

A Web-Based System to Enhance Students' Abilities in English Education

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Abstract: The research deals with enhancing the students' abilities to learn English language. The enhancement will be in the form of web-based computer system hosted in the root establishment of education that the students can access using their own computers at homes or school computers. The proposed system will use the computer digital media like movies, dictionaries and speech facilities to simplify the reading, writing, listening, speaking and the vocabulary of the English language. The system is instructors' assistance system uses all attractive facilities to be students' favorite and beloved system and portable to give students the longest period of education with ability to share knowledge between them. It is an integrated multimedia system the override students motivations to enhance education facilities. The system will be implemented using the Microsoft Visual Studio development tool with aid of Visual C#.net integrated with Asp.Net tools to build the website according to the latest technologies in web-based application development. The designed system deals with analysis of the benefits of its usage, questioners to show its intended application results, its abilities to reduce education costs and increase education effectiveness.

Key words: Computer-Assisted Language Learning (CALL), Web-Based Learning (WBL), electronic learning (e-learning), English as a Foreign Language (EFL), Iraq

INTRODUCTION

The human being tries to develop the technology due to its own needs. Sometimes developments and innovations in technology show the new requirements of human beings. Some technological developments called worldwide revolutions. One or may be most important of the technological developments is a computer. The computer makes it possible to overcome some difficult calculations like numerical computations, database processing and etc, in less time and more reliable methods. Computers are not only used for vast computations and very complicated scientific processes but also used in most ordinary life routines. Text processing, spread sheets, games, etc are the most frequently used software in our life activities that take part in our routine works (Karakaya, 2010).

Moreover with the evolution of communication, internet and accessing information became more flexible, simpler, faster and less cost. The development in computer technology also encouraged the educators to focus on how to make advantage from such a capability (Durdu, 2003).

Technology has become a progressively important tool for people, everyday life and particularly the educational system. Several peoples are reliant on technology as their daily routine composed of regular

interactions with electronic devices and computers for the purposes of buying goods online, meeting persons, and working. Technology considerably affects social relations. Eric Qualman, founder of socialnomics, confirmed that the social statistics obtained from videos are (Barbaran, 2014).

Iraq EFL students as in the other Arab states, they deal with English only in school lessons which means that there are no other chances to use English outside these lessons. There are limited chances existing to the Arab students for teaching English during natural interactions in English due to the rarely meeting with the English speakers who come to their country as tourists (Ugla *et al.*, 2013).

The learners when learn more through using technology, they become a productive strength being part of the improvement and development operation of existing technology, developing technology by using it (Bradley, 2013).

Research problem: This in-depth study showed that the more a teacher had used the tool, the more useful they find using the tool. In another study, tried to learn how to teachers use Learning Management System (LMS) in diverse types of classes. They conducted surveys among teachers of different topics who used LMS heavily in courses. Based on the data, researchers classified these

courses into three groups-knowledge construction, knowledge transmission and mixed-and matched participant's learning strategies using LMSs with these categories (Liu, 2013).

Web-based education is a student-centered learning environment that aids learners to build their own knowledge during interaction with the different components of this learning environment. On other hand, the conventional educational system in Saudi Arabia is teacher-centered and students typically are passive learners and reliant on on teachers. This makes the operation of adaptation of web-based courses a slow process (Jabri, 2012).

English has become an obligatory part of more and more lower levels of the elementary curriculum as an universal language. Therefor the research a (web-based application) presented to support secondary schools students to have their English learning knowledge in schools, homes and everywhere using their PC's, laptops, smart phones. This website IYELS (Improve Your English Language System) enhances student abilities in learning English as a second language. It provides the following services:

- Dictionary services (vocabulary)
- Promote reading skills
- Promote writing skills
- Promote listening skills
- Promote speaking skills (pronunciation)
- Objects names using images and animations
- Watching videos
- Self-test
- Curriculum books
- Provide links to some web sites that useful to improve and learn English language

In the convent of the scientific challenges and the information revolution of the 21st century, there is a landslide trend to install computers in all aspects of education in life. On the other side, the world is moving towards knowledge economy and many funds will be invested in computer aided language learning educational software programs. Thus, it is worth examining the effectiveness of such Computer-Assisted Language Learning (CALL) programs on the performance of students (Naba'h *et al.*, 2009).

