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# The Importance of Incorporating Educational Technology in Teaching English to Iraqi Learners at the University Level

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## Abstract

Educational technology directly affects every aspect of university environment. Nowadays, most universities take forward steps in adopting technology in their programmes and services. This study focuses on the role the teachers play in adopting Information and Communication Technology (henceforth; ICT) in their teaching programmes and the effects that ICT has in enhancing the quality of education at the university level. This study examines teachers' views about technology and its impact on education. It starts with a general introduction about Educational Technology in general and then it reflects teachers' role in this respect. The study shows the way that educational technology is adopted and its significance in education at the university level. Finally, the study ends with the results and conclusions. Among the most important conclusions of the present study are the following: Most teachers get a benefit from the educational technology facilities and programmes available to them. Moreover, using a Web-based environment in their teaching, teachers can develop their ways and strategies of teaching rapidly. Furthermore, the continuous learning plays a significant role in developing the university staff members as well and in urging them to use ICT in their academic career.

**Keywords:** educational technology, ICT, instructional technology, innovation, pedagogical understanding

## أهمية تضمين تكنولوجيا التعليم في تدريس اللغة الانجليزية للمتعلمين العراقيين في

### المستوى الجامعي

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## مستخلص

تؤثر التكنولوجيا التعليمية بشكل مباشر على كل جانب من جوانب البيئة الجامعية. في الوقت الحاضر ، تتخذ معظم الجامعات خطوات فاعلة في تبني التكنولوجيا في برامجها وخدماتها التعليمية. تركز هذه الدراسة على الدور الذي يلعبه المدرسون في اعتماد تكنولوجيا المعلومات والاتصالات في برامجهم التعليمية وتأثير تكنولوجيا المعلومات والاتصالات في تعزيز جودة التعليم على المستوى الجامعي. تبدأ الدراسة بمقدمة عامة عن تكنولوجيا التعليم ومن ثم تعكس دور المدرسين في هذا المجال. تُظهر الدراسة الطريقة التي يتم بها تبني التكنولوجيا التعليمية وأهميتها في التعليم على المستوى الجامعي. وأخيراً ، تنتهي الدراسة بالنتائج والاستنتاجات ومن بين اهم الاستنتاجات: حصول معظم المدرسين على الفائدة من مرافق وبرامج التكنولوجيا التعليمية المتاحة لهم. علاوة على ذلك ، وباستخدام بيئة مبنية على الويب في تعليمهم ، يمكن للمدرسين تطوير طرق واستراتيجيات تدريسهم بسرعة. يلعب التعلم المستمر كذلك دوراً هاماً في تطوير تدريسيي الجامعة وفي حثهم على استخدام تكنولوجيا المعلومات والاتصالات في حياتهم المهنية الأكاديمية. الكلمات المفتاحية: تكنولوجيا التعليم ، تكنولوجيا المعلومات والاتصالات ، التكنولوجيا التوجيهية ، الابتكار ، الفهم التربوي



## **1.1 Introduction**

Having knowledge about ICT is one of the essential factors that everybody should acknowledge. Grimus (2007:86) states that ICT “is increasingly important in every aspect of life (learning, work, health and leisure). It is necessary to become competent in ICT for everybody, which means acquiring the necessary skills during education.” Mikre (2011: 1) thinks that “because ICTs provide both students and teachers with more opportunities in adapting learning and teaching to individual needs, society is forcing schools aptly to respond to this technical innovation.”

Goggin et al (1997:280) mention that “the educational technology era has arrived and with it, major changes in both education and technology.” Technology is developing rapidly and it affects the way we live and work. It also affects organizations, institutions and efficient personal and organizational actions. Smeets and Mooij, as cited in (Kaino, 2004: 2), mention that “studies have shown that ICT can contribute to innovative student-centered learning environment where teachers act as coaches, while remaining in firm control of the learning environment.” They add that ICT programmes enable students to control their own learning process. ICT programmes provide students with interest and motivation. On the other hand these programmes can develop students’ way of thinking. Barczyk et al (2012:99) state that “universities are being challenged to change as technological innovation alters the way students and faculty members think about information and knowledge.” These challenges become of great importance whenever new generations of students join universities. Nowadays, students come with different needs and expectations. University faculties should express their continuous readiness to accept and involve technological issues and facilities in their educational programmes since technology continues to develop. Goggin et al (1997:280) add that “many state higher education coordinating boards have suggested or mandated guidelines for using instructional technology in course delivery.” They provide access to electronic libraries, using computers inside classrooms, distance learning, incorporating education technology planning in their systems, and encouraging teachers and students to use technology in teaching learning processes. Ranaut (2016:16) states that:

Education and training have moved from traditional classroom teaching to a virtual environment with the wake of new technology. This technological revolution has changed the way instruction is designed and delivered. This global technological advancement requires instructional designers to follow a systematic process for planning, organizing, and developing the learning process.

