Role of Technology in Teaching Language

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ABSTRACT: As the number of English language learners continues to grow, educators are seeking effective programs and instructional strategies to serve them. Any center for applied linguistics should provide a comprehensive range of research-based language and cultural education resources and testing tools. Teachers could adapt best curriculum and instructional strategies for students learning English. They must provide a variety of materials and technology to help English language learners in the classroom. Technology lends itself to exploration. But before technology can be used effectively, exploration must be valued as important to both teaching and learning.

Teaching—especially in the humanities—should always strive to move beyond the simple divulging of facts and knowledge or even the training of certain skills. Learning, of course, is the main purpose of education. It is the goal of every student and the task of every teacher to increase knowledge and understanding in the classroom.

The present paper tries to show general frame and importance of technology applied for teaching of language. Then, the role of technology as well as learning will be explained. It is hoped to come to some conclusions by showing some corrections in the strategies and curriculums of English language teaching programs.

KEYWORDS: Technology, Learning, Teaching, Tools

INTRODUCTION

Teachers are being asked to learn new methods of teaching, while at the same time are facing even greater challenges of rapidly increasing technological changes and greater diversity in the classroom … [given such challenges] relatively few teachers (20%) report feeling well prepared to integrate educational technology into classroom instruction. (U.S Department of Education, National Center for Education statistic, 1999)

Need for education is inevitable even if it isn’t necessary under law. Life is not static, change is the law of nature and every educational organization has to keep pace with changing environment, which is beyond human control. One has to update his knowledge to keep the activities under his direction and suitable guidance. Every educational organization needs to have well teacher and experienced people to perform the activities that have to be done.

Teachers must take responsibility for helping design the staff development process so that it really meets their needs -- so that it includes time to practice using the equipment, to watch teachers’ model lessons that infuse technology into the curriculum, and to mentor other teachers. (Lynne Schrum, 2005)

Teachers are creative, intelligent people, and once they learn to use technology in their professional lives -- for keeping records, for creating documents, and for enhancing their own learning -- they will soon discover the many ways in which technology can enhance what they are doing with their students. (Lynne Schrum, 2005)

Teachers in a liberal arts environment have the broad responsibility of serving as guide and mentor on an intellectual journey, opening and broadening curious minds by exposing them to new thoughts and ideas.

As with anyone involved in education, student or teacher, a personal growth plan should always be included. One never develops socially, intellectually, or academically, without consistently learning new things and striving to further oneself. This can include classes as a part of a continuing education program, receiving regular input from students and consistently attempting to improve their teaching style, or trying new ideas or strategies on regular basis.

Before any teaching activity it should be clear that teaching has been delivered to whom. Thus, it could recognize by knowing teaching programs. As teachers, we often search for new methods of instruction, new skills to implement in the classroom to better meet the needs of our students. Most of us also possess a commitment to lifelong learning, constantly striving to improve our abilities in subject matter, pedagogy, and educational technology. (Bill Robertson, 2000)

The tools enhance and facilitate the learning process. This gives the learner a reason to use the application, and along the way, the learner understands how the application works. Active learning is rarely a clean, neat process. Students engaged in such a process can create busy, noisy, and messy classrooms. It’s important to recognize that this kind of learning takes practice -- for both the teacher and the students.
According to the 2000 U.S. Census, nearly one person in five (or 47 million U.S. residents age 5 and older) spoke a language other than English at home in the year 2000. The continued growth in the number of speakers of languages other than English is reflected in the rapidly increasing number of students in U.S. schools for whom English is a second language and in the growing number of adult English language learners across the country. Thus we can recognize why learning of English has important role in society.

While technology surely receives more exposure in mathematics and science, it has also affected the manner in which we approach the teaching of the English language arts in innumerable ways. Word processing has revolutionized the way we perceive, teach, and implement the writing process, especially in terms of editing, revision, and publishing, and the effects have been positive for students as well (Hawisher, 1989; Hawisher & Selfe, 1991).

Absent from the literature, however, are measured directions for how teachers might develop technology literacy themselves, as well as specific plans for how they might begin to critically assess the potential that technology holds for them in enhancing their English language arts or methods instruction. This article aims to fill this gap by providing practical strategies for English teachers and teacher educators to develop a critical approach toward and pedagogical framework for technology integration, the first step being to recognize the definition of technology. (Michelle Achacoso, 2003).

