

WHAT ARE THE EFFECTS OF USING COMPUTERS ON TEACHING DISABLED SCHOOL STUDENTS AT KARAK SCHOOLS IN JORDAN?

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Abstract-- Nowadays, it becomes very important to use technology in different educational fields as they have the potential to enhance the learning process and makes it more organized with less time and effort. "Technologies are described as essential tools in the educational system to improve teaching in different areas" (Sandholtz, 1997, p. 5). Technology meets the need of students with different abilities and facilities. Students with special needs need to have special educational support to help them learn smoothly. In fact, many schools, institutions and universities have started to integrate technology such as computers to support disabled students. In fact, Manuguerra (2011) claims that "such technologies have the potential to fundamentally change the ways that learning and teaching are carried out," which help students a lot (p. 2).

Key words-- disabled, technology

I. INTRODUCTION

Phenomenon

Nowadays, it becomes very important to use technology in different educational fields as they have the potential to enhance the learning process and makes it more organized with less time and effort. "Technologies are described as essential tools in the educational system to improve teaching in different areas" (Sandholtz, 1997, p. 5). Technology meets the need of students with different abilities and facilities. Students with special needs need to have special educational support to help them learn smoothly. In fact, many schools, institutions and universities have started to integrate technology such as computers to support disabled students. In fact, Manuguerra (2011) claims that "such technologies have the potential to fundamentally change the ways that learning and teaching are carried out," which help students a lot (p. 2).

Research Question

In order to prove that importance of using computers in teaching disabled students, this research attempts to show the Effects of using computers on teaching disabled school students. This research clearly answers the question: What are the Effects of using computers on teaching disabled school students at karak Schools?

II. LITERATURE REVIEW

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Today's children are the first generation of the "digital age." Because of the influx of new computer-based technologies that provide more pervasive and faster worldwide links to commerce, communication, and culture. The changes over the past decade Technology to prepare all students to use technology .

Technology can be the great equalizer in a classroom with diverse learners. Whereas teachers can find it difficult to differentiate instruction for many students in one class, all with different needs and abilities, "assistive technology" (devices and software to assist students with disabilities) can often help teachers personalize lessons and skills enhancement to each child. Children with learning disabilities often have better technology skills than their teachers and are drawn to computers, so using them in the classroom makes perfect sense(Holzberg,1994).

The students of special needs are using computer, because of the current movement in computers today. Also, Computer instruction should focus on meaningful comprehension. Computer use should foster active involvement and stimulate thinking (Bowe, 1994).Also, computer helps the students of special needs in two ways: it can help the student learn how to complete the task and it can help to bypass an area of difficulty. For example, when a student decides to listen to a digital version of a book, they are bypassing an area of difficulty.

Hasselbring , Glaser CH(2000)refers to , not only can computer technology facilitate a broader range of educational activities to meet a variety of needs for students with mild learning disorders, but adaptive technology now exists that can enable even those students with severe disabilities to become active learners in the classroom alongside their peers who do not have disabilities. For example, use of computer technology for word processing, communication, research, and multimedia projects can help the students with specific learning and emotional disorders keep up with their nondisabled peers. Computer technology has also enhanced the development of sophisticated devices that can help the many students with more severe disabilities in overcoming a wide range of limitations that hinder classroom participation--from speech and hearing impairments to blindness and severe physical disabilities.

Following are descriptions of some computing applications that have been used effectively by individuals with specific learning disabilities.

III. WORD PROCESSORS

Computer-based accommodations for Dyslexia, a learning disability that affects skills in reading and writing, may not require specialized hardware or software. For example, a person with Dyslexia can benefit from regularly using built-in word processor features such as the following:

- Spelling checking
- Grammar checking
- Font size and color changes

IV. READING SYSTEMS

An individual who can take in information through listening much better than by reading may benefit from using a reading system. These systems allow text on screen (document, web page, or email) to be read aloud through the computer's sound card.

V. CONCEPT MAPPING

Some individuals have difficulty organizing and integrating thoughts and ideas while writing. Concept-mapping software allows for visual representation of ideas and concepts. These representations are presented in a physical manner and can be connected with arrows to show the relationship between ideas. These graphically represented ideas can be linked, rearranged, color-coded, and matched with a variety of icons to suit the needs of the user.

VI. PHONETIC SPELLING

People with Dyslexia often spell phonetically, making use of word prediction or spelling-checking software less useful. Devices that render phonetic spelling into correctly spelled words may be useful tools.

VII. WORD PREDICTION

Spelling words correctly while typing can be a challenge for some people with Dyslexia. Word prediction programs prompt the user with a list of most likely word choices based on what has been typed so far. Rather than experiencing the frustration of remembering the spelling of a word, he can refer to the predictive list, choose the desired word, and continue with the expression of thoughts and ideas.

VIII. SPEECH RECOGNITION

Speech recognition products provide appropriate tools for individuals with a wide range of learning disabilities. Speech recognition software takes the spoken word via a microphone and converts it to machine-readable format. The user speaks into a microphone either with pauses between words (discrete speech) or in a normal talking manner (continuous speech). The discrete product, although slower, is often the better choice for those with learning disabilities, because identifying errors can be done as they occur. Making corrections after the fact using continuous speech requires good reading skills. Because many people with learning disabilities have reading problems, speech recognition is not always an appropriate accommodation.

