

Designing an Web-Based Program and Measuring its
Effect on Saudi Students EFL Learner's Achievement in
and their Attitudes Toward English.

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Abstract

This study aims at investigating the effect of the application of a suite of interactive web-based programs on EFL Saudi students learning outcomes and their attitudes toward learning English. The suite of interactive web-based programs applied was prepared by the researchers, and King Saud University (KSU) adopted Learning Management System "Blackboard". The participants of the study were 69 students randomly selected from King Saud University and assigned to experimental and control groups. A five-point Likert scale attitudinal questionnaire and an achievement test were used to collect data from the students who participated in this research. The findings of the study indicated that integrating the selected interactive web-based programs into EFL classroom had a positive effect on the experimental group students' achievement. The findings also revealed that students who participated in this study showed positive attitude towards using the designed programs with their EFL study course.

Key Words:

Interactive Web-based Programs, Saudi EFL University Students, EFL Learner's Attitudes, English language Instruction

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Introduction

Interactive Web-based Instruction has been among the main objectives of King Saud University for several years. A new computing language unit has been introduced recently to highlight this goal and to integrate computer and web-based applications into curriculum for teaching and learning language skills. Also, to achieve this goal,, the College of Languages and Translation (COLT) has built a number of e-learning laboratories which have been equipped with the state of the art hardware and software programs. These labs are connected to each other via intranet and to the internet as well. A class-management system is also provided to these labs in order to enable the instructor to control and manage the classroom, communicate with all students or individually as required to enhance the management of the lab-based classroom. This includes sending and receiving files from the students. In addition, the labs are equipped with electronic dictionaries, instructional software, authoring programs and testing software. It is, therefore, significant to carry continuous research to evaluate the investment in building such an electronic infrastructure together with the suitable practice to enhance the learning process. The researchers took part in this research in shedding light on how effective is using web applications on the students' of EFL and enhancing their attitudes toward EFL learning and improving their achievement in learning English. The researchers intend to investigate the effect of integrating web-based programs in contrast to the traditional method on the university students' achievement in EFL learning. Moreover, the researchers noticed that many Saudi EFL university students encounter different types of difficulties in learning English as a foreign language. They lack, for instance, the motivation to learn English(Keblawi, 2005). Consequently, they develop negative attitudes towards learning English. This has been obvious through note-taking of

the performance of the students. It seems that the current EFL teaching methodology employed in COLT neither helped the students to overcome the difficulties they face in learning English, nor did it motivate them to learn English, enhance their ability to learn it, or develop positive attitudes towards it. The researchers conclude that integrating technology into EFL classroom has sound potential to help improve the situation.

Integrating interactive Web-based programs in EFL teaching and learning have been known in the literature to reinforce and assess the learning process in EFL and other disciplines as well (Al Abdel Halim, 2009). Such learning environment usually includes substantial interactive elements. Researchers are in constant search for applications in language teaching to support learning (Al Abdel Halim, 2009). Interactive Web-based programs, unlike distance learning, are meant to supplement face-to-face language instruction, not replace it. In recent years, Interactive web-based program researchers have investigated the advantages of using computers as teaching/learning tools in improving different language skills. Many studies indicate that Interactive web-based programs provide an innovative and effective alternative for language instructors (Warshauer and Healey, 1998). In addition, many studies indicate that there has been an increase in the emphasis on computer technology and its integration at all level of education (Stepp-Greany, 2002). Furthermore, computers allow and motivate learners to progress in learning at their own pace and work individually to solve problems, with the ability to provide immediate feedback, so as the learners could get instant self-evaluation, they receive correction or assertion of their performance. The additional advantages of this is that when the learners could do that in a motivational learning environment.

About this , Moqbel (2013) illustrates

Technology, along with its various tools, has become an essential element in the process of teaching and learning languages. The most effective technology tool is computer. It

is essential for the use of most other technologies. With the help of multimedia and Internet, integrating computer in teaching and learning languages has become more effective and useful. Both multimedia and Internet with its synchronous and asynchronous tools can help effectively in teaching and learning languages, making that more interesting, enjoyable, and useful. Their importance in EFL teaching and learning comes out of the fact that they provide EFL learners with more opportunities and exposure to practice and learn English and its culture. They can also create motivating and enjoyable learning environment in which EFL learners are engaged.