ILLITERATURE REVIEW

Definition of Technology
Technology is a tool that can change the nature of learning. There is no one accepted definition of what constitutes technology. The term is used very loosely to describe a variety of ways computers are integrated into the learning process. Descriptors for technology used in the classroom include, but are not limited to, the following: technology-mediated learning, computer-aided instruction, distance education, distance learning, educational technology, home learning technologies, computer-based education, instructional technology, multimedia, communications systems, Web-based learning, educational multimedia applications, and computer-mediated communication.

The variability in terminology appears not to be a matter of disagreement among researchers and evaluators. Simply put, technology is a word that is used to describe different things to different people. Technology is a term that is used by many to describe, study, and evaluate the various ways computers are integrated into education, both inside and outside of classrooms. (Michelle Achacoso, 2003)

The reality is that technology is a complex, dynamic, and ever-changing part of our society and world today and, given this, it is important to have an informed approach towards its role within our own sphere of influence. For our purposes, this context is the English language arts classroom, with the crucial understanding that technology and media provide yet another critical layer of complexity to defining what English is and specifying its connection to the larger issue of literacy. (Young, C. A., & Bush, J. 2004).

Miles Myers 1996 broadened this notion beyond computer technology, arguing that a new form of “translation/critical” literacy is emerging, which demands that teachers be skilled in shifting modes of communication and paradigms of discourse. Myers explained that this new literacy will require “an active, meaning-making student” with a flexible, adaptive intelligence.

Instruction is the way we teach. Technology is what we use to help us teach. Instruction can take place with or without technology. However, technology can be used to help facilitate instruction. Technology can be anything that is used as a means to help us, but it does not necessarily have to be electronic. A good definition of technology should include “the systematic application of scientific and other organized knowledge to practical tasks” (Earle, 2002). Technology is designed to make a person’s life easier. Therefore, the definition of instructional technology is using any of a multitude of things to help learning to take place. (Regina Carson, 2005).

Importance of Technology The importance of technology in our everyday and academic lives is increasing. “Technology has become a powerful catalyst in promoting learning, communications, and life skills for economic survival in today’s world” (ISTE 2000: xi). We’re all familiar with the extravagant promises of technology: It will make our students smarter -- and it will do it faster and cheaper than ever before. Moreover, the promise suggests, this miracle will occur almost by osmosis. We need only place a computer in a room, stand back, and watch the magic take place. If only life were that simple and learning that easy!
Technology is a powerful tool with enormous potential for paving high-speed highways from outdated educational systems to systems capable of providing learning opportunities for all, to better serve the needs of 21st century work, communications, learning, and life (Robert M. Terry, 1999).

A study that would fit the above requirements of good instructional technology research would include two groups of students. These groups of students need to include a random sampling of participants. That way, one group is not starting of at a different point than the other. The students then need to be given the same project. One group is to use a certain technology to help them. The control group does not utilize the technology. The results of the project would show whether or not the technology helped learning to take place. (Regina Carson, 2005)

Bialo and sivin kachala have studded on “The Effectiveness of Technology in Schools: A Summary of Recent Research” is an example of this. The study had two different groups. Both were learning a math lesson. One group learned the math in the traditional way. The other group used the assistance of computers. The results of the study were positive. The group that used the technology learned the math, along with more problem solving skills than the other group. (Bialo & Sivin-Kachala, 1996)

First and foremost, educators want students to learn. It is certainly not enough to tell educators that they need to use the boxes and wires that have invaded their schools simply because they are expensive or because students need to know how to use the latest widget. If it’s clear that technological tools will help them achieve that goal, educators will use those tools. Therefore teachers must determine how technology tools are used, and they must have a hand in designing the staff development process that trains them. The divisions of the technology Computer and other information technologies are used in many educational institutions in a number of different ways to aid instruction and learning. Uses of technology for teaching and learning can be divided into technology-assisted learning, tool applications, and computer and information science.

IT-assisted learning: This category includes three different uses of IT to directly support learning. 1) Computer-assisted learning (CAL) is the interaction between a student and a computer system designed to help the student learn. Once limited to drill-and-practice software, CAL now includes tutorials, simulations, and virtual-reality environments that can present complex learning situations. 2) Computer-assisted research is the use of IT as an aid to doing library and empirical research. It has become increasingly important as the growth of the Word Wide Web has created a virtual library that can only be accessed by the technologically literate. 3) Distance learning is the use of telecommunications designed to facilitate student learning. Distance learning has involved various technologies over the years.

