Implementing Computer-based Information Technology in EFL University Education

By: Dr Abdel Razak Mohamed El-Sagheer, Head of English Language Dept., Faculty of Science & Arts at Al-Miqwah, Al-Baha University

Abstract:
The information era is featured with the explosion of knowledge and quick production of information in a way that makes it very easy to transfer such a mass of knowledge to individuals. Also, the variance in technology-enhanced learning has resulted in lots of new approaches in education in general and university education in particular. In addition, since the term of "information technology" first appeared in 1958, lots of applications and programs have been implemented in the different fields of knowledge. However, the benefit is still less than expected because of the presence of a huge content of learning material and the absence of practical techniques. So, such a problem may be solved by exploring the degree and type of computer-based information technology in university education

This paper explores the implementation of computer-based information technology in EFL university education. It argues that the success of such an implementation depends on the degree of information technology implemented and the type of technology utilized. As a main method of research, the descriptive approach was used in describing the degree and type of computer-based information technology.

There are two research questions used as guidelines to investigate the target topic: the first looks at how far computer-based information technology has been implemented in EFL university education; while the other searches the kind of technology-enhanced learning that can be best utilized in EFL university education.

Discussions revealed that computer-based information technology proved to be effective, engaging, and efficient. Also, both e-mail and mobile phone technologies as two shapes of technology-enhanced learning played an important part in creating facility and acceleration in the process of learning in general. But still, the status-quo of implementing computer-based information technology in university education seems to be unsatisfying due to the paucity of specialized staff and illiteracy of most of university students in interacting with computer-based information technology.
Introduction:
Computer-based information technology has impacted the educational model in general and became part of the system of university education as well. Moreover, there are many changes taking place in higher education for economic, social, and educational reasons. New goals and educational objectives are being set within educational institutions. Above all, "there are particular emphases to produce a more effective delivery of information technology learning methods for university education to the extent that it has been seen as an important issue in the development of an understanding of the complex process of instilling knowledge to higher education students". (El-sagheer, Abdel Razak, 2003, 17) Accordingly, the current paper tends to investigate the degree and type of computer-based information technology in EFL university education by identifying the context of the problem in light of the research questions addressed, building up the theoretical framework, analyzing the discussions got out of the investigation, and finally, submitting the conclusions.

Context of the problem:
Among the main features of this age - namely the “information era” - is the widespread explosion of knowledge and quick production of information in a way that makes it easy to transfer such a bulk of knowledge to individuals. Moreover, the variance in technology has resulted in lots of new approaches in education in general and university education in particular. On the other hand, since the term of "information technology" first appeared in an article published in 1958 in the Harvard Business Review, in which the authors - Leavitt and Whisler - commented that "the new technology does not yet have a single established name; we shall call it information technology". (Oxford English Dictionary, 1989) Since that time, lots of applications and programs have been implemented in the different fields of knowledge. Anyhow, the benefit is still less than expected due to the presence of a huge content and the absence of practical techniques. So, this problem can be solved by exploring the degree and type of computer-based information technology in EFL university education by answering the following two questions:
1) How far has computer-based information technology been implemented in EFL university education?
2) What kind of technology can be best utilized in EFL university education?
The Theoretical Framework:

According to the learning theory of constructivism "learning is an active and constructive process. The learner is an information constructor. Learners actively construct or create their own subjective representations of objective reality. New information is linked to prior knowledge" (Learning Theories, 2008). This means that amidst the explosion of knowledge and requirements of graduation from university, higher education students find themselves unable to fulfill the requirements of graduation. The dramatic consequences of this view are two-fold: we have to focus on the learner in thinking about learning (not on the subject/lesson to be taught) and that there is no knowledge independent of the meaning attributed to experience constructed by the learner, or community of learners.