Another advantages of Interactive Web-based programs is the opportunity to motivate shy students to feel free in their own students-centered environment. This will raise their self-esteem and their knowledge will be improved. Computers provide an individualized context and an interactional learning environment. The learner can use colors, graphics, painting, and TV screens (Al Abdel Halim, 2009). With proper design, programs help in retrieval and extraction of meaningful data analysis. Thus, such programs may facilitate the process of content analysis, main theme perception, keyword recognition, syntactic categories, and the covert the printed language into communicative one (Wright, 2003). The use of technology inside and outside of the classroom tends to make the class more interesting. It has been found that language teachers, with the aid of computers, can improve students' motivation (Jonita, 2002). Computers have the role of providing attractive context for the use of language rather than directly providing the language the students needs (Noemi, 2007).

Teachers, however, should be aware of this technological revolution, and be up to date with its use. They should learn about computer use noticing that Interactive Web-based programs could enhance learning in various ways and means. It gives room for group

work, and elevates the level of learning. It also improves the students' achievement by giving room for interaction with the materials to be learned. Graham (2007) found that integrating computer programs allows learners to learn on their own pace. He believes that the new technology facilitates learning as many foreign language teachers have found ways to integrate technology into their lessons.

Learners' attitudes towards learning EFL skills have been also linked to using computer technology. Greenfield (2003) reported that the majority of Hong Kong 10th and 11th grade students said that computer-based learning is enjoyable because they confidence in learning language via computer. They feel that computers help them improve their writing and speaking skills through developing their way of thinking and motivate them for more interaction and cooperation. Aacken (1999), also, stated that there is a positive interaction between students' positive attitudes towards using computer programs and instrumental motivation which lead to mastering language effectively. likewise, Warschauer (1996) also pointed out that Interactive Web-based programs enhance students' motivation to learn language skills such as writing and improve communication and interaction. Gousseva (1998) thinks that students' attitudes to electronic interaction in writing classes are generally positive because it allows them to see different viewpoints, and gives them a chance to read and learn more. In order to evaluate the success of Interactive Web-based programs, Gillespie and McKee (1999) called for the investigation of the students' attitudes towards the effectiveness of the use of computer programs, with different teaching approaches. Bernt et al. (1990) concluded that attractive benefits of computer applications play a dominant role in affecting one's attitudes towards using computers.

As educational decision-makers face the challenges of maintaining and expanding the instructional computing movement, they need current information about the past and potential impact of computer implications to help them invest their resources wisely. Moreover, the researchers

think that technology may help teachers and language instructors to enhance their own methodology for teaching and learning. They also think that teachers and learners should be motivated to use technology in the classroom. Teachers should have the courage, confidence and positive attitudes to utilize technology in their EFL classroom. Very few researches on the effect of this move have been conducted in Saudi Arabia. Therefore, this study aims at investigating the effect of using computers in English language learning on the achievement and attitudes of the university students.

As using computers in universities, schools and homes, in such a way that motivates EFL/ESL researchers to conduct research from different settings and contexts to examine the use of Interactive Web-based programs in the classroom. As technology brings about changes in the teaching methodologies and practices in foreign language teaching, teachers and learners should meet these changes. The computer by itself does not constitute a teaching method, but rather the computer forces teachers and learners to think in new ways to exploit the computers; benefits and work around its limitations to integrate them properly in EFL classroom. For this purpose language-teaching specialists are needed to promote a complementary relationship between computer technology and appropriate educational programs (Al Abdel Halim, 2009).

Brown (2002) thinks that learners should acquaint themselves with the new products of the global technology, like, the internet and desktop computer programs. He thinks that learners become active participants when they are involved in the learning process and are encouraged to be explorers and creators rather than passive recipients. Therefore, this study was designed to measure the effectiveness of a computerized language-learning program on the achievement of the EFL university students in English, and their attitudes towards English.

The present study attempts to investigate whether the outcomes of using computers in teaching English to KSU university students is significantly different from teaching English without the aid of computers. This comparative study examine the use of computer-assisted EFL instruction in contrast with using the traditional method and decide how far they differ in reaching the desired learning outcomes and the factors associated with this process. One of the factors associated with the learning process is the investigation of students' attitudes. Lasagabaster and Sierra (2003) believe that researchers should take into consideration students' opinions and attitudes when Interactive Web-based programs are evaluated because students are potential contributors to the development of the language learning tools, and experts in their learning. Moreover, Lasagabaster and Sierra stated that a strong relationship has been found between students' attitudes and their performance.

In fact, it attempts to examine the following hypotheses:

- The Interactive Web-based program does not have a positive effect on the Saudi EFL University students' achievement in English Language.
- The Interactive Web-based program does not have a positive effect on the Saudi EFL University students' attitudes toward learning English Language.

