

Role of Technology in Reducing the Disability of Learning English

A. Prem Kumar

M.A. English

Thanthai Hans Roever College (Autonomous)

Perambalur

Ta.Prem2010@Gmail.Com

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Abstract

The use of technology has become an important part of the learning process both inside and outside of the classroom. Every language class usually uses some form of technology. Technology has been used to both help and improve language learning. Technology enables teachers to adapt classroom activities, thus enhancing the language learning process. Technology continues to grow in importance as a tool to help teachers facilitate language learning for their learners. This study focuses on the role of using technologies in learning English language. It discussed different attitudes which support English language learners to increase their learning skills through using technologies. In this paper, the researcher explained the use of technology in learning English and it also explains how technology helps in reducing the difficulties of students with mild learning disabilities in learning English and also about various ways available to improve the language skills using technology.

Introduction

Educational technology makes the process of teaching and learning English more effective and efficient. It can bring our desirable modifications in the behavior of teachers and pupils by improving the teaching and learning language skills. In education multimedia is used to produce computer-based training courses. The multimedia instructional strategies have the potential to facilitate better communication and retention in the teaching-learning process. The use of different media in the teaching and learning processes helps to meet the diverse needs of the learners.

Technologies for Students with Mild Learning and Behavioral Disorders

Students with learning disabilities and emotional problems account for nearly 60% of all children receiving special services in schools today, and their numbers are rising each year. These students often have persistent problems in learning and behaving appropriately in school, problems that may become apparent only after teachers work with the students for weeks or months. Such students are likely to be given a broad label indicating only that their academic and social progress is unsatisfactory because of a disability, and their problems often persist despite a teacher's efforts to meet their students' needs within the regular program. Most children with mild learning disabilities spend at least some portion of the school day in the regular classroom, even though many of these students find it difficult to keep up with their non-disabled peers and their teachers often find it

difficult to spend significant amounts of time in providing them with individual attention. Technology has proven to be an effective method of giving such students opportunities to engage in basic drill and practice, simulations, exploratory, or communication activities that are matched to their individual needs and abilities.

The research is examining the potential benefits of computer-based instruction that is grounded in basic learning theory and is the same for all students, including both those with and without mild disabilities. This research indicates that use of technology can enhance a student's acquisition of skills and content knowledge when the computer is used to deliver well-designed and well-managed instruction. A teacher's ultimate goal is to help students develop skills and knowledge that can be used in real-world settings. Many computer-based applications such as the Internet, communication technologies, CD-ROM reference materials, and multimedia presentation tools-can provide students with opportunities to use their skills to engage in projects that address real-world problems.

Word Processing Software

The attributes of word processing that lead to its effectiveness as a learning tool for children with special needs and generally the same attributes that makes it effective for children in general. For example, in ease of revising text, producing clean and readable text, and feeling a sense of authorship are frequently mentioned as attributes of word processors that lead to improved writing. Researchers have found that students are more willing to edit their work and to make necessary corrections on a word processor than on handwritten drafts. In addition, the word processor frees students from the more tedious duties related to the editing process, enabling them to spend more time on the content of their written products. These benefits are significant for many students with mild learning disorders related to deficits in written language skills, who often need to spend a significant amount of time in rewriting a passage to communicate an idea clearly. Word processing is also especially helpful for those students who struggle with delays in fine motor skills that impair their ability to write legibly. Thus, teachers still must provide instruction in writing to make a difference, word processing software can have significant benefits for students with mild learning disabilities by allowing them to participate in the writing process with greater ease.

Word Prediction Software

Word Prediction software is another example of a computer-based technology that can help students to communicate in written language more easily. This software, when used in conjunction with traditional word processing programs, reduces the number of keystrokes that are required to type words and provides assistance with spelling for students of various ability levels. For example, in one application, a list of words appears that begins with the letter a student presses on the computer keyboard. As additional letters are added to the sequence, the list is updated to limit the words to the sequence that has been entered. When the desired word appears on the computer screen, the student simply selects the word to insert it into the written text. Some applications require the students to select the desired words from a list displayed on the computer screen; other applications enable the computer to read the words aloud. In addition, some word prediction programs provide words solely on the basis of the sequence of letters entered; others give consideration to the

grammatical aspect of the words already present in the sentence. Still other applications limit the words provided to those that the student most often uses.