Kayte O’Neill (2004, 313) suggests that there is an urgent need "to associate the usefulness of technology to enhance the learning experience. This technological path will potentially enhance the learning process, not replace the lecturer or tutor. Increasingly universities must provide quality and flexibility to meet the diverse needs of students". Moreover, regarding the quick response of university education to the global changes, there is an argument that "the nature of learning and teaching in higher education system is an indicator of how adaptable a country is likely to be in response to global change" (The Dearing Report: Ten Years On Conference, 2007, 1). In addition, to facilitate the process of learning, ChanMin Kim (2008, 187) argues that "technology can make learning more effective, efficient, and engaging". Above all, for the sake of models of mind and theories of learning – as two different extremes - it is argued by (Jan Derry, 2008, 505) that "presuppositions involving models of mind and theories of learning underpin attempts to integrate technologies into processes of learning".

Based on the above theoretical excerpts, this paper argues that the success in implementing computer-based information technology in EFL university education depends on two main factors: the degree of information technology implemented and the type of the technology utilized.

The next section explores the beginnings of computer-based information technology as a subordinate learning technique came out of applying the continuum of e-learning in the process of learning.
E-learning and Computer-based Information Technology:

Looking at the relation between e-learning and computer-based information technology, one can realize that there is a strong relation between the two extremes since e-learning is a type of computer and network-enabled transfer of knowledge and skills. Its applications and processes include web-based learning, computer-based learning, virtual classroom opportunities and digital collaboration. Content is delivered via the internet, audio or video tape, satellite TV, and CD-ROM. It can be self-paced or instructor-led and includes media in the form of text, image, animation, streaming video and audio.

The term of "e-learning" is defined by Tavangarian et al. (2004, 5) as "all forms of electronically supported learning and teaching, the information and communication systems, whether networked or not, serve as specific media to implement the learning process". From another point of view, both Bates and Poole (2000, 25) define e-learning as a term that "will still most likely be utilized to reference out-of-classroom and in-classroom educational experiences via technology, even as advances continue in regard to devices and curriculum".

In general, e-learning offers the institutions of higher education all the benefits of a global database. In order to harvest these benefits, universities always develop the programs and implications of high quality in order to meet the needs of university student population. This may ensure the success of e-learning into the future in case of providing higher institutions with a much needed competitive edge. In order to achieve such goals, there should be a kind of discussion to the approaches of e-learning.

The review of scientific research has - in many cases - praised the role of e-learning in the learning process. Kayte O’Neill et al. (2004, 315) see that growth in e-learning is rapid as institutions race to compete for a share of the increased and changing demand for higher education. They see that research suggests that universities failing to embrace technological progress made during the 1990s will be unable to meet the needs of knowledge based societies and as a result will not survive the change in the paradigm of education. However, the implementation of e-learning brings forth implications for all stakeholders in higher education, and poses a number of risks which can not be overlooked.
Moreover, Both Mwanza and Engestrom (2005, 457) see that the use of e-learning environments to support teaching and learning has had great impact on the way content is developed and managed. In most cases, both teachers and students have had to re-adapt the way they prepare, access and engage with educational matter. Above all, both Allen and Seaman (2008, 52) claim that almost a quarter of all students in university education were taking e-learning courses in 2008, and a report by Ambient Insight Research (2009, 51) has pointed out that in 2009, 44 per cent of university students were taking some or all of their courses via e-learning, and projected that this figure would rise to 81 per cent by 2014. Thus it can be seen that e-learning is moving rapidly from the margins to being a predominant form of university education.

By the way, an excellent example of e-learning to be mentioned here is "Navy E-Learning", which is related to knowledge management and available to Active Duty, Retired, or Disable Military members. Such an on-line tool provides certificate courses to enrich the user in various subjects related to military training and civilian skill sets. The e-learning system not only provides learning objectives, but also evaluates the progress of the student and credit that can be earned toward higher learning institutions. This reuse is considered to be an excellent example of knowledge retention in addition to the cyclical process of knowledge transfer and use of data and records. (Navy E-learning, 2010)