The International Society for Technology in Education (ISTE) in USA including telephone and no interactive closed-circuit television. Current technologies include e-mail, interactive web sites, and two-way audio/video teleconferencing. Technology-as-a-tool: This includes a large array of hardware and software-word processors, graphics packages, scanners, digital cameras, presentation applications, databases, spreadsheets, and more. The common characteristic is for hardware and software not to have a limited educational purpose, but rather be designed to help people extend their abilities to do work. Some tools-digital science probes, for instance – are more specialized than others, i.e. word processors.

Computer and information science: Before the personal-computer software industry developed, using a computer meant learning to program it. Today, computer and information science is a specialty area of study for students with particular interest in technology. However, many general purposes IT tools include a level of programming in the form of scripts and macros that automate task. (David Moursund, Talbot Bielefeldt, 1999)

III. THE AIDS OF TEACHING:

In teaching facilities now a days, the aids of teaching play an important role in teaching procedure. The benefits of equipment and aids of teaching can be for better teaching to the trainees as well as students. The aids of teaching should be proportional with teaching materials and methods. Because, if we don’t use appropriate equipment then teaching procedure will be faced with many problems and it may be stop at all. Duties for correct using form should be undertaking of trainer, which he/she must take into consideration them in his/her teaching programs. Therefore he/she must use special facilities and equipment’s correspondent to teaching procedure. Trainer can provide film, video, projector, notes or any other facilities, which can be useful for teaching programs and learning of trainees.
If teaching methods are proportional with equipment then teaching will be easier. Trainers must be aptly rewarded to maintain the quality of trainee and its impact on the trainees. The advantage of teaching facilities and equipment can be:

I. Increase in learning: It is proved according to experience that, however teaching become more touchable and vigorous then the eagerness of trainees will be increased for learning. For example, if trainer uses some equipment (like overhead, particular video, etc.) in lecture method then trainees get interested in listening to the lecture. Also varieties of equipment’s can cause of prevention of trainees fatigue in the teaching procedure.

II. Reduction of time; by using of aids transmission of communication are performed quickly. For example, persons can use from Internet for better and faster communication, or if trainer use transparency, which is provided from previous time in the seminar method, he/she does not need to write on the black or white board.

III. Decrease in costs: The teaching aids have advantages, of them is decrease of costs. When we are saving the time, we reduce the additional costs. When person works with equipment and machines in learning procedure consequently wastage of industrial productions are less, it results in reduction of cost.

IV. Increase of productivity: Just as mentioned in above aids of teaching help to reduction of time and costs, it makes higher productivity among the employees. When they know “How they should use equipment and tools then wastage of time and materials decreased and as a result productivity among persons grow up.

V. Reinforcement of memory and prevention of forgetfulness in trainees: It is stated that whenever teaching become more touchable and to person’s life and work then forgetfulness will be less, consequently memory will be reinforced. Any learning matter should be along with repetition otherwise forgetfulness would be happened little by little. However this matter become theoretical forgetfulness will be increased. According to teachers experience to the students of different age and group they acquired that more theoretical matters are forgotten and practical matters stay permanent in the memory.

Types of Teaching Aids:
Just as I stated about aid of teaching, numbers of teaching facilities and equipment are available. They have especial application in teaching environment, but we can divide them in two groups viz.

I- Non-electronics and Non-mechanical facilities,

II- Electronics and Mechanical facilities

I- Non-electronics and non-mechanical group, which can be included of chalk piece, white/black board, sketch pen, chair and desk, books, notes, paper, poster, etc. The facilities are being used almost in every class. Actually they are primary facilities in every class.

II- Electronic and mechanical equipments: They are complex and they have great capacity for giving information to the large number of people. Some of these equipment’s are like Internet, Fax, Computer, Video, Video conferencing, Television, Xerox, Tape Recorder, various types of Cameras, etc. following is the explanation about some of new facilities which are common in recent two decades.

Fax: It is to send a copy of a document, an illustration, etc. by an electronic system using telephone lines. Fax machine is a system for faxing copies (1). Any organization can have a fax machine for better communication. Fax plays important role in the teaching department. If some matters are necessary for trainees, then they can collect all the matters by fax machine and also send his/her answer by fax. The application of fax in teaching can be for distance between trainees and trainer who want to contact with each other.