It is a known fact that technology has dramatically changed our life. This greatly led to wonderful innovations. Some technologies are granted by people have been taken. Therefore, it is obvious that new technologies are showing up rapidly and they are affecting the lives of people beings greatly. In a like vein,

technology, especially computer technology has been also used in teaching. It would be impossible not to see the effect of technology in education as fine. In this trend, schools are equipped with computers and other technological tools in order to improve the quality of learning and education (Hamiduzzaman, 2012).

Purpose of the study: The purpose of this research is to enhance and improve English language learning for secondary students those in intermediate and preparatory level as a second language in Iraq. The designed system tries to help secondary students to learn all skills of English language (reading, writing, listening, and speaking) in addition to vocabulary quickly and efficiently using a Web-based system. It is a free system. The proposed system aims to assist instructors or teachers to use the new technology in classrooms and to find out the level of students through tests included in the system (Karakaya, 2010; Young and Wang, 2014; Chen *et al.*, 2014).

The educational systems was delayed considerably due to a number of the problems that students facing such as the incapability of students to easily move and communicate with the curriculum every day in schools and also the bad situation in Iraq, so it needs new methodologies of education. Thus, they use e-learning technology to share solving these problems by designing and constructing a prototype educational system for Iraqi secondary school (Mohain *et al.*, 2010).

Significance of the study: The results of this study may increase knowledge on the teaching methods concept and provide data about effective methods to use instructional technology in order to improve English as a second language student's communication skill (Pagan, 2012).

The quantitative, correlative forecast study revealed the relation between middle school ELL student use of reading skill and electronic media. Media use might enhance understanding of linguistically difficult language exist in high-stakes tests. With an existing relation, instructional leadership might be able to strength teacher usage of electronic media in educational locations and provide parents with proposed electronic media usage paved the way for their children (Xu *et al.*, 2014). An increase in language acquire and reading proficiency at schools with large ELL populations may growth, the schools proportion of achieving AYP aims. Instructional leadership specifying on second language education could use the study results in the body of knowledge on second language acquire and instruction and provide instructors with training to maximize educational effectiveness (Ramirez, 2012).

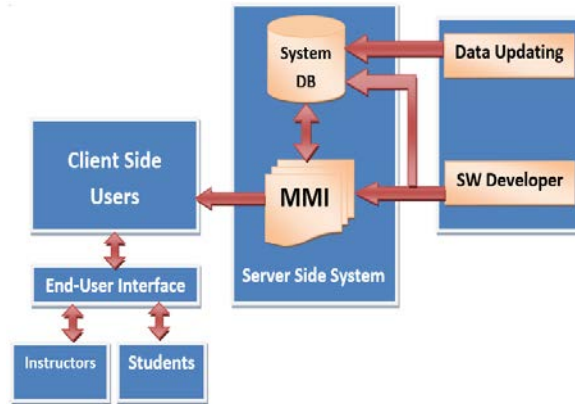


Fig. 1: The proposed system block diagram

Fig. 2: Insert reading data page

MATERIALS AND METHODS

The proposed system architecture

The server side sub-system: The proposed system can be depicted in Fig. 1. Server side sub-system This system consist from three part that described as follows.

Data updating group: This group is responsible about the data updating which include uploading the new files to the database like the new movies, animations, pictures, questions, examples, vocabulary and sounds used by the students or instructors. Deleting or upgrading the old data and replacing it with the newest data in this research (IYEL) system consist of seven pages page), Fig. 2 illustrates the insert reading data page, speaking page, testing page and the games.

SW developer: This subsystem component is used to page (vocabulary page, reading page, writing page, listening enable SW Developers to add new functions to the system using advanced SW Developers tools. It is built using Visual Studio 2010 with C#. NET and ASP. NET making benefits from the OOP facilities to produce an efficient system enriched with extra facilities of ASP NET.

This component acts as a start point for the continues development process responding to user needs. Upgrading the system component by adding new features to software system or upgrading the existing system services like enhancing system security or system availability.