To conclude, the impact of e-learning on EFL university education cannot be denied. E-learning has a fundamental impact on the structure of higher education in general and EFL university education in particular. While the growth in demand can be accommodated by its implementation, the diversity of the new student population requires that institutions carefully develop programs that will satisfy a broad range of learning requirements. This challenge is intensified by changes to the competitive environment where, in the wake of lifelong learning, traditional institutions are competing with corporate and virtual universities particularly for the mature university student population. Students are also greatly affected by the implementation of e-learning, principally by the shift in learning styles required to be successful in a computer-based environment. Universities have to be aware that dependent learners will require courses tailored to suit their educational needs, potentially offering a blend of face to face and virtual interaction.
Approaches of E-learning:

The approaches of e-learning have been developed since computers were first used in education. Nowadays, there is a trend to move towards blended learning services, where computer-based activities are integrated with practical or classroom-based situations. As a result, there are many approaches that came as a result of the widespread of e-learning such as computer-based learning, computer-based training, computer-supported collaboration learning, computer-aided assessment, learning management system, learning content management system, and technology-enhanced learning. To remind, this paper is concerned with studying in detail only the techniques of computer-based learning, and technology-enhanced learning.

Computer-based Learning:

Computer-based learning is defined by K12 academics (2004) as “the use of computers as a key component of the educational environment. While this can refer to the use of computers in a classroom, the term more broadly refers to a structured environment in which computers are used for teaching purposes”.

Historically, computer-based learning has been seen as a response to the Audio-Lingual Method which arose as a direct result of the need for foreign language proficiency in listening and speaking skills. It is closely tied to behaviorism, and thus made drilling, repetition, and habit-formation central elements of instruction. Proponents of audio lingual method felt that this emphasis on repetition necessitated a corollary emphasis on accuracy, claiming that continual repetition of errors would lead to the fixed acquisition of incorrect structures and non-standard pronunciation.

In the classroom, lessons were often organized by grammatical structure and presented through short dialogs. Often, students listened repeatedly to recordings of conversations and focused on accurately mimicking the pronunciation and grammatical structures in these dialogs.

Here, critics of audio lingual method asserted that this over-emphasis on repetition and accuracy ultimately did not help students achieve communicative competence in the target language. They looked for new ways to present and organize language instruction, and advocated the notional functional syllabus as the most effective way to teach second and foreign languages.
On the other hand, computer-based learning has been seen as an extension or development of the Notional-Functional Syllabus which is more a way of organizing a language learning curriculum than a method or an approach to teaching. In a notional-functional syllabus, instruction is organized not in terms of grammatical structure as had often been done with the audio lingual method, but in terms of “notions” and “functions.” In this model, a “notion” is a particular context in which people communicate, and a “function” is a specific purpose for a speaker in a given context. As an example, the “notion” or context shopping requires numerous language functions including asking about prices or features of a product and bargaining. Similarly, the notion party would require numerous functions like introductions and greetings and discussing interests and hobbies. Proponents of the notional-functional syllabus claimed that it addressed the deficiencies they found in the audio lingual method by helping students develop their ability to effectively communicate in a variety of real-life contexts.

Computer based learning has been discussed, especially in finding a better way to incorporate computer-based activities in university education. Lately, the use of computers in the classroom proved to be particularly important in the context of teaching and learning English as a foreign/second language. Cassandra Whyte (1989, 85) investigated the ever increasing role that computers would play in university education. This evolution, to include computer-supported collaborative learning, in addition to data management has been realized. The type of computers have changed over the years from cumbersome, slow devices taking up much space in the classroom, home, and office to laptops and handheld devices that are more portable in form and size.

Similarly, both Shemla & Nachmias (2006, 350) aimed to identify, classify and quantify the evolving use of computer-based learning by university students in a traditional university throughout finding out the purposes and extent higher education students integrate computer-based environment in their courses and to see to what extent lecturers realize the pedagogical potential in terms of learning flexibility, representational means, hyperlinks and interaction. The main findings suggest that most lecturers conceived course websites as content providers rather than communication facilitators. They realized only to a limited extent the huge pedagogical potential for flexibility and augmentation of academic instruction.
Above all, Nadzrah Abu Bakar (2007, 461) has investigated how computer-based activities are organized in a university situation that is totally dependent on the syllabus. This study is a case study that incorporates classroom observations, field-notes, interviews and written documents. Both computer-based activities and non computer-based activities in ESL classrooms were recorded and analyzed. The study concludes that the opportunities for students to learn English as a second language using computers are very wide, and the use of L2 can be increased if authentic computer-based activities can be incorporated in the lesson.