## **1.2 Educational Technology and Instructional Design**

Ranaut (2016:16) states that Instructional Design and Technology is growing rapidly. She (2016:19) adds that many responsibilities are assigned to the instructional designers. They are responsible for “creating the educational content



and material get in touch with subject matter experts, meet the standards set for the course design; serve on curriculum committees; review and revise curriculum content; and collaborate with technology departments, administrators, teachers, students, principals, deans, and more.” Educational technology is often associated with instructional theory and learning theory. Instructional technology is “the theory and practice of design, development, utilization, management, and evaluation of processes and resources for learning.” Educational technology involves various tools and programmes; software, hardware, and many Internet applications. Natow et al (2017:10) state that “Instructional technology, with regard to developmental education, refers to software and other technologies that provide the instructional content of the course— be it reading, writing, or mathematics— to students.” It is highly related to the word “technology” which includes the use of materials and objects by humanity, such as using machines or hardware. However, it can also involve other items like “systems, methods of organization, and techniques. Some modern tools include but are not limited to overhead projectors, laptop computers, and calculators.” (Wikipedia). Goggin et al (1997:281) state that “administrators and faculty believe that computers and instructional technologies have positively impacted the quality of teaching and research. Students indicate that the availability of electronic information has been helpful in their work” (See also Twigg, 2003; Zachry & Schneider, 2010).

Roblyer and Doering (2013:6) believe that “though a ‘technology’ can be anything from a pencil to a virtual environment, the modern history of education has been shaped in large part by developments in digital technologies, such as computers.” The field of educational technology is relatively young. The interest in this field has started in the 1980s with the use of computers in certain institutions. During the last 20 years, the field of educational technology has developed considerably. This is, of course, represented by the emergence of different models, theories and frameworks (See McKenzie, Elizabeth & Nancy, 1996; Rogers, 1983; Schmidt, 1988; Surry, Robinson & Marcinkiewics, 2001). Therefore, the application of ICT has a great impact on teaching and learning in education. Natow et al (2017:1) state that “as institutions of higher education look for innovative and more effective ways to deliver course content and to connect more broadly with students, campus decision makers are increasingly turning to a variety of technology-based options.” These options include a wide range of tools like using computer labs, software-based programmes, mobile phones, online course and the like (See Akbulut (2010); Bell & Federman, 2013; Epper & Baker, 2009; Jacobson, 2006).

Barczyk & et al (2012:100) mention that “a number of technologies are presently used in university classrooms. They include classroom computers, wikis and blogs, class websites, online media such as YouTube, digital games, and mobile devices such as clickers or smart phones.” Moreover, there exist many other tools that could be used, like: digital cameras, video cameras, document cameras,



and interactive (smart) whiteboards or LCD projectors.

Consequently, the emergence of new digital technology in most world societies makes education face very great challenges from traditional ways of instructions and learning to the new advanced ones. Zhu (2010:73) adds that “it also raises a great demand for the transformation of teachers’ roles from the traditional knowledge transmitter to a new set of roles such as facilitator and delegator.” This considerable revolution in teachers’ roles requires them to face the new challenges and be ready and prepared to act accordingly. In this respect, teachers need to upgrade their skills, knowledge, and ICT competence to cope with the integration of educational technology into the curriculum. Alam (2010: 100) states that “the effective integration of ICTs into the educational system is a complex, multifaceted process that involves not just technology indeed, given enough initial capital, getting the technology is the easiest part – but also curriculum and pedagogy, institutional readiness, teacher competencies, and long-term financing, among others.”

### **1.3 Teachers’ Roles**

The fundamental changes in educational technology have considerably changed the roles of teachers and the shape of the classrooms as well. Teachers represent the cornerstone in the education process; therefore, their roles are highly affected by whatever needs and changes they reflect in the classrooms. Volman (2005:19) states that “the teacher will become a supervisor of learning processes rather than a conveyor of knowledge but will also fulfill a broader range of roles. Tasks will become more varied and include instructing, coaching, training, advising and testing.”