Computer: It is an electronic device for storing and analyzing information fed into it, for calculating, or for controlling machinery automatically (2). The aim of invention of computer was to make life simpler. During two pasts decades computers find an essential role in each and every aspect of our lives. One area that has affected by computers extremely is education. Educators of trainers take a great benefit from this device to teach the students or trainees. Man can do very complicated and boring computing in a few seconds with the help of computer. It saves our time. Also there is much educational software with a graphical and user-friendly interface that you can interact with them and learn subjects more effectively. Computer can be like tuition. Now a day’s computer becomes general in any organizations and institutions. The application of computer is growing day by day. And trainees can learn so many things by computer.

Internet: The Internet is the name for a vast worldwide system consisting of people information and computers. It is a set of computers talking over, fiber optics, phone lines, satellite links, and other media. Internet is a place to do research for your, thesis or a business presentation. But it technically is defined “the net work formed by the co-operative inter connection of computing net works”. In fact, the word “Internet was coined from the words”. Inter connection “ and net work”. (Harrah caddy pat, 1996). Any single person, service, corporation, university or government did not found it. Internet has had the greatest part for increasing human access to information than
any machine has invented ever. Internet can connect trainers to trainer in all over the world. They can research and learn. They can find hundreds of articles and information about their interest subjects. The Internet has turned the world into a global village. With advent of the Internet distances and geographic locations are no longer barriers to communication. Now a day some banks in all over the world are using Internet. The bank connects its personnel by Internet. Trainees can receive information by Internet.

E-mail (Electronic mail) : E-mail is the service which many people use for net working. Whether they are on a local LAN (Local Area Network) or on a service connected to the global Internet. It is the most commonly used service on the internet, perhaps because of how convenient. It is easier to send e-mail than paper mail, no stamps no searching for an envelope -just type and send it. It allows us to send a message to another computer with out requiring that the receiving person be “ at home”. Trainer from long distance can send message to the trainees by e-mail in a faster possible time.

Video conferencing: A video conferencing system allows trainer to send live video and sound over the Internet. Through this facility to students, teachers or scientists of two different countries thousands of miles far from each other can consult sent and receive information about their topics of interest.

Learning:

Base of teaching is on the learning. For better teaching, we must know how we can learn. According to this matter we must assist that how human learn and then we can design teaching programs for easy and effective learning. Also, for recognition of learning we must know about theories of learning which are important in learning. There are many theories of learning but four theories are effective for teaching program which are, Behavioral Theory, Social learning, Learning by Observation, Cognitive (gestalt) Theory. But before any explanation about theories of learning we should know a definition of learning.

What is learning? ((A relatively permanent changes in organism behavior due to experience)). Learning all such realms breeds hope. What is learnable, we can potentially teach- a fact that encourages parents, educator's athletic coaches and animal trainers.

What learning has? We can potentially change by new learning. No matter how unhappy, unsuccessful or unloving, we are, that need not be the end of our story. Of all the word creatures, we humans are the most capable of changing our behavior through learning. By definition, experience is key to learning. Conditioning is the process of learning associations. Conditioning is not the only one from of learning. We humans learn in all these ways by learning to associate events (as in classical and operant conditioning) and by observation. Behavioral theory:

Skinner stated that we will understand a particular behavior only after we have learned how to predict and control the behavior. Also, Skinner suggests that the ability to predict and control a behavior depend on understanding the circumstances governing the occurrence of the behavior. According to Behavioral theory experience (trial & error) is base of learning.

Human tries to answer to affirmative situation. The reinforcement behavior is type of conditional behavior, which is occurred due to affirmative situation and person are able to continue to that behavior. According to the behavioral theory, Teaching programs are successful and useful when reduce trial and error in the learning. Therefore, in teaching programs, we must keep in mind that: The teaching program should be divided to small sizes; it means learning should be little by little. In this system of teaching, person is able to give a feedback immediately and also he/she will be able to know about circumstances of his/her progress. This feedback has reinforced role. It means that he can understand what factors are useful, and then he/she will continue those factors, and what factors is barrier for learning then he/she will eliminate them.

Teaching should not be limited sets of abstract ideas but also teaching should be twin with practical examination and experience. He/she must have opportunity to examine of his/her ideas and views. Person must repeat all of his/her skills, which he/she learned. Then his/her skills become habit for him/her.