It is obviously clear that there are many advantages of computer based learning including the ability to go at the student's own pace, individually, instead of having a classroom where some students are bored while others are bewildered. It can also give more direct and individualized feedback, and correct misconceptions more quickly. Most of them do little pop quizzes throughout the program, and can also give interactive demonstrations. The program is not designed to be impatient, argumentative, or insulting. And the computer does not need a vacation or sick leave, although it may go down at times. Anyhow, there are also some disadvantages such as the difficulty in getting a question answered for the student, if they need clarification of the questions in a quiz, for example. But if the computer learning goes on in an atmosphere that provides access to a trouble-shooting human teacher, that can be overcome. Also, not all subjects are standardized enough for the formal structure of the program.

To conclude, the 1980's and 1990's produced a variety of technological schools that can be put under the umbrella of the label "computer-based Learning". Frequently based on constructivist and cognitive learning theories, these environments focused on teaching both abstract and domain-specific problem solving. Preferred technologies included:

1- micro-worlds where learners could explore and build,
2- Simulations where learners can play with parameters of dynamic systems, and
3- Hypertext as an underlying concept to share information.

So far, the approaches of e-learning have been discussed; the next section describes computer-based information technology as a new learning technique which has been implemented throughout the different fields of knowledge in general and in university education in particular.
Computer-based Information Technology:

Computer-based information technology is one of the features of the information era due to its important and varied roles particularly in university education. In higher education there is a growing awareness of the need to develop teaching approaches to facilitate student learning. It is estimated that by 2006, 3.5 million students were participating in computer-based learning at institutions of higher education in the United States (Allen and Seaman, 2003, 41). Accordingly, there has been an increase of around 12–14 per cent per year on average in enrollments in higher education system, compared with an average of approximately 2 per cent increase per year in enrollments overall. Moreover, many higher education institutions, now offer on-line classes.

By contrast, only about half of private institutions offer them. The Sloan report, based on a poll of academic leaders, indicated that students generally appear to be at least as satisfied with their on-line classes as they are with traditional ones. Private institutions may become more involved with on-line presentations as the cost of instituting such a system decreases (Allen and Seaman, 2008).

Computer-based information technology has been investigated by many scholars working in many different fields of knowledge. For example, it has been studied by Yahya Al-Hadj (2010) as a way that can help in teaching the Holy Quran. Also, McKinney (1996) investigated the topic in a way of discussed some of the benefits gained from implementing technology in community colleges, such as increased instructor creativity, increased student interest and learning, and greater flexibility of instructional delivery.

In Serbia, Snežana Simić (1994, 207) analyzed the diffusion of computer-based information technology into health care institutions in order to determine the state and progress of its development.

To summarize, out of the above descriptive data, it seems that the degree of implementing computer-based information technology is unsatisfactory. This may be a result of the negative attitudes still found inside the minds of higher education students rather than the absence of estimating the content and appropriate learning technologies utilized on the level of university education. The ext section describes the technology-enhanced learning as an approach used recently in the field of learning and teaching throughout university education.
Technology-enhanced Learning:

The existing definitions for technology enhanced learning spread very broad and change continuously due to the dynamic nature of this evolving research field. According to Wikipedia (2010) "technology enhanced learning has the goal of "providing socio-technical innovations (also improving efficiency and cost effectiveness) for learning practices, regarding individuals and organizations, independent of time, place and pace. The field of technology enhanced learning therefore describes the support of any learning activity through technology".

Technology-enhanced learning seeks to improve the student learning experience by aiding student engagement, satisfaction and retention; helping to produce enterprising graduates with the skills required to compete in the global business environment; encouraging inspirational and innovative teaching; and by personalizing learning that promotes reflection. In Britain, the government’s focus on technology-enhanced learning has greatly increased in recent years with a vision to become a world leader in higher education e-learning within the next 10 years. (Technology-enhanced Learning, 2011)

Technology has been shown to have positive effects on the instructional process, on basic and advanced skills. Technology is also changing the instructional process itself. To be effective, technology cannot exist in a vacuum, but must become part of the whole educational environment. New measures of evaluation are under development which would help to better define the role of technology in its wider context.