Grasha (as cited in Zhu, 2010: 74) indicates that teachers’ roles can be described as: “expert, formal authority, personal model, facilitator and delegator.” He (2010:74) gives the following examples to describe these different roles:

- Expert: “Facts, concepts, and principles are the most important things that students can acquire.”
- Formal authority: “I set high standards in this class.”
- Personal model: “What I say and do models appropriate ways for students to think about content issues.”
- Facilitator: “Small group discussions are employed to help students develop their ability to think critically.”
- Delegator: “Students in this course engage in self-initiated, self-directed learning experiences.”

Teachers should not abandon their traditional roles but they should proceed to get new roles. McGhee and Kozma (2003:3) state that “although teachers retained many of their traditional roles (e.g. class leader or director, lecturer, discussion leader), they negotiated multiple new roles in classrooms that utilized innovative technology-supported practices.”

Volman (2005: 22) believes that nowadays teachers’ role becomes more





complicated than before. They must know the available programmes that can help their students and suit their needs. She (2005:22) adds that teachers are considered to be “the ‘arrangers’ of students’ learning processes: they bring together the educational tools and set them up in a particular way. In addition, they fulfill the role of instructor, trainer, coach, advisor, consultant and assessor.”

Volman (2005:19) states that to upgrade teachers’ role in classrooms, it becomes necessary that “teachers have basic ICT skills. Much attention still needs to be paid to developing skills in the use of ICT in the classroom in the near future”. Moreover, Sawyer (2008:8-9) adds that “teachers should be highly trained professionals, comfortable with technology, with a deep pedagogical understanding of the subject matter, able to respond in an improvised manner to the uniquely emerging flow of each classroom.”

#### **1.4 The Adoption of Educational Technology**

The integration of technology in education is a very complex matter. Kortecamp and Croninger (1996), as cited in ÇELİK,2011:149, suggest “a technology integration model consisted of five interrelated components which are familiarization with hardware and software, partnering with mentors, developing personal projects, becoming mentors, and keeping current.” However, it is considered as an essential factor that can improve teaching practices in education. Ghavifekr and Rosdy (2015:175) state that “integration of Information, Communication, and Technology (ICT) in education refers to the use of computer based communication that incorporates into daily classroom instructional process. In conjunction with preparing students for the current digital era, teachers are seen as the key players in using ICT in their daily classrooms.” Since a teacher is considered as the essential factor in teaching, heavy reliance is placed on him in adopting the effective role to play inside the classroom. Zhu (2010:75) states that past studies focused on “both internal and external factors influence teacher’s adoption of technology in classrooms” and that recent research has attracted the attention to the perception of teachers’ roles. He (2010: 75) adds that “previous studies have pointed out that in order to give full play to educational technology, it is expected that teachers need to adapt their roles and provide more support, guidance and scaffolding to students.” To McGhee and Kozma (2010:1) technology plays a significant role in “providing students with tools and information that support their problem solving, communication, collaboration, and knowledge creation. It also provides teachers with new tools that can transform instructional roles, curricula, and practices.” Teachers should be aware of selecting, evaluating, and using the suitable technology that can help their students engage in the learning process. ÇELİK (2011:146) states that although there are different models adopted in integrating technology into teacher education programmes “there is no single, unified, universally accepted theory of adoption and diffusion of technology.” (See Davis, 1989; Grantson, 2004; Koehler & Mishra, 2006; Kortecamp & Croninger, 1996). ÇELİK (2011:146) adds that Surry and Farquhar (1997) classify these



theories into “general diffusion theories, which are applicable to a wide range of organizations and instructional technology diffusion theories, which are specific to innovations in instructional settings.” In general, Courville (2011:8) believes that “technology will continue to have an impact, in terms of both how we train our teachers and how those teachers instruct their students. Specifically, technology can remove physical barriers to learning, such as geographic proximity and financial costs, through technology that facilitates distance learning.”

### **1.5 The Study Objectives**

This study examines teachers’ views about technology and its impact on education. It focuses on teachers’ roles with respect to technological innovations incorporated in the Ministry of Higher Education and Scientific Research policy. It also focuses on the availability of educational technology programmes and facilities at the university level and how this affects the teaching staff in their methods of teaching and how it enhances the quality of their teaching.

### **1.6 Methodology**

#### **A. Participants**

The teaching staff of the Department of English/ College of Education for Human Sciences/ University of Basrah have participated in this study. Twenty teachers expressed the way they perceive the university environment with respect to the availability and importance of educational technology programmes, particularly ICT, and the effect ICT has on their teaching.