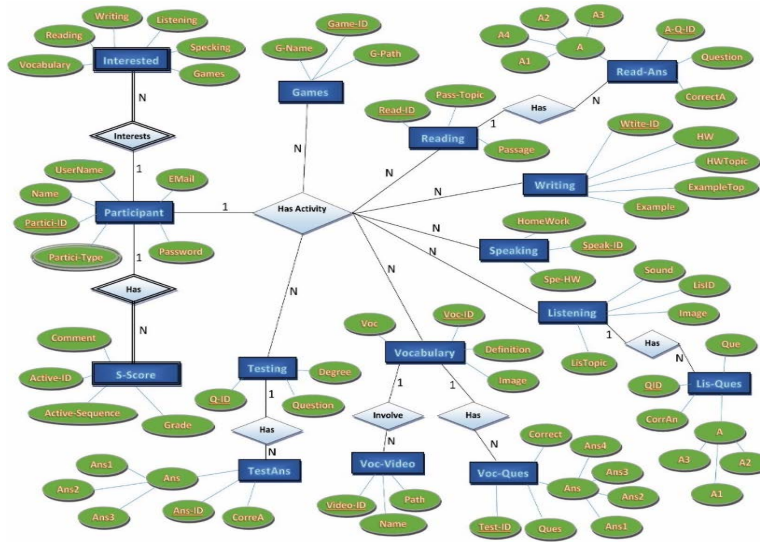


Fig. 3: ER diagram



Fig. 4: The home page

RESULTS AND DISCUSSION

MMI (Man Machine Interface): This sub-system used to protect system data from disturb and control the students and instructors access rights. It has the abilities to control data updating and users interrogation to present them the at most useful data. Figure 3 describes the overall databases of entityrelation.

Database entity relation (er) diagram: Figure 3 describes the overall databases of entity relation.

Client side subsystem (end user interface): This part consist from group of pages starting from (start page, home page, vocabulary page, reading page, writing page, listening page, speaking page, testing page and the end games page). In start page two login links, one for the student (Student Login) and second one for staff (Staff Login). In first one, the student can login to student page. In second link, the staff can login to staff page. In the home page you will see greeting statement and user name with some pictures that work as a slide show. This will attract and increase the user's attention to use this system. Following figures shows some examples about this part (Fig. 4-6).



Fig. 5: The vocabulary and image



Fig. 6: The game page

CONCLUSION

As aforementioned in chapter one, the purpose of this study is to improve the Iraqi students' capabilities in English education as second language learning using web-based system (IYEL). The (IYEL) system helps students and teachers in the principle learning at any time and any where. Web-based and computer technologies are used in a parallel form with conventional educational systems to raise student's level to develop their linguistic skills in a best form. Additionally, the existence of e-learning systems with the student for unlimited period of classroom hours gives an opportunity for students to improve their vocabulary and skills, reading, writing, listening and speaking. Consequently, IYEL enables people in rural areas to have more self-learning opportunities for English language acquisition.

Generally, Iraqi students have no high level of knowledge in English language. However, for this reason the system that presented in this study can address this situation. According to findings of previous studies about the impact of using WBL in educational process, the proposed system will enhance the students capabilities when it is applied in Iraqi schools to meet the requirement of the aforementioned studies.

The IYEL implemented using ASP.net and C# with the aid of using html to give the most important tools to attract and drew the attention of students such as images, movies, sound and games. This way of e-learning allows students to feel pleasure and fun with such a system which aim to develop students and teachers linguistic skills. The IYEL system can be used for both teaching and learning. In addition, the system provide wide collection

of new materials and subjects to complement classroom activities as well as it contain original books for both intermediate and preparatory levels.

RECOMENDATIONS

E-learning in Iraq is still in the beginning of its inception and needs to be significantly supported by the government. So the system can be applied by the government in all Iraqi's cities and their neighbors to be more effective. Moreover, we can connect the system to the intranet network to include areas that did not covered by education service.

Wherever the IYEL system is applied, many studies and analyzes can be done to improve the educational parameters to enhance the students weak ones. In addition, the system can be used as a platform for more future developments by adding new features for this system such as grammar and chat pages for students to increase the activity participate among them. Furthermore, we can add data mining techniques to prepare the intended data that support instructor to manage the lecture and to infer the student level with their interest and store them in the system DB to use it in the next user session

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