

Technology as a Learning Tool

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ABSTRACT

Technology applications from the simplest to the most complicated has changed the way teachers teach and how students learn. The importance of using technology tools in the classroom has become a source of educational interest in recent years. This study aims to investigate Libyan English language teachers' attitudes towards integrating technology in teaching EFL students. The use of technology in the EFL classrooms is seen as highly beneficial for language learners and has been addressed by several writers. The birth and rise of the Internet and the World Wide Web since its inception in the 1980s has allowed both language teachers and students to explore various methods of learning. By incorporating technology into the teaching of English, Finally, encouraging the use of educational technology in secondary language education has wider implications. As Dooly (2008: 23) mentions, if we are truly interested in preparing our students to be responsible citizens in an increasingly technologically advanced society, then our way of teaching our students must reflect this.

Introduction

Today's children are the first generation of the "digital age." (David Graddol-2004) .They are being raised in a society that is changing rapidly as a result of the influx of new computer-based technologies that provide more pervasive and faster worldwide links to commerce, communication, and culture.

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There are many theories and researches in child development that tell so much about how young children learn. We know that, like children all over the world and throughout time, children need to play. We know that learning in the early years is active—that kids learn through direct play and hands-on experiences with people, with materials, and in nature. Kids need first-hand engagement—they need to manipulate objects physically, engage all their senses, and move and interact with the other world. This is what maximizes their learning and brain development. A lot of the time

children spend with screens takes time away from the activities we know they need for optimal growth. We know that children today are playing less than kids played in the past (Zhanghongling- 2005). Researchers who have tracked children's creativity for many years are seeing a significant decrease in creativity among children for the first time, especially younger children from kindergarten through sixth grade. This decline in creativity is thought to be due at least in part to the decline of play.

What children see or interact with on the screen is only a representation of things in the real world. The screen symbols aren't able to provide as full an experience for kids as the interactions they can have with real world people and things. And while playing games with apps and computers could be considered more active than TV viewing, it is still limited to what happens between the child and a device—it doesn't involve the whole child's body, brain, and senses. In addition, the activity itself and how to do it is already prescribed by a programmer. What the child does is play according to someone else's rules and design. This is profoundly different from a child having an original idea to make or do something.

Objectives of the study:

The objectives of this research study are to:

1. determine the different kinds of technology integrated by English language teachers in teaching EFL students,
2. determine whether teachers are prepared to use technology in teaching EFL students.

1- Effective Use of Technology as a Learning Tool

Studies conducted on the effectiveness of technology in the classroom often

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have mixed results, making it difficult to generalize about technology's overall impact in improving learning.

Although today's research can support only limited conclusions about the overall effectiveness of technology expenditures in improving education, studies conducted to date suggest that certain computer-based applications can enhance learning for students at various achievement levels.

2- What is Assistive Technology?

Assistive technology can be defined as any item, piece of equipment or system that helps people bypass, work around or compensate for learning difficulties (Else-2009). Assistive technology is an umbrella term, which can be divided into two main groups: hardware and software. Hardware refers to actual equipment. For example, tape recorders and calculators are two common types of hardware. On a computer, the hardware includes the central processing unit (the computer's "box"), the monitor (the screen) and the internal circuit boards. Software, on the other hand, refers to the programs that run on computers, telling the computers what to do.

The purpose of assistive technology is to work around specific deficits, rather than fixing them. It helps people with learning differences reach their full potential and live satisfying, rewarding lives. Assistive technology, however, should be a part of an overall program to help individuals with learning differences.

3-Why Use Assistive Technology.

Learning disabilities are professionally diagnosed learning difficulties—with reading, writing, speaking, listening, spelling, reasoning or math—that are the result of a reputed central nervous system dysfunction. Learning disabilities are neither cured nor outgrown.

Children with learning differences grow up to be adults with learning differences. However, with hard work and helpful tools, children with learning differences can greatly improve their success in these areas.

Assistive technology is one such tool. Although we tend to think of learning differences in terms of the school setting, individuals with learning differences must also function at home, in the workplace, at social gatherings and in leisure activities. Easily portable tools—many of which are pocket-sized—allow

individuals to bring a bypass strategy into many different settings. Now a person with a learning difference can write a letter to a friend at home on a word processor.

He can check for spelling errors at the library with an electronic spell checker, or keep score in a card game at a friend's house with a calculator.