Bialo and Sivin-Kachala (1996, 191), report other benefits enjoyed by students who use technology. These benefits involve attitudes toward self and toward learning. Studies reveal that students feel more successful are more motivated to learn and have increased self confidence and self esteem when using computer assisted learning.

McLean (1996, 15) studied the technology-enhanced learning impacts of education, recreation, and educators in the areas of research, classroom teaching, and university education. Also, Rosman Ahmad and his colleagues (2006, 107) surveyed the use of a technology-enhanced learning course in Manchester University. There were three sections in the survey: the first section focused on students’ satisfaction; the second one on the established skills that were developed; and the third one was a measurement of opinions after completing each mode.
The E-mail Technology:

E-mail has been used in a variety of instructional contexts. Obvious benefits of using e-mail technology include efficiency, convenience, and cost as it is one of the popular means of communication medium nowadays. In fact, e-mail is widely used in everyday life as well as in teaching and learning contexts, for example, online classes, face-to-face classrooms, and in hybrid learning environments.

The use of e-mail throughout the process of learning cannot be denied. Up to the knowledge of the researcher, there are few studies that tackled the topic of e-mail use regarding the aspects of learning. Such studies have addressed the use of e-mail for specific academic purposes, such as mentoring, collaboration, counseling, and supervision. Below, the most recent studies have been investigated.

Harris and Jones (1999, 36) researched e-mentoring during a 15-week period in an academic enrichment program on research topics of special interest in a high school where face-to-face mentoring was impractical. They reported on the flow and functions of the messages between teachers and subject matter. The study found out that a prominent benefit from the messages was fostering more social exchanges than face-to-face interactions typically allow. On the other hand, De Montes and Gonzales (2000, 351) investigated the effectiveness of e-mail in an online course of professional development for K-12 teachers. They found that e-mail allowed the instructor to maintain close relationships with learners and provide ongoing support.

Poole (2000, 13) investigated the use of e-mail to help reduce the levels of pre-service teachers’ anxiety about teaching mathematics and develop their teaching strategies through conversations on problem-solving activities with elementary school students. His study was based on the assumption that novice teachers with little background knowledge tend to use behaviorist pedagogy. Poole found out that e-mail could be an effective tool for the novice teachers to improve their teaching skills through the acquisition of authentic experiences and social interactions with the students, which were grounded in a constructivist viewpoint.

Cascio and Gasker (2001, 283) studied the effectiveness of mentoring in a social work program. The study showed that the undergraduates changed, to being able to identify personal values in social work. The study concluded that mentoring was a process of
finding and satisfying ‘mutual needs and desires’ and the semester-long interactions successfully facilitated the process. Likewise, Cifuentes and Shih (2001, 457) conducted an e-mentoring project between American pre-service teachers and Taiwanese students of English. The project, based on social constructivist foundations, focused on pre-service teachers’ facilitative role, students’ authentic experiences of English writing, and collaborative learning about culture. They found that the correspondences allowed individualized instruction leading to students’ improvement of English, communication skills, and cultural understandings.