#### **B. Questionnaire**

The questionnaire contains 10 items related to the participants’ view about educational technology and the roles it plays in this respect. Some of these items are concerned with the Ministry of Higher Education and Scientific Research (henceforth, MOHESR) policy while others are related to the role continuing learning plays in developing the university workforce. Some items concentrate on the significance of adopting educational technologies for the students.

#### **C. Procedure**

The questionnaire was distributed to the participants (university teachers) who are instructed to respond and point out paper-based items. The questionnaire consists of 10 items directed to participants regarding the importance of adopting educational technology, especially ICT, in teaching English to Iraqi students at the level of the university. Each item of the questionnaire is measured according to the following variables: Always, Frequently, Sometimes, Rarely, and Never, respectively.

### **1.7 Discussion of Results**

The results show that educational technology is sometimes used by teachers in the Department of English/ College of Education for Humanities/ University of Basrah. The use of ICT is represented by 10% for the continuous use of ICT and



10% for the frequent use of ICT while it is sometimes used 40% and rarely used 40% by the participants. The policy followed in the university is highly related to and influenced by the policy followed by the MOHESR; 45 % agree that their institution is highly influenced by the policy of the MOHESR while 3 participants 15% state that it is sometimes influenced by this policy and 2 other participants 10% state that it is rarely influenced while 2 participants 10% believe it has never been influenced by such a policy. This reflects the fact that there is no real tendency towards using ICT at the level of University or that there is a mature attempt to use educational technology at the university level. The results also show that web- based environment is sometimes 40% and rarely 30% used by participants. Moreover, 3 participants 15% have never used web based environment in their teaching while only 4 participants 40% show their continuous use of such a technology. This means that such a technology is available for teachers, but they do not have the intention to use it or that they are not competent enough to use this technology. In addition, students are highly influenced by the advances made in the world. There seems to be a high tendency to involve students in using ICT. Four participants 20% mention that there is a continuous and frequent 40% demand from students asking for more flexibility in time to be involved in such a learning process. According to the results shown in the table given below, the continuous learning in the University of Basrah/College of Education for Human Sciences sometimes 45% and rarely 45% involve ICT programmes in developing the persons of the workforce of the university. This of course undermines the effective role played by the continuous learning in the university and how it should be the cornerstone in spreading educational technology impacts on both teaching and learning. Since there is a very limited number of international students at the University of Basrah, it seems that there exists no real demands to include international students in the policy of Higher Education and Scientific Research at the level of the University of Basrah to involve them in its ICT policy. Regarding communication between teachers and students, 9 participants 45% believe that this can sometimes help make teachers- students' relationship communicative. Other participants 10% state that this rarely supports the relationship between teachers and their students. This is consequently due to the lack of using educational technologies in their teaching. However, most participants 65% believe that the use of ICT is essential to ensure the quality of the programmes and the services of the university. There is a kind of agreement among participants that they are qualified enough to use ICT in their teaching: 5 participants 25% agree that they can always use the new technology in their teaching and 8 other participants 40% state that they can frequently use it. Furthermore, other participants 40% mention that some teachers only are qualified in using educational technology while others 20% are rarely competent in using such a technology. Only one participant 5% believes that teachers may not be well qualified in using educational technologies. The results show that 5 participants 25% admit the availability of educational technology





programmes and facilities in the university. On the other hand, 4 participants 20% state that such programmes and facilities are not always available but some of them and others assure that either sometimes available 25% or rarely available 30%. This difference is due to the fact that some teachers are not aware of how to use these programmes or not competent enough to use them in their teaching.

Table (1): Participants' responses to questionnaire items

ITEM No.	ALWAYS		REQUENTLY		SOMETIMES		RARELY		NEVER	
	No.	%	No.	%	No.	%	No.	%	No.	%
1	2	10	2	10	8	40	8	40	0	0
2	9	45	4	20	3	15	2	10	2	10
3	4	20	0	0	8	40	6	30	2	10
4	4	20	8	40	2	10	3	15	3	15
5	0	0	3	15	9	45	9	45	2	10
6	1	5	1	5	6	30	10	50	2	10
7	1	5	7	35	9	45	2	10	1	5
8	13	65	2	10	4	20	1	5	0	0
9	5	25	8	40	4	20	2	10	1	5
10	5	25	4	20	5	25	6	30	0	0