Assistive technology provides support to "get the job done."

Finally, assistive technology helps increase the independence of persons with learning differences. Many times, these individuals rely on parents, siblings, friends and teachers for help. Yet over-reliance on others may slow the transition into adulthood. It may also lower self-esteem, as it requires persons with learning differences to depend on others, rather than themselves, to solve a problem. Assistive technology provides a means for people with learning differences to accomplish specific tasks on their own.

4-Types of Assistive Technology

It is important to understand that not all technologies are appropriate for all individuals. People have their own unique set of strengths, weaknesses, interests, experiences and special abilities. Therefore, a technology that may be a blessing for one person may be useless for another. In the same way, a technology that is appropriate for one purpose in a particular setting may be of little value in another situation. So, when choosing an assistive technology, consider the specific individual, the setting and the task(s) to be performed.

-Written Language Technologies

Word processors are computer-based writing systems that enable the user to type text onto a computer screen before printing on paper. In this way, the user can easily remove or add words, move sentences, and correct punctuation and spelling. Text is also easily underlined, boldfaced or centered. The ability to rearrange text in these ways may help reduce a writer's fear of making errors, since the text can be changed easily. This frees the user to focus on what she/he wants to express, rather than on making the paper error-free. She/he can be confident that her efforts will result in a neat, clean and presentable document—something she can feel proud of.

Spell checkers are part of most word processing programs. They are also available as stand-alone desktop and pocket-size tools. Those attached to

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word processors scan a written document, show the user (usually by visually highlighting the word) any misspelled words, and offer a list of suggestions for the correctly-spelled word. Stand-alone spell checkers require users to enter the word (the way they think it is spelled) on a small keyboard. Some devices will simply verify and correct the spelling on a small screen; others offer a complete dictionary and thesaurus. Other devices actually “speak” the words by means of a speech synthesizer, allowing the user to hear as well as see text.

However, spell checkers do have limitations. For example, when two words sound the same but have different meanings (such as “there” and “their”), the spell checker does not indicate when the wrong word/spelling has been used. Additionally, spell checkers often do not recognize the misspellings of persons with learning difficulties and are unable to offer suggestions for the correct spelling of a word.

Proofreading programs are sometimes called “grammar checkers” as well. They are used in combination with word processing programs to check for errors in grammar, punctuation, capitalization and word usage.

Suspected errors are identified on the computer monitor, and the user is given a chance to correct them before printing the document.

Unfortunately, many proofreading programs are not completely accurate; they may miss a number of errors. They may also prompt the user to change parts of the text that were not incorrect.

Speech synthesizers, together with screen review software, enable the user to hear text on a computer screen spoken aloud.

Words are spoken in a computerized or “synthetic” voice through a sound card installed either inside or outside the computer. Users can review text they have written by reading it on the computer screen while, at the same time, hearing the words spoken aloud. Hearing the text may help persons catch writing errors—such as problems with grammar, or words that

have been left out—that they might not have noticed by reading it. Listening to text may also help users determine if their writing makes sense, and if it really means what they are trying to say. Speech synthesis is especially helpful to those who are better listeners than readers.

Speech recognition systems allow a person to operate a computer by speaking

to it. If speech Brain storming/Mind mapping programs enable writers to create a diagram of their ideas before writing an outline. First, the user types a main idea into the computer. That idea is displayed on the computer screen. Then the user types in related ideas that appear in different shapes—such as circles, ovals or rectangles—surrounding the main idea.

Ideas can be linked with the main idea, or with each other, by lines. Ideas are easily moved and placed into different groups. After the diagram is completed, it can be changed to an outline automatically. This “free-form” graphic approach can be quite helpful to individuals who find it difficult to express their ideas in writing.

Word prediction programs work together with word processors. These programs predict the word a person wants to enter into the computer.

The person types the first letter of a word, and the program offers a list of words beginning with that letter. If the desired word appears, it can be chosen from the list by pressing the number on the keyboard that is displayed next to that word—or by pointing and clicking with the mouse. That word will automatically insert into the sentence. If the desired word does not appear on the list, the user continues to type the next letter until it does appear. After the user chooses a word, the computer predicts the next word in the sentence. Again, it offers a list of possible words, even before the first letter is typed. Predictions are based upon the sentence content and spelling, as well as the number of times a word is used. Word prediction may be helpful to individuals who have problems with keyboarding, spelling or grammar. These programs may also assist people who struggle to come up with the exact word they want to use in a sentence.