Alexander et al. (2002, 110) analyzed educators’ messages, they found only half of the messages contained course-related information and most were used only for coursework assignments instead of for more purposeful academic communications (e.g., encouragement of collaborative work, discussion of individual performance). They indicated that there should be more studies to identify teaching strategies in order to harness the potential advantages of e-mail for learning and instruction. Next, Brown and Dexter (2002, 63) utilized an e-mentoring program for teachers to help improve writing skills through conversations. They found out that students’ interpersonal skills were improved in addition to their writing skills. After that, Lawrence (2002, 472) found that e-mail could be an effective teaching tool in learning foreign languages because interactions with native speakers via e-mail maximized authentic, interpersonal, and learner-centered context with comfort. Moreover, Overbaugh (2002, 138) analyzed the patterns of conversations on an electronic mailing list in a teacher education course on instructional technology. He reported that electronic mailing lists were an efficient way to communicate with and among groups. He also argued that e-mail communication can improve ‘reflective and critical thinking’ because of more time for reflection and permanence of the written words. Interestingly, he reported levels of cognitive engagement from his analysis of individual student e-mail messages. In addition, Van Der Meij & Boersma (2002, 199) utilized e-mail for elementary school students collaborating on a project. They found that e-mail stimulated reflection on the assigned tasks probably as a result of a time lag between receiving a message and developing and sending a response.
Boxie (2004, 127) introduced an e-mentoring writing project between high school students and pre-service teachers. The pre-service teachers were trained in advance to provide strategic student feedback through social acknowledgement, cognitive task structuring, explanations, and elaborations, fostering reflections. The students became enthusiastic about schoolwork, showed better attendance, planned about colleges, in addition to appreciating the quality of writing. Likewise, Clingerman and Bernard (2004, 95) conducted a study using e-mail as a supplemental method of supervision in a college counseling practicum course. They analyzed students’ weekly e-mail messages to instructors. The e-mail messages were found to have and retain a personalization focus, often reporting personal experiences and feelings with regard to the counseling practicum. The researchers concluded that e-mail encouraged intimacy between instructors and students, which was a result of ‘a sense of psychological safety’. Also, they reported e-mail increased the students’ thoughtfulness, interest in the class, awareness of others’ attitudes, and active participation in the course. Similarly, Grünberg and Armellini (2004, 606) examined the potential of e-mail for the exchange of professional resources and information and for the formation of collegiality. They found that e-mail was used more for sharing information than for requesting it and private exchanges were more frequent than public ones.

Davenport (2006, 19) investigated a university teaching staff partnered with undergraduate students to communicate to writing projects. Her study showed increased development of students’ writing skills as well as their motivation, self-esteem, enthusiasm, and self-confidence. Moreover, Cook-Sather and Mawr (2007, 37) utilized e-mail to give a chance for pre-service teachers to experience pedagogical practices through communications with teachers and high school students. The participants were required to exchange e-mail messages weekly. They concluded that such e-mail interactions had the potential to narrow the gaps between the knowledge and skills learned from college and actual teaching contexts, in a convenient way that was achieved without class observations and visits.

Finally, Rezanur Rahman and his colleagues (2008, 183) investigated the possibility of enhancing university education through e-mail communication. Based on analysis and interpretation, the findings of the study included that the term ‘e-mail and Internet’ was
familiar to learners, e-mail and Internet are effective for interaction and enhancing distance learning, about 94 percent of students thought that e-mail supports learners and instructors, and that about 82 percent of them showed eagerness to communicate with teachers by e-mail. At last, ChanMin Kim (2008, 198) supposed that the e-mail technology supporting both cognitive and non-cognitive aspects can make learning more effective, efficient, and engaging. In order to optimize the use of e-mail for the support of effective learning, the researcher has proposed a conceptual framework grounded in research that can guide the systematic design and development process in terms of diagnosing learners’ needs, constructing appropriate e-mail, and renewing e-mail.

In summary, researchers have described the following advantages of e-mail use along with contributions to academic achievement:

1) Enabling immediate, frequent support for individual needs; learner-centered context; individualized instruction; exchange of resources and information (Cascio & Gasker, 2001; Cifuentes & Shih, 2001; Cook-Sather & Mawr, 2007; Davenport, 2006; Grünberg & Armellini, 2004).

2) Fostering psychological comfort; intimacy; expression of personal ideas, opinions, and emotions; informal conversations; social content exchanges; interpersonal context (Clingerman & Bernard, 2004; Davenport, 2006; Harris & Jones, 1999; Poole, 2000).

3) Building interpersonal skills; collegiality; awareness of others’ attitudes; insights into others’ perspectives; close relationship (Brown & Dexter, 2002; Clingerman & Bernard, 2004; Cook-Sather & Mawr, 2007; De Montes & Gonzales, 2000; Grünberg & Armellini, 2004; Overbaugh, 2002).