IX. ORGANIZATIONAL SOFTWARE

Organizing schedules and information is difficult for some people with Dyslexia and/or nonverbal learning disorders.

X. TALKING CALCULATORS

A talking calculator is an appropriate tool for people with Dyscalculia, a learning disability that affects mathematics skills. The synthesized voice output of a talking calculator provides feedback to the user that helps them identify any input errors. Additionally, hearing the calculated answer can provide a check against the transposition of numbers commonly reversed in reading by people with Dyslexia or Dyscalculia.

Finally ,technology has the potential to freeing many students from their disability in a way that allows them to achieve their true potential. More widespread use of technology would meet both the legal requirements and the spirit of the laws calling for students with special needs to be educated in the least restrictive environment.

XI. METHODOLOGY

INTRODUCTION

As has been pointed out before, it magnificent how computers can help students with special needs by making the process easier, faster and much more interesting than only using bored textbooks. Our literature review indicates the importance of using computers in teaching disabled students and based on that this part of the paper aims to examine to which extent this can be applied on such students at karak schools.

XII. AIMS

This research attempts to find out the positive effects of using computers in teaching disabled students. The literature review has given a lot of proves to support that. This methodology tests the integrity of the previous statement by applying this at the students with special needs at karak schools.

XIII. INSTRUMENTS

A questionnaire is used as an instrument for this research. The following charts would be a summary of this the methodology.

XIV. PARTICIPANTS

In this survey, we are targeting school teachers as they are the eyes on what is happening at schools and how computers are used to help students with special needs to learn. Participants are all teachers from different schools in karak district. We are seeking to have 50 participants. However, the number of participants has reached 41 teachers (whom are under training). That could be because we could not reach many of them.

XV. DATA COLLECTION INSTRUMENTS

The survey is in one page only. It consists of a short introduction, four multiple choice questions and three yes and no questions. The questions aim to find out to which extent teachers believe in the importance of using computers when teaching disabled. To prove the answer of the previous questions, the next ones test teachers' knowledge about the programs in the computer to achieve the goal.

XVI. RESULTS AND DISCUSSIONS

In this part, we provide the results of the survey with a brief dissection. It will connect what we found out from the literature review to the results of the survey which was applied on the teachers of Karak Schools.

What we found from the survey is that teachers realize the importance of using computers in teaching students with special needs as 97.7% of the participants replied positively in the third question and 92.7% of them motivate their students to use computers. However, participants are contradicting themselves as they motivate and believe on the concept of using computers with challenged students and at the same time 70.7% (29 teachers out of 41) know nothing about the computer programs used in teaching disabled. The following chart shows that.

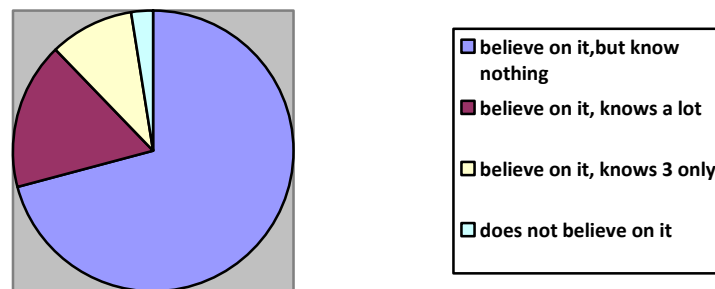
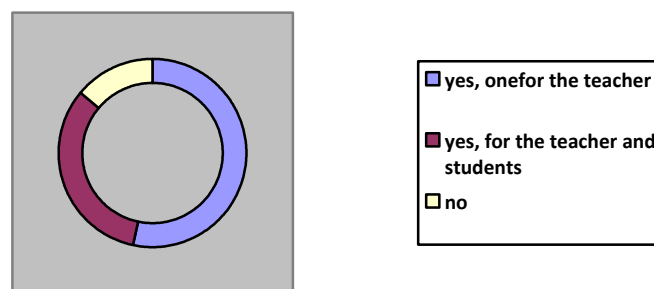


Figure (1.1)

The second part of the survey has two parts as well one led to the other one. Question four and seven ask whether having a computer support the lesson and makes it more affective and the answer was positive as 39 support the previous statement. On the other hand the existence of those computers in the classroom is questionable. Question number five asks if there is a computer in the classroom and the answers are:



What is great is that 88.4% of the teachers in the second question do use computers during the lesson.

In brief, this part of the research concentrates on the result of the methodology.

XVII. CONCLUSION

A firm conclusion should be drawn to such a research as it highlights one of the important issues in the educational field. Disabled are an important part of the society, so enlightening them with knowledge is very important. Here comes the question of how to deliver the knowledge to those students who are incapable of doing some activities, but mentally so clever?

The paper has talked about the effects of using computers on teaching disabled school students at karak Schools. It is organized as follows.

- Introduction
- Literature review
- Methodology
- Results and discussion
- Conclusion

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