-Reading Technologies

Optical character recognition (OCR) systems, when shared with speech synthesis, might be thought of as reading machines.

The OCR enables the user to input hard copy text, such as books and letters, directly into a computer. The computer— or, more specifically, the speech synthesizer – reads the text back out loud.

In this way, the individual can hear as well as see the text.

Variable speech control (VSC) tape recorders enable the listener to play audiotape text faster or slower than it was originally recorded, without losing

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the actual sounds of the words. This feature may be quite useful for persons who understand spoken language better when the material is presented at a slower pace. On the other hand, some individuals find that they can review material faster by speeding up the tape. VSC tape recorders typically allow listeners to slow down the original recording speed by 25% and increase the playback speed up to 100%.

-Listening Technologies

Personal FM listening systems bring a speaker's voice directly into a listener's ear by means of a small transmitter unit (with a microphone), and an equally small receiver unit (with a head- or ear- phone). These wireless systems make the speaker's voice sound stronger, which benefits those who have difficulty focusing on what a speaker is saying. A dial on the receiver unit controls the volume.

Tape recorders are used to capture spoken information, such as a teacher's instructions or a classroom lecture. This permanent record allows people to refer back to an oral presentation. People who have difficulty processing, understanding or remembering what they hear may find this helpful. VSC tape recorders may be particularly helpful, since they allow the user to slow down or speed up the recording.

5-Too little play can affect child development

“A child who is not being stimulated, by being ... played with, and who has few opportunities to explore his or her surroundings, may fail to link up fully those neural connections and pathways which will be needed for later learning.” (Sutton-Smith 1997, p. 17).

Because play promotes brain growth and development, “children who do not have sufficient opportunities to play will experience impaired brain development and flexibility. These conclusions are based on animal studies, though work with extremely deprived children indicates a similar effect” (Else 2009, p. 85).

Children who do not play or who do not have the opportunity to play are at increased risk for abnormal development and deviant behavior. Without play, self-control does not develop adequately.

“When we are in peril, play will disappear. But studies show that if they are

well fed, safe, and rested, all mammals will play spontaneously” (Brown 2009, p. 42).

Panksepp-2007, believes that there is an optimum level of active social play necessary every day. Like sleep deprivation, play deprivation has adverse consequences. Without play, optimal learning, normal social functioning, self-control, and other cognitive functions may not mature properly.

Over the past half century, in the Western world, children’s free play with other children have declined sharply (Chudacoff 2007). Over the same period, anxiety, depression, suicide, feelings of helplessness and narcissism have increased sharply in children, adolescents, and young adults.

6-Play and the Brain

A performance that is present in the young of so many classes must have an evolutionary advantage, otherwise it would have been eliminated through ‘natural selection’. What might be the advantages of play? Play increases brain development and growth, establishes new neural connections, and in a sense makes the player more intelligent. It improves the ability to recognize others’ emotional state and to adapt to ever-changing circumstances. Play is more frequent during the periods of most rapid brain growth. Because adult brains are also capable of learning and developing new neural circuits, adults also continue to play.

Some newer thinking proposes it is more than that. Play seems to have some immediate benefits, such as aerobic conditioning and fine-tuning motor skills, as well as long-term benefits that include preparing the young for the unexpected, and giving them a sense of morality. How? Learning to play successfully with others requires ‘emotional intelligence,’ the ability to understand another’s emotions and intentions. Play helps to level the playing field and promotes fairness. Justice begins with healthy social play (Azar 2002)

What are the benefits of play in a child’s life? A child who has been allowed to develop play resources receives many enduring advantages. Play promotes joy, which is essential for self-esteem and health. The learning process is self-sustained based as it is on a natural love of learning and playful engagement with life. (www.originalplay.com/develop.htm)

- Creates joy, relationship, self-esteem and mastery not based on other’s loss

of esteem .

- Improves emotional flexibility and openness.
- Increases calmness, resilience and adaptability and ability to deal with surprise and change .
- Play can make well emotional pain.

7-Teacher Support

Useful use of computers in the classroom requires increased opportunities for teachers to learn how to use the technology.