4) Developing thoughtfulness; cognitive task structuring; careful analysis; critical thinking; reflection; planning (Boxie, 2004; Cook-Sather & Mawr, 2007; Overbaugh, 2002; Van Der Meij & Boersma, 2002).

5) Encouraging interest; enthusiasm; motivation; self-esteem; self-confidence; change in personal values; active participation (Boxie, 2004; Cascio & Gasker, 2001; Clingerman & Bernard, 2004; Davenport, 2006; Overbaugh, 2002).

6) Permitting authentic but convenient context; gap reduction between knowledge and practice; real-world anxiety decrease (Cook-Sather & Mawr, 2007; Davenport, 2006; Poole, 2000)
The Mobile Phone Technology:

As a new technology, mobile phones played an important part in the lives of people in general and in the educational careers of students in particular due to the wide spread of these technology-enhanced devices. Moreover, a new shape of learning came to the surface under the term of "mobile learning" or m-learning. A definition of "mobile learning" has been adopted by Keegan (2005, 18) outlines mobile learning as "the provision of education and training on mobile phones". Rismark et. al. (2007, 3) focused on how mobile phones can complement and add value to the educational challenge of encouraging university students to obtain some topic knowledge prior to their lectures. All in all, the participants were excited about the new learning opportunities in the course and the findings suggest that the use of videos and mobile phones contributes positively to student learning activities. In addition, Beverley Grane (2009, 33) has broadened the term under the umbrella of "mobile assisted language learning" and defined it as a term used "to describe using handheld computers or cell phones to assist in language learning. Some educators feel, however, that schools have not caught up with the social networking trends. Few other traditional educators promote social networking unless they are communicating with their own colleagues".

The relation between mobile phones and university education can be obviously seen throughout the mutual functioning. The functions of mobile phones in EFL university education can hardly be counted. According to Rismark (2007, 5) among the varied uses of mobile phones in higher education is the use of mobile phones to get an outline of the upcoming lecture where students used the mobile phone to view the videos ahead of lectures without further preparation. Mobile phones worked as a preparation tool for the purpose to familiarize themselves with the topic without using other study material. The students would often claim that lack of time was a factor in the cases where they used their mobile phones in this way. They could view the video over breakfast, on the bus or during breaks between classes. Also, they are used for more extensive preparations prior to lectures when students used the mobile phones to do more extensive preparations prior to lectures. One main impression is that when the students were doing their preparation activities, they spent time on this work. They used a plethora of learning aids and information sources.
The textbook, other books, the Internet, dictionaries and other reference works were used to prepare for the lectures. This was precisely the type of student activity the professor wished to facilitate with the video. The students stated that they complied with the professor's instructions on the video. When they were performing preparation activities they also used the Internet or other sources of information.

In terms of creating the positive motivation within university students and finding the suitable environment of learning, Quinn (2001, 2) points out that mobile phones make students always on the move, always in a position to interact with fellow students, teachers, subject matter and various technologies. In this way mobile phone learning combines individualized learning with anytime and anywhere learning. On the other hand, Rismark (2007, 7) sees that students can use mobile phones for three purposes during preparations. This touches upon the role of teaching and learning in higher education for web-based learning environments by enabling management, delivery, and tracking of learning.

**Discussion and Considerations:**

The following salient points may be considered among the main considerations:

1- The implementation of computer-based information technology as well as the use of technology does not mean replacing learner process, but enhancement and extension of both of them;

2- Regarding the implementation of computer based information technology, it is evident that there is a number of areas which have to receive much attention. These areas are related to both learner’s and teacher’s perceptions of technology, including their attitudes and motivations, impact of computer technologies on learning outcomes, impact of computer technologies on the learning environment of classrooms, including the learning activities which take place in the classroom and the teaching and learning strategies used to facilitate them;

3- There is a good relation between computer-based learning and information technology since the latter deals with the use of electronic computers and computer software to convert, store, protect, process, transmit, and retrieve information;