The variables of the present study include the following:

- The independent variable is the method of teaching which has two levels, the Interactive Web-based program within the Communicative Language Teaching and the traditional method.
- The dependant variables are the students' achievement in English and their attitudes toward learning it.

The review of the literature on Interactive Web-based programs and other related fields revealed that a substantial amount of research has been conducted on these fields, but there has been very few studies

conducted using a web-based instructional program in the Kingdom of Saudi Arabia. There might be similar studies conducted in different countries and different contexts, but the variables and environment are not similar to the current study's. The researchers reviewed some of the most related studies to the topic of this study.

Shields (1991) used an 8-week practicum that aimed at improving use of Standard English and attitudes towards students' writing in grades 6-8. Assessment of students' stories showed that their use of Standard English had improved. The post treatment questionnaire indicated that students enjoyed writing the stories and felt more positive about the writing process.

Richards (1996) surveyed teachers, library media specialists and students in grades K-12 and reported that the internet was a good motivational tool for students.

A study by Huang (1999) found that EFL college students using internet-related assignments had positive attitudes towards use of the internet in writing instruction.

Cunningham (2000) investigated the opinions of students towards using computers in a writing course. He indicated that students found the computer-based class more challenging but non-threatening. Students also think that computer is helpful because it enables them to pay attention to the mechanics of their writing. In addition, it was found that students' positive attitudes towards writing on computer contribute to improving their writing abilities by increasing their motivation to write and revise, and sharing their ideas with classmates.

Al-Seghayer (2001) examined the effectiveness of a hypermedia-learning program designed to provide users reading a narrative English text with a variety of glosses or annotations for words in the form of printed text, graphics, video, and sound on aiding vocabulary acquisition. The findings of the study indicated that a video clip is more effective in

teaching unknown vocabulary words than a still picture. This finding can be explained as follows: video better builds a mental image, better creates curiosity leading to increased concentration, and embodies an advantageous combination of modalities (vivid or dynamic image, sound, and printed text).

Wood (2001) examined the pedagogical underpinnings of a number of software programs designed for elementary grade students, particularly the extent to which they are aligned with current research for both L1 and L2 learners. She also studied the potential of technology (e.g., hypertext, animations) to enhance vocabulary learning. The findings of the study showed that many products that made no explicit claims about fostering vocabulary learning, in fact, incorporated more guidelines than many that made explicit claims. Those in the latter group often merely varied a drill and practice routine rather than helping students really know a word. The findings of the study also revealed that the potential of technology to help students understand word meanings has yet to be fully exploited.

Brandl (2002) provided guidance to teachers and curriculum developers by describing three approaches to integrating Internet-based reading materials into a foreign language curriculum. Moreover, the author stated that the design of an internet-based lesson is largely determined by a teacher's pedagogical approach, her/his technological expertise, and the students' language proficiency. In addition, the author indicated that the approach to the pedagogical design of successful lessons falls along a continuum from being teacher-determined or teacher-facilitated to student determined. Finally the article described the strengths and challenges of each approach from a pedagogical, technological and designer's point of view.

Tsou, Wang & Li (2002) investigated the effect of a web-based writing program "My Access". The findings of the study indicated that students who used the web-based writing program got better gains than

the regular writing group in most variables, especially in “content”, “development”, and “organization.

Al-Makhzoumi & Abu Al Sha'r (2003) compared the effects of using computer multimedia approach and context based approach on EFL major university students' learning of English. The findings of the study revealed that students in the experimental group, who received instruction via computer multimedia, significantly outperformed students in the control group, who received instruction via context-based materials. The authors stressed the need for more emphasis on the use of computer assisted multimedia to promote the instruction and learning of English among English major students and teachers.

Greenfield (2003) studied secondary ESL students' attitudes and perceptions of a collaborative e-mail exchange between a 10th grade ESL class in Hong Kong and an 11th grade English class in Iowa. It was found that the majority of Hong Kong participants said they enjoyed the exchange, gained general confidence in English and computer skills, and felt that they made significant progress in writing, thinking, and speaking.

AbuSeileek (2004) investigated the effect of a computer-based program on Jordanian first secondary grade students' writing ability in English. The study revealed that there were statistically significant differences between the mean scores on the writing task of the experimental group who received instruction via computer and the control group who received instruction via the traditional method in favor of the experimental group.