Studies show that a teacher's ability helps students depend on a mastery of the structure of the knowledge in the area to be

taught. Teaching with technology is no different in this view. Several literature surveys link student technology achievement to teachers' opportunities to develop their own computer skills. Yet teachers usually are required to devote almost all of their time alone preparation and performance, with little time available for training in the use of technology.

-Social benefits of play

- Increases empathy, compassion, and sharing .
- Creates options and choices.
- Models relationships based on inclusion rather than exclusion .
- Improves nonverbal skills .
- Increases attention and attachment

-Physical benefits

- Positive emotions increase the efficiency of immune, endocrine, and cardiovascular systems .
- Decreases stress, fatigue, injury, and depression.
- Increases range of motion, agility, coordination, balance, flexibility, an fine and gross motor exploration .

8-Play and Technology

Toys have always reflected the latest developments in science and technology, from music boxes to electric trains to computer games and robots. Today's toys contain embedded electronics that appear to have the capacity to adapt to the abilities or actions of the player, seem to interact with one another or with a

computer or smart phone.

The first 'smart toys' appeared in the UK in 1996. Smart toys share three essential purposes: they are designed to teach a skill, make learning fun, and engage the child in doing rather than passively watching something. The technology should not just be for show; it should have a purpose. How a toy impacts a child's development depends on how it is used, the interaction it promotes, the language used to discuss the toy, and the level of pretend play it generates.

A variety of toys have been developed to teach phonics, vocabulary and fluency to preschool and early school age children. The use of 'speaking' toys in preschool has been shown to facilitate children's speech, vocabulary, and pre-reading skills. There is little research on whether 'smart' toys increase children's IQ or later success in life. Studies are beginning to look at what can be learned with some of these devices. Some benefits of smart toys occur because they engage the child in 'open-ended' play. Electronic toys and digital games keep children on task for a longer period of time.

9-Use Technology in Teaching English

As the use of English has increased in popularity so has the need for qualified teachers to teach students in the language. It is true that there are teachers who use 'cutting edge' technology, but the majority of teachers still teach in the traditional manner.

In fact, till date they are proving to be useful also. However, there are many more opportunities for students to grow confidence practice and extend themselves, especially for ESL students who learn the language for more than just fun. For them to keep pace with ELT and gain more confidence they have to stride into the world of multimedia technology.

10- Provide Flexibility to Course Content:

In addition, multimedia teaching is also flexible. It is obvious that the context can be created not only in the classroom, but also after class. Multimedia language teaching can also create a multimedia language

environment for the purpose of conducting language teaching. English teaching itself must focus on the guidance of teachers and be student-centered (see, for example, Holec, 1981), which we believe is one of the principles for language

teaching. Students are bound to have some problems in classroom teaching, which can be addressed under the guidance of teachers. In such circumstances, students can use the new

technology to their advantage, such as manipulating the network to contact teachers, and receiving answers by email.

11- Conclusion

Technology integration education appears to strongly influence teachers' attitudes toward computers. The direct effect of teacher technology integration education on students is weaker although also present. Training appears to foster meaningful use by teachers in the classroom, which, in turn, fosters student Computer Enjoyment and later a perception of importance of computers. In addition, however, it also appears that greater positive perception of Computer Importance among the students in a classroom also fosters higher Computer Anxiety in their teachers. This implies that teachers need some mechanism at their disposal—ongoing education, for example—that continues to reduce their

anxiety more rapidly than the advancing skill level of their students, which tends to put pressure on them, causing teacher anxiety levels to increase. Findings from this study support the contention that funding ongoing technology integration education for teachers is a crucial component for having technology make a difference in the education of our students.

English language teachers have always been concerned with the use of new technology. The technology may have changed over time, but the challenge of managing it and of finding creative ways to utilize it is much the same.

It is no longer a question of whether we should use computers in education. There is no longer an option. The questions to be answered are how, when, and where we should be using them, what the roles should be and who should be engaged in those roles. (zhanghongling-2005)

However, the vast changes in technology since the advent of the computer are of a different order from technological changes in past years. The potential uses of the computer in the classroom are requiring us to do more than simply learn to operate a new machine. They are requiring us to change the way we think about and use information, and to change the way we communicate. This is important for both teachers and students.

For many teachers, the issue of computers in the classroom engenders feelings of insecurity, anxiety – and even downright terror. Others seek answers with great enthusiasm. Almost all of us, however, need some guidance, some encouragement, and some examples to follow.

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