4- By computer-based information technology, university institutions can help students to achieve success by a face-to-face session familiarizing students with the courseware; by
the functionality of the technological infrastructure ensured before the course is implemented; and by human resources committed to the project at an early stage and lecturers selected based on their attitude towards technology, teaching style and ability to enhance technology throughout the process of learning;

5- There is a needs to investigate how the introduction of computer-based technologies is changing the learning environments of classrooms and how these changes are impacting students from different cultural backgrounds;

6- The critical factors for success of e-learning approach may change with the implementation of e-learning programs due to the prior experience of using technology, technological infrastructure and equipment, and university students and / or lecturers that will be the new key elements in the success of the learning experience; and

7- There is a need to acknowledge that active learning within a technologically based environment necessitates the establishment of a theoretical framework as part of the learning process.

**Conclusion:**

So far, the topic of implementing computer-based information technology in EFL university education has been investigated. The focus was on exploring the shapes of e-learning and its subordinate approaches including computer-based learning and technology-enhanced learning. The degree of computer-based information technology was sought throughout reviewing the related literature while the two main types of technology discussed were the email technology that has been implemented on a wide scale in university education during the past ten years; and the mobile phone technology came out with the revolution of communications which is obviously clear nowadays. In general, the implementation of computer-based information technology in higher education in general and in EFL university education in particular has created a sort of dissatisfaction to most of those who are concerned with target topic due to the shortage in the teaching staff at the university, the absence of technology-enhanced knowledge regarding the use of software applications from the side of university students, and the illiteracy of higher education students in terms of managing the technology of computer-based information.
**Recommendations:**

Based on the current investigation of implementing computer-based information technology in EFL university educations, these recommendations can be cited:

1- Utilizing technology- enhanced learning and related issues such as the access of professional development activities to support lecturers, the factors that influence the integration of computer based technology in the classroom; and the impact of computer technologies on university student should be among the priorities of university education; 

2- Research suggested that students who have prior knowledge learn more effectively than unprepared students; so, it is highly recommended to help university students be exposed to acquiring enough prior knowledge in terms of computer-based information technology so that can learn more effectively than unprepared students;

3- It has found out that students’ prior knowledge about technology-enhanced learning is found to contribute to their comprehension. Thus, it is better to hold some orientation classes about the different kinds of technology implemented in education so that students are able to choose the appropriate type of technology;

4- Something must be done in those areas which have not received a lot of attention in the context of computer-based information technology in EFL university education;

5- Some attention should be paid to the ever increasing role that computers would play in higher education particularly computer-supported collaborative learning in addition to data management; and finally

6- These websites are recommended for EFL university education resources:


   b) Discovery Education Lesson Plans. [http://school.discoveryeducation.com](http://school.discoveryeducation.com)

   c) Internet4Classrooms. [http://www.internet4classrooms.com](http://www.internet4classrooms.com)


   f) Scholastic. [http://www2.scholastic.com/browse/lessonplans.jsp](http://www2.scholastic.com/browse/lessonplans.jsp)

   g) Teachade.com [http://www.teachade.com/home.do](http://www.teachade.com/home.do)

   h) TeacherTube. [http://teachertube.com/](http://teachertube.com/)


References:


Ahmad, Rosman et al. (2006) The Use of WebCT in Distance Learning Course in University of Manchester. Turkish Online Journal of Distance Education, Vol. 7, No. 2, Article: 9, pp. 101-108


El-sagheer, Abdel Razak Mohamed (2003), the Role of Information Technology in the Field of Computer/Media assisted language learning. Paper presented at SITS2, 5-7 March 2003, Al-Madinah Technical College, Saudi Arabia


Kim, ChanMin (2008) Using e-mail to enable e3 (effective, efficient, and engaging) learning. Distance Education, Vol. 29, No. 2, PP. 187–198


Dr Abdel Razak Mohamed Ahmed El-Sagheer, Head of English Language Dept., Faculty of Science & Arts at Al-Miqwah, Al-Baha University. Mobile: 0555849156 email: aalsagheer@gmail.com