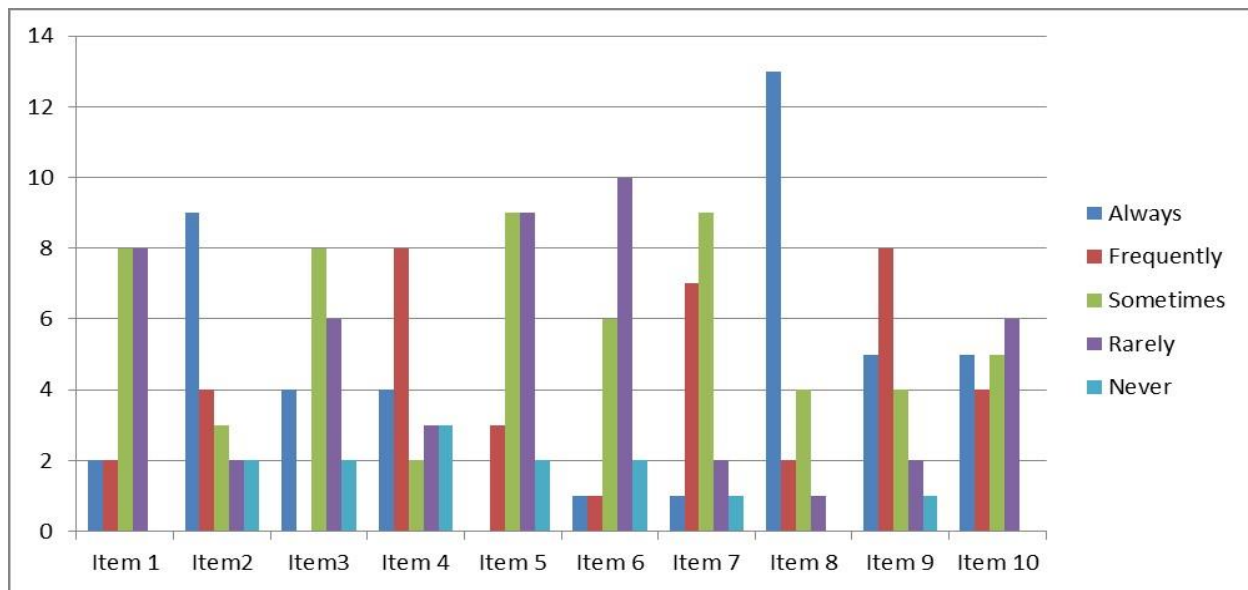


Figure (1): Participants' responses to questionnaire items

### 1.8 Conclusions

In the light of the above discussion of results, one can conclude the following:

1. Most teachers get benefit from the educational technology facilities and programmes available to them.
2. Using a Web- based environment in their teaching, teachers can develop their



- ways and strategies of teaching rapidly.
3. There is a high tendency to involve students in using ICT, since they play a significant role in the educational process. International students' demands to be incorporated in this process have been excluded from the MOHESR policy.
  4. The continuous learning plays a significant role in developing the university staff members and in urging them to use ICT in their academic career.
  5. Availability of educational technology facilities and programmes is highly determined by the policy of the MOHESR.
  - 6 Educational Technology helps improving the quality of the programmes and services of the university.
  6. Most of the teachers are qualified and ready to use ICT in their teaching.
  7. Teacher-student relationship can be more communicative through using ICT.

### The Appendix

*Dear colleagues,*

*You are kindly requested to participate in answering the following questionnaire which deals with the importance of using education technology in teaching English to Iraqi learners at the university level.*

- ICT = Information and Communication Technology

No.	Items	Always	Frequently	Sometimes	Rarely	Never
1	To what extent does teaching 18-24 year old students involve the use of ICT in your institution?					
2	How much is the internal ICT-related policy of your institution influenced by the (policies of) the MOHESR?					
3	To what extent is studying via a Web-based environment common in your institution?					
4	To what extent will your institution's ICT-related policy be affected by students' demands for more flexibility in times of learning events?					
5	To what extent will providing continuing education to persons in the workforce involve the use of ICT in your institution?					
6	To what extent will your institution's ICT-related policy be affected by demands from international students?					
7	To what extent is ICT being used in your institution to support communication between instructors and students?					
8	To what extent is the use of ICT important for the quality of education					

	programmes and services in your institution?					
9	To what extent are teaching staff qualified to use technologies in education in your institution?					
10	To what extent are educational technology programmes and facilities available in your institution?					

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