Social learning:

Social learning theory emphasizes the prominent roles played by vicarious, symbolic and selfregulatory processes in psychological functioning. The extra ordinary capacity of humans to use symbols to represent events, to analyze their conscious, experience, to communicate with others at any distance in time and space, to plan, to create, to imagine and to engage in foresight action. Distinctive feature of social learning theory is the central role it assigns to self-regulatory processes. People are not simply reactors to external influences; they select, organize and transform the stimuli that impinge upon them. According to social learning theory, changes in behavior are related:

a- Is any thing taught important for person?
b- Are persons believed that any matters are learned by him/her useful?
c- Does person believe that he/she is able for performing all of his/her learning?

Then in any design of teaching programs according to social learning, we should observe some important points, which can be included:

i) We should choose a suitable pattern for student and then we can make a situation for him/her which student is evidence for to get reward by pattern due to his/her desired behavior.

ii) We should give self-confidence to the student. Student can find reliance to him/her self when we prepare feedback of his/her progress.

Learning By Observation:

It means learning by observing and imitating the behavior of others. This type of learning can be observed in some teaching methods, which are related to person with near approach like apprenticeship method or video or simulation, etc. The process of observing and imitating a specific behavior is often called modeling. By observing and imitating models we learn all kinds of social behaviors. Models are most effective when their actions and words are consistent. People learn many social behaviors by imitating their models or other models.

This type of learning is called as follows:

1- Observational learning
2- Reinforcement learning
3- Operatiinal conditioning
4- Classical conditioning

Cognitive (gestalt) theory:

Most researchers today believe that cognitive processes can play an important role in learning. The basis of cognitive theory is on the fluent equilibrium law. According to cognitive theory, person can see total of things. For example, when we look a tree for the first time, we can only see a total of branches, leaves and a trunk, then we see type of tree and some other parts like shape of leaves, shape of trunk and etc. According to cognitive theory, learning means “to have encounter with things which were unrecognized till now, learning cancel the equilibrium of people and make a new equilibrium for student. Cognitive theory proposes some principles for better and faster learning in teaching program design.

The principals are:

I. Teaching department must know differences between various groups in the organization like men, women, and young
II. Teaching program design should have attention to the differences of people and try to choose easy and useful method for trainees.
III. The procedure of teaching should be logical and the aim of teaching must be quite clear.
IV. Trainees should know time of teaching period, how must he/she learn, (To earn skills and knowledge), how can they contact with each other etc.
V. The progress in teaching must be regular viz. We must divide all of things to the various parts from simple too difficult.
VI. We should give regular feed back to the trainees, and then he can award from his progress.

Constructing a data base for study

In order to meet the data requirements for such a study, the available empirical literature needs to be categorized and selected according to systematic survey.

The objectives of this study are as follows:

1- To recognize the complexity of technology integration and its status in the field.
2- To use computers to support problem-solving, data collection, information management, communications, presentations, and decision-making. In a sense, to highlight tasks done by educational system and ministry of education in creating jobs as well as guiding the way in another sense for entrepreneurship graduates.
3- To change and improve the culture of teaching and learning, especially in terms of learning environments and teacher/learner roles.

Recommendations

Based on this review of the literature on technology and learning, these recommendations can be stated as follows:

1- Institution should engage in technology planning that focuses not only facilities but on the integration of IT in teaching and learning.

2- Connect the use and study of learning technologies to good, sound pedagogical and cognitive principles.

- Link technological features to instructional variables. We should begin to explore how various features of the technologies available in our classrooms can be linked to how an instructor teaches material.
- Examine how/which technologies can be used to influence the learning process, especially in terms of cognitive processes. There is very little research on this issue.
• Examine motivation and other psychological variables.

3- Second language institutions like Universities & teacher training centers should
• provide teachers a basic foundation in the use of computers and technology, including: operations and concepts, personal use of technology, and the application of technology to instruction;
• Prepare teachers in educational computing and technology literacy, including: social, ethical, and human issues; productivity tools; research; problem solving; and product development;
• Provide professional preparation through instruction in teaching methodologies and hardware/software selection, installation, and maintenance; and
• Prepare teachers in application of telecommunications and networking methods and equipment.

4- The training coordinator should have a feel for what tools and methods are most appreciated by the trainees. This methodology and tools should be used so as to have an effective training program. All the necessary learning tools, books, cassettes, etc. should be provided in a proper manner and time.

5- The interests of trainees in methods and equipment, which might be used in training sessions, must be studied and fully understood by the training departments before their participation in training program.

6- Training should be divided to small models and it should be delivered slowly. So that feedback is immediate and employees feel the progress.

REFERENCES