Students with mild learning disabilities benefit from the support that word prediction software offers as they attempt to produce written documents. Many-times students with communications deficits will avoid the use of longer words and complex thoughts to avoid frustration with the act of writing. But word prediction software allows students with mild learning disabilities, as well as those with mild communication and motor impairments, to express their words and ideas in the vocabulary that more closely reflects their thinking, rather than in the vocabulary that is easiest to spell. Thus, with the help of word prediction software, students with mild learning disabilities are better able to compete academically in regular classroom settings.

Communication Technologies

Use of computers for communication and networking activities via the Internet can expand the learning environment beyond the walls of the classroom and allow students with disabilities, just like other students, to access and send information literally around the world. Yet improved access and delivery systems do not necessarily bring improved instruction. To the contrary, improved learning is dependent upon the quality of instruction and not on the medium through which it is delivered. Communication technologies become a powerful tool for learning only if they offer students opportunities to gather a wide variety of resources and information and then to exchange their thoughts and ideas with others in collaborative learning environments, networked through the Internet.

The ability to collaborate on meaningful projects is especially beneficial for students with learning disabilities because they often have both academic and social needs to be addressed. Collaborative efforts can foster academic learning among these students by providing more “knowledge construction” activities, such as generating new ideas and building on the thoughts of others as a topic is analyzed, and by actively engaging them in the learning process. Research has shown that students of all ability levels learn more when they are involved in such knowledge construction activities. Research also has demonstrated that different types of discourse have been associated with different levels of thinking processes. For example, questions that require students to simply restate or paraphrase information impose less complex cognitive demands than questions whose answers result in explanations, inferences, justification, hypotheses, and speculations. Thus, by providing more opportunities to communicate in different ways, communication technologies can help students with mild learning disabilities engage in more complex cognitive tasks and can result in powerful instruction for these students. In addition, communication technologies can help to meet and know the social needs of students with mild learning disabilities. For example, one teacher consultant found that hospitalized students with emotional disabilities valued opportunities to interact with other students via e-mail because their disability “disappeared” in these communication environments. The hospitalized students became more willing to create written text, and their grammatical skills improved, when they were given the opportunity to communicate online with other disabled students who were enrolled in special education classes across the country. Over the Internet, the students shared descriptions of themselves and of their feelings and were able to learn

about others. Consequently, the technology facilitated the students' ability to make personal connections with others and provided opportunities to focus on writing skills within a context that they valued. Communication technologies can also foster social learning by connecting students in one to one. Communications and even between two individual students with learning disabilities to gain information or to practice communication skills in a real-world environment without fear of being stigmatized because of their disability.

Types of Multimedia and Their Classroom Applications

There are numerous types of multimedia. Below we review a selection of different multimedia forms, focusing on their potential for supporting diverse learners.

Talking Books and Speech Synthesis

Digital texts can be read aloud using recorded human voice or synthetic text-to-speech programs. Read aloud is an intrinsic feature of so-called talking books, but with text-to-speech software, virtually any digital content including web-based texts can be read aloud, with or without synchronous highlighting of the printed text. Speech synthesis can be segmented at a variety of levels, providing feedback at the level of the passage, sentence, word, onset rime, syllable, or sub syllable. Read-aloud offers potential benefits to many students, including students with visual defects, students with decoding problems, and reluctant readers. In addition to providing access to curriculum content for those who cannot see or decode printed text, read-aloud can support the development of key literacy skills such as fluency and reading comprehension, and increase engagement and motivation.

It is also a beneficial writing tool. It may be easier for students to recognize errors when listening versus and reading a composition. By using text-to-speech to read back the text they have written, students may be able to revise more successfully.

CD-ROM Story Books

CD-ROM storybooks offer digital text in combination with features such as animations, illustrations, speech, and sound. For example, a CD-ROM storybook might offer the story text together with animations, vocabulary definitions, and sound effects. Some storybooks incorporate an audio version of the text. CD-ROM storybooks offer great potential for engaging students, and some incorporate valuable literacy supports. Thus, they can benefit reluctant readers and students with deficits in basic literacy skills. However, their multimedia features are not always instructionally germane. Some storybooks features entertaining animations and sound effects that while entertaining do not directly support access or learning. In fact, they may be distracting for some students. Thus, teachers are wise to select CD-ROM storybooks carefully and with consideration of individual student characteristics.

Video/Video Discs

Video/videodiscs offer a means to contextualize curriculum content and instruction across the curriculum. For example, video can be used to teach grammar instruction to an authentic context. That is, video can be used to present to students a real-world context within which grammatical

errors can be taught clearly. Video/videodisc-based anchored instruction can similarly be applied to contextualize instruction in other content areas. These approaches are valuable in helping to engage and motivate students, in providing students with alternatives to text, and in supporting differences in background knowledge.