Al-Jarf (2004) tried to find out whether there were significant differences between EFL freshman students exposed to traditional in-class writing instruction depending on the textbook only, and those exposed to a combination of traditional in-class writing instruction and web-based instruction in their writing achievement. The findings of study showed that students in the experimental group who were taught using a

combination of web-based writing instruction and traditional in-class writing instruction scored significantly higher than the control group that was taught using traditional in-class writing instruction depending on the textbook only. The findings of the study also indicated that use of technology had a positive effect on their attitude towards the writing process.

Chen et al. (2004) investigated the learning effectiveness of a Web-based course called Academic English (EAP) for Japanese learners of English. The findings of the study indicated that there was no significant effect of treatment on either comprehension or general L2 development, but significant differences were found with respect to language interaction for task completion under different task treatments.

Levy and Kennedy (2004) studied the effectiveness of a task-cycling pedagogy for language learning utilizing computer-mediated audio-conferencing tools. The findings of the study revealed that using such techniques could facilitate students' acquisition of the linguistic forms of the Italian language as a second language and their ongoing independent language learning.

Pacheco (2006) investigated the effectiveness of Cyberl@b, a noncommercial interactive software for learning and practicing English, on 7th, 8th and 9th graders in Costa Rica. The findings of the study indicated that the implementation of Cyberl@b indicates that when students engage in authentic activities relevant to their needs, they become more autonomous and self-directed in their learning. It was also found that teachers adopt more learner - centered methods in their language teaching.

Abu Seileek (2007) investigated the effectiveness of two - mediated techniques – cooperative and collective learning – designed for teaching and learning oral skills, listening and speaking. He also investigated students' attitudes towards using a CALL approach and techniques for teaching oral skills. The findings of the study showed that

the cooperative computer-mediated technique is a functional method for learning and teaching oral skills. The survey conducted in the study also showed that students react positively to both the CALL approach and the cooperative computer-mediated technique.

Chang et al. (2007) examined students' learning processes, effectiveness and attitudes via an online interactive English learning system. The findings of the study revealed that students who learned English via the online interactive learning system and traditional teaching methods performed better than those who learned English via traditional teaching methods only. The findings of the study also showed that the interactive learning system helped motivate students to learn English, and enhanced their listening and reading proficiency.

Xing et al. (2008) investigated the potential impact of e-learning on raising overseas students' cultural awareness and explored the possibility of creating an interactive learning environment for them to improve their English academic writing. The findings of the study revealed that the group using the e-course was successful in learning about defined aspects of English rhetoric in academic writing, reaching a level of performance that equaled that of native English speakers. The findings of the study also showed that e-learning resources helped students to compare rhetorical styles across cultures and that the interactive learning environment was effective in improving overseas students' English academic writing.

Bani-Hani (2009) investigated the effectiveness of a computerized instructional program for teaching English as a foreign language in Jordanian basic stage schools and the teachers' and students' opinions about computer-assisted language learning (CALL). The findings of the study showed that there were statistically significant differences in the students' achievement in favor of the experimental group. The findings of the study also indicated that teachers and students

had the inclination to use computers in teaching and learning English as a foreign language.

Pan & Huang (2009) design a web-based English outside reading learning system for college students to study English reading outside the classroom by themselves and explored the web-based learning system's effects on students by comparing it with the reading of traditional printed materials. The findings of study indicated that the group using the web-based learning system had significantly better English reading comprehension, higher English learning motivation, and greater learner satisfaction. The findings of the study also revealed that most of the web-based learning students held very positive views of the design, presentation and functions of this web-based learning system.

Tseng (2010) examined how online reading affected Taiwanese EFL students' reading and the difficulties they encountered during the process of online reading. The findings of the study indicated that students disliked reading from computer screens. The findings of the study also showed that the factors that affected students when reading hypertext were font size and background color of web pages. The findings of the study further revealed that the major difficulties included eyestrain, inability to take notes or underline text, and skipping lines when reading hypertext on computer screens. Finally, the findings supported the claim that students found hypertext reading to be more difficult than linear reading.

Baralt et al. (2011) described how word clouds, or wordles generated by Wordle, a data visualization tool, were used in an action research project designed to facilitate the teaching of foreign language (FL) writing within a dual coding theoretical framework. The wordles were used as visual tools to discuss students' writing development, writing strategies, and lexical acquisition. The article concluded with a discussion of ways in which instructors can incorporate wordles into their FL classrooms to facilitate the teaching of L2 writing, as well as use

them as tools to promote vocabulary development and communicative task-based teaching and learning.

Cross (2011) explored the role of the visual content in L2 listeners' comprehension of news videotexts. The findings of the study showed that various attributes of the visual content, such as audiovisual correspondence, impacted on comprehension. It was also found that there were other influences of the visual content. These influences include its general utility in facilitating comprehension, inhibiting of attention to, and processing of audio information, and stimulation of learners' expectations and inferencing of content.

Eyadat (2011) investigated students' attitudes toward the use of computers in the classroom at "New Horizon" school. The findings of the study indicated that students generally had positive attitudes toward technology and toward learning via technology. The findings of the study also revealed that neither gender nor grade level impacted student's attitude toward technology or their attitude toward learning using technology. Finally, the study provided a number of field suggestions one of which states that data does not provide conclusive evidence that students' attitudes toward subject specific learning are impacted by their technology based learning experiences.

Hismanoglu & Hismanoglu (2011) investigated whether students taught via internet-based pronunciation materials are better at articulating problematic English vowels than those taught via printed pronunciation materials. The findings of the study showed that Turkish EFL learners can solve their articulation problems with the problematic English vowels by being exposed to internet-based pronunciation lessons.

Lu & Liu (2011) investigated the effectiveness of using multimedia in teaching English as a second language. The researchers asserted that using multimedia networking technology in the instruction of English language can make students the center of the learning process, help them to learn actively instead of passively and encourage

autonomous learning, and allow them to learn language according to their abilities, needs, and preferences.

Al-Saleem (2012) described and analyzed the uses of Interactive Whiteboards in English as a Foreign Language (EFL) classrooms. The researcher concluded that the interactive whiteboard is a very innovative and powerful support for language acquisition. Firstly, it provides a bridge that allows using the features of computers without breaking communication. Secondly, it may enhance new kinds of learning processes. Finally, it offers a very interesting option for bringing the Internet into every EFL class.

Alqatawneh & Abu Ghaida (2012) investigated the effect of using a technology-based reading strategy instructional program on enhancing reading comprehension skills of EFL learners. The findings of the study revealed that there was a statistically significant difference at the level of 0.05 between the mean scores of the two groups on the entire reading comprehension test, and on the three subscales of the reading comprehension test in favor of the experimental group. The findings validated that computer-based reading strategy instruction yielded better achievements in EFL learning.

Barrs (2012) reported on how technology was used to deal with the issue of an identified lack of English language interactional opportunities outside of the classroom. A Computer-Mediated Communication (CMC) programme was implemented during an eight-week summer vacation period, in order to provide a platform for students to interact in the target language outside of class. It was found that a CMC programme can offer students a convenient and useful platform on which to continue to communicate in the target language while outside of their classes, but that the construction of the platform needs input from both teachers and students.

Brockley (2012) examined the interaction between teacher, learners and audio-visual, computer-based activities presented on a

screen in a Korean young learner EFL context using a competitive game lesson format. The findings of the study are mixed regarding actual observed triadic interaction, but the learners in this study expressed positive views in terms of engaging in computer screen competitive game lessons.

Godwin-Jones (2012) stated that instructed language learning in higher education normally includes use of the Web: as a resource in face-to-face classes, as an equal partner in instructional delivery in hybrid courses, or as the primary teaching and learning environment in distance learning. Most often today this is enabled through use of a learning management system (LMS) such as Blackboard Learn or Moodle. Moreover, he added that the use of these systems makes setting up a course Web site quick and easy, while offering an array of course management and teaching tools. At the same time, however, these systems embed pedagogical and cultural values which raise questions about learning design, instructional choice, and computer literacy.

Haider & Chowdhury (2012) studied , based on a survey of the Communicative English Language Certificate (CELC) course run by the Foreign Language Training Center (FLTC), a Project under the Ministry of Education, Bangladesh, how aspects of CALL are being integrated within a framework of Communicative Language Teaching (CLT). The findings of the study indicated that the trainees gave a positive response about the contents, facilities, and organization of the course but not completely satisfied with the teaching techniques and participants' role as independent learners. The researchers asserted that there is a need for making the computer based learning materials more accessible to the learners so that they can use them more independently in and outside the language lab.

Huiying (2012) designed and developed a Web-based platform which aims at improving interactive English as Foreign Language (EFL) teaching and learning. In EFL teaching and learning, the findings showed

that Web-based platform can effectively improve interaction among teachers, students and resources on Web; the platform can improve the efficiency of EFL teaching and learning. The findings also indicated that there are two points for the improvement of Web-based platform. One point is that the contents of platform should be updated and enriched by both teachers and students; the other point is that the management of platform should be improved to avoid the maintenance deficiencies.