Hyperlinks and Multimedia Environments

In addition to communication technologies that provide students with new ways to access information worldwide, other technologies help students make flexible connections between different text-based documents (“hypertext”) and between different types of media, such as text, photographs, television, video, sound, graphics, and computing (commonly referred to as “hypermedia” or “multimedia”). Recently, educators have begun to examine the possibilities of these technologies in offering for students with mild learning disabilities.

Hyperlinks

The concept of hyperlinks is not new, in fact speculation about such devices dates back more than 50 years. Text with hyperlink, or “hypertext,” enables users to access electronically linked resources with the click of a mouse, leaping through vast amounts of textual information in a non-sequential manner. Hypertext is a web conceptually somewhat like a dictionary or an encyclopedia with complex interdependencies among units of information that users can jump between in ways that are similar to the way the human mind thinks. Hyperlinks enable students to jump to electronic units of information with the speed and freedom of human thought, creating meaningful learning experiences through quick and easy links between new and previously learned information.

Hyperlinks are helpful for all students, but they can be especially helpful for students with mild learning disabilities. If a student is reading a book and encounters a reference to another work that would enhance understanding of the content, for example, normally it would be necessary to turn to the bibliography to get the complete reference and then visit the library to track it down. This process is cumbersome for all students, but students with learning disabilities who lack reading skills are especially likely to abandon the search in frustration. If a hypertext version of the book were available on a computer, however, students could simply use a mouse or other pointing device to click on the reference and instantaneously view the referenced article or click on a word they don’t understand to jump to a computer-based thesaurus and browse related words. Several studies have shown that students prefer to access reference material electronically rather than by using text-based resources. In addition, while many students with mild learning disabilities relate a long history of failure and frustration with traditional print-based documents, few have experienced failure with these hyperlink technologies. At the same time, some researchers caution that hyperlink technologies have the potential to overwhelm those students whose problems cause them difficulty in organizing information. For example, studies have demonstrated that many students with disabilities have significant difficulties retrieving requested information from both traditional and electronic versions of encyclopedias. This research suggests that to ensure that students with disabilities have a positive experience using hyperlinks to conduct research electronically; teachers still must spend time teaching them how to locate and organize specific information from data sources, and the same would be required when using more traditional reference sources.

Multimedia Environments

Multimedia environments are a relatively new extension of the hypertext concept. The educational use of multimedia environment is best described as an electronic means of linking various media in new and different ways in activities that can facilitate fundamental learning and thinking. For example, multimedia can help deepen students' conceptual understandings by linking visual imagery and sound effects to information that is difficult to understand when presented in text alone. Research demonstrates that learning environments that incorporate dynamic images and sound are especially helpful for students who have limited background knowledge in a subject, which is often the case for students with learning disabilities.

Multimedia applications also provide students many ways to express their knowledge other areas than in writing. As discussed above, many students with mild learning disabilities are reluctant writers. By providing these students with alternative ways to demonstrate what they have learned, multimedia applications can be very motivating. The technology provides a tool for students with disabilities to express themselves, and an opportunity for them to showcase unique abilities and talents that are generally not revealed in traditional school assignments. Multimedia projects can be especially important for students with disabilities who seldom have the opportunity to demonstrate their strengths in school. For example, in a study in which students with mild learning disabilities were given a choice of formats for demonstrating their knowledge to others, all chose to create multimedia-based projects. They said they preferred the multimedia projects because the format allowed them to express themselves in many ways that linear text did not. Classroom teachers have also noted that students with mild learning disabilities often demonstrate higher-level performance and attention to detail working on multimedia projects than they normally exhibit. And computer technology not only facilitates the creation of multimedia products, it can also facilitate the sharing of such projects. For example, after they complete their work, students can transfer the products to videotapes or CD formats, which can then be placed on a class Web page or in the school library as reference material. Such sharing of products has been shown to have significant benefits for students with mild learning disabilities because it offers them the opportunity to be the author of a "real" product, and to be seen - and to see themselves- as capable learners in school environments.

Conclusion

Use of multimedia is one of the effective instructional methods that used for children with learning Disabilities. It provides opportunity for students to learn English in many ways. The use of difference multimedia applications could facilitate the process of acquiring the various communication skills that are needed for students and it create a wide range of learning opportunities for learning Disabled children to learn English easily.

References

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