Kessler et al. (2012) tried to explore and understand the changing nature of collaborative writing, as it is influenced by Web-based writing contexts. The findings of the study revealed that students focused more on meaning than form, that their grammatical changes were overall more accurate than inaccurate, that they participated with varying frequency, and that they used the tool for simultaneous varied purposes. It was also found that student feedback about the Web-based collaborative activity and use of Google Docs offers additional insights. Finally, the researchers discussed observations about the evolving nature of Web-based collaborative writing and associated pedagogical practices including considerations about student autonomy.

Mahdi & El-Naim (2012) investigated the impact of informal use of computer-mediated communication (CMC) on English as a Foreign Language (EFL) learner's interaction. The findings of the study indicated that informal use of CMC can be affected by many factors such as the voluntary nature of learner participation, busy schedules, and the teacher interference. The findings also revealed that the participants had positive attitudes towards using CMC to improve their language.

Prince (2012) presented firstly a set of seven principles that lie behind the development of a vocabulary learning resource destined for French learners of English in higher education, and secondly an experiment investigating the use of narrative as a device to facilitate recall of target words. The researcher compared a condition in which target words were embedded in a series of sentences within a narrative

framework (story condition) to a condition in which similar sentences bore no connection to each other (unrelated condition). The findings of the study showed that linking sentences containing target words within a narrative framework leads to better recall on an immediate post-test than when sentences are unrelated.

Bagheri et al. (2013) tried to find out if blending Web 1.0 and Web 2.0 tools could help the Iranian EFL learners improve their writing abilities. The findings of the study revealed that Web 2.0 tools, especially social networks, could help the Iranian EFL learners improve in their writing skill. Moreover, the findings of the study also showed that using Web 2.0 tools, female students performed equally well compared to the male students.

Jalkanen (2013) dealt with using digital texts in teaching reading comprehension on a university-level course with a special focus on Finnish as a second language. Furthermore, the benefits and challenges of teaching L2 reading comprehension in a multimodal learning environment were discussed. The study examined the literacy practices that take place when learners of Finnish as a second language engage in reading and writing blogs in a reading comprehension course. The findings of the study indicate that sharing, meaningfulness and adaptivity promote learners' engagement with reading as a social practice and thus support the claim that using blogs represents opportunities to enhance L2 reading comprehension skills.

Khany & Boghayeri (2013) investigated (1) Iranian teachers' attitudes toward implementing Web 2.0 tools in language classrooms, and (2) practical constraints on the use of Web 2.0 tools in language pedagogy. The findings of the study indicated that on the contrary to the popular belief that these tools are useful in language pedagogy, they are bedrocks, not the materials. The findings also revealed that Iranian EFL teachers had little if any idea of how to use such tools, which turned out

to be along some other constraints the main obstacle in using such tools in the classrooms.

Most of the reviewed studies were conducted on learners of a native or second language while this study is on learners of English as a foreign language. Therefore, it is hoped that it will help those who are involved in research and in the educational process in gaining insights into the new Saudi web-based instruction experience and seek to improve it over time. Moreover, it may encourage further research in this field, which may, in turn, enrich the area of Interactive Web-based programs designed for EFL teaching in general. Furthermore, it is expected that this study will add a block stone to the effort that aims to construct a reasonable and flexible Interactive Web-based programs, which helps in developing learners' achievement in learning English. In addition, to the researchers' best knowledge; few studies have dealt with the effect of Interactive Web-based programs on the Saudi EFL university students' achievement in English and their attitudes toward it. The researchers, therefore, have designed an Interactive Web-based program to be at the instructors' and students disposal, which they can use when teaching and learning English language skills inside or outside the classroom. The students can use this program easily at home and expand their knowledge by utilizing the available resources in the program. Instructor may also benefit from the program to enhance their creativity and to establish new techniques for teaching language skills via computers and the web. They may also benefit from this study in designing new computer programs to teach English.

Finally, it can be concluded that these studies conducted to investigate the effect of computer programs showed a positive influence on EFL students' achievements. This also gives an indication that the researchers' web-based program has the potential to help enhance students' learning of English.

Method

The present study was carried out with King Saud University students following a randomized control-group pretest-/post-t-test design. The subjects were randomly assigned to two groups. Each group was then assigned randomly to either the control group or the experimental group. The treatment consisted of two levels: using computers to enhance communicative language teaching and the traditional method alone. The experimental group undertook the first level of the treatment and the control group undertook the second level. The experimental group used the computers for three 45-minute periods a week for the six-week duration of the experiment. Both groups were subjected to a pretest immediately before starting the experiment and the same test was administered as a posttest immediately after it.

The population of the study consisted of all students who studied the English language course (Najem 101) in the second semester of the academic year 2012-2013. The sample of the study consisted of 69 students who were chosen randomly through the random sampling techniques in the statistical package SPSS. Then the 69 students were randomly assigned into experimental group (34 students) and control group (35 students).

In order to collect the data of the study, the researchers used three instruments: an instructional program, an achievement test, and an attitude questionnaire.

A- The instructional program

Based on the literature review of current web-based programs that fit into interactive language learning, the researchers put together a suite of web-based interactive programs with the assistant of software designers. The web-based program was then evaluated by a jury of three English language university professors, two computer experts, two specialists in instructional technology, two specialists in evaluation and

assessment and two educational psychologists at King Saud University. Based on the remarks of the jury, the preliminary version of the instructional program was modified. The instruction program consisted of two main parts. The first part contains reading passages, animated visualized presentation of grammar, visual presentation of the vocabulary items, and animations in the form of cartoon dialogues. The second part of the instructional program consists of interactive exercises and drills on the reading passages, the grammar, vocabulary items, and listening skill. In fact, the researchers used computers to facilitate English language learning by providing the learners with an appropriate time to work using graphics, sounds, colors, video presentations, and animation. The instructional program was tailored towards meeting the learners' needs and interests. It was developed in relation to the textbooks of the English course: Eng 101 curriculum.

B- The achievement test

The researchers developed a 40-item-multiple choice test. Test items had 4 choices, only one of which is correct. The students were instructed to answer the questions by circling the correct choice. The test included items dealing with reading texts, vocabulary questions, understanding certain grammatical constructions, and listening skill. In scoring, students'achievement was computed out of 100, allotting 2.5 points for each correct answer and 0 for each wrong answer. The time interval between the pretest and the posttest was 6 weeks; a period long enough to minimize the effects of the pretest on the results and the conclusions of the experiment. The test was designed and administered by the researchers. The researchers themselves conducted the study. An Independent-Samples t Test was used to measure the gain scores of both groups on the pretest and then on the posttest. A One-Way Analysis of Covariance (ANCONA) was used to measure the gain scores of the subjects in order to eliminate any possible differences between the two groups on the pretest.

The usability of the test was tested through a pilot study of 20 students who were excluded from the sample. The reliability coefficient of the test was calculated using Cronbach-Aalpha and was found at 0.91. The test was also given to the same jury to elicit their views as to the accuracy, clarity, and appropriateness of the instrument. Then the test was reviewed and modified according to their recommendations.

C- The attitudinal questionnaire

An attitudinal questionnaire was developed based on Gardner's Motivation/attitude Test Battery (1985), with modification to fit into the study context. The questionnaire consisted of 10 items about the general attitude towards using computer programs for learning EFL. The outline format of the questionnaire was given to the same jury. They were requested to evaluate the suitability of the items and clarity of the rubrics. Their comments and suggestions were taken into consideration. The items of the attitude questionnaire were set on a five-point Likert scale (5=strongly agree, 4=agree, 3=undecided, 2=disagree, and 1=strongly disagree). The means were classified as follows: Strongly disagree between 1 and 1.49, Disagree between 1.5 and 2.49, Undecided between 2.5 and 3.49, Agree between 3.5 and 4.49, and Strongly agree between 4.5 and 5. The questionnaire was piloted, and initially Cronbach's Alpha was run and determined to be 0.89.

Results

This study aims at investigating the effect of integrating web-based programs into EFL classroom and measures its effect on Saudi EFL learner's achievement in and on their attitudes toward English. This section represents the findings as guided by the hypotheses of the study.

The First Hypothesis

The first hypothesis investigates the effect of integrating web-based programs on Saudi EFL University Students' achievement in EFL learning. It compares using the web-based computer programs with using

the traditional method. The researchers hypothesize that the students who were taught through interactive web-based program with the CLT method show better achievement than those who were taught through the traditional method alone. This hypothesis was tested at the 0.05 level of significance. The data were collected through a pretest-treatment-posttest design for equivalent groups and analyzed via the statistical package SPSS. An independent-samples t test was carried out to determine whether there are any statistically significant differences between the achievement of the two groups on the pretest. Table (1) represents the results.

Table (1)

Results of the t Test of the Means of the Achievement of the Two Groups on the pretest

PRETEST	Group	N	Mean	Standard Deviation	T	Sig.
	Control Group	35	78.80	16.89	-0.161	0.873
	Experimental Group	34	79.52	14.76		

Table (1) shows that the difference between the achievement of both groups on the pretest is not statistically significant at $\alpha = 0.05$. Thus, since there is no statistically significant difference between the control and experimental groups on the pretest, the two groups were assumed equivalent. Another independent-samples t test was conducted to determine whether or not there is a statistically significant difference between the two groups' achievement on the posttest. Table (2) shows the results.

Table (2)
Results of the t Test of the Means of the Achievement of the Two Groups on the posttest

POSTTEST	Group	N	Mean	Standard Deviation	T	Sig.
	Control Group	35	79.92	16.39		
	Experimental Group	34	89.00	10.80		

Table (2) shows that there is a statistically significant difference at $\alpha = 0.05$ between the achievement of the experimental group and that of the control group on the posttest in favor of the experimental group. This indicates that using computers in English language instruction to the university students has a positive effect on students' achievement. The mean score for the experiment group on the posttest was 89.00 while that of the control group was 79.92.

Moreover, in spite of the fact that the difference between the achievement of the experimental group and the control group on the pretest was not statistically significant, to eliminate initial differences, a one-way ANCOVA was carried out. Table (3) shows the results.

Table (3)
Results of the Test of Between-Subjects Effects

Source	Sum of Squares	df	Means of Squares	F	Sig.
Pretest	8149.454	1	8149.454	349.352	0.000
Group	700.591	1	700.591	30.033	0.000
Error	1096.386	47	23.327		
Corrected Total	10061.920	49			

Table (3) shows that there is a statistically significant difference between the experimental group and the control group on the posttest.

The achievement of the experiment group, measured by the difference between the pretest and the posttest, was significantly better than that of the control group.

The findings of this part of the study are consistent with studies conducted in the Saudi/Arabic context such as Al-Seghayer (2001), Al-Makhzoumi and Abu Al Sha'r (2003), Al-Jarf (2004), AbuSeileek (2004), AbuSeileek (2007), Bani-Hani (2009), Al-Saleem, Alqatawneh & Abu Ghaida (2012), and Mahdi & El-Naim (2012), as well as in other contexts such as; Shields (1991), Richards (1996), Cunningham (2000), Wood (2001), Tsou, Wang & Li (2002), Greenfield (2003), Levy and Kennedy (2004), Pacheco (2006), Chang et.al (2007), Xing et.al (2008), Pan & Huang (2009), Cross (2011), Hismanoglu & Hismanoglu (2011), Lu & Liu (2011), Barrs (2012), Huiying (2012), Prince (2012), Bagheri et.al (2013), and Jalkanen (2013). All of these studies showed that using computer in English language instruction has positive effects that helped students improve their language skills.

The Second Hypothesis

The second hypothesis aims at investigating the effect of Interactive Web-based program on the Saudi EFL University students'attitudes toward learning English Language. Table (4) shows the means and standard deviations of each item based on the students'responses to the attitude questionnaire.

Table (4)
Means and standard deviations of the Items of the attitude questionnaire

Item No.	Rank	Item	Mean	Standard Deviation
1	1	I believe learning via computer has a positive effect on improving my understanding to the course components.	4.61	0.51
2	2	My participation in the CALL program has enhanced my desire to learn English.	4.56	0.65
9	3	The materials presented in the CALL program were more interesting than those in the book-and-chalkboard method.	4.52	0.38
3	4	After participating in the CALL program, I became more motivated to learn English via computer.	4.51	0.76
10	5	I benefited a lot from getting immediate feedback concerning my correct answers and learned a great deal from my mistakes.	4.45	0.69
7	6	If I had the opportunity once again to take part in a similar CALL program, I will definitely do so.	4.32	0.80
4	7	I wish I used computer technologies with all of the course components since the beginning of the semester.	4.27	1.19
5	8	The CALL program used in the study was easy to use and surf.	4.21	0.88
6	9	There were some problems in the computer lab while using the program due to the computer sets.	2.35	0.66
8	10	Learning via computer is entirely similar to the traditional method of learning and there are no differences between them.	1.48	1.03

Table (4) shows that the means ranged between 1.48 and 4.61 with standard deviations that ranged between 0.38 and 1.19. Table (4) also shows that items 1, 2, 9 and 3 gained mean scores ranging between 4.51 and 4.61. All these items fall within the category "strongly agree" and constitute 40% of the total number of items. Moreover, the table shows that items 10, 7, 4 and 5 gained mean scores ranging from 4.45 and 4.21. These items fall within the category "agree" and constitute 40% of the total items. Furthermore, table (2) shows that item number 6 gained a mean score of 2.35, falling within the "disagree" category. Finally, table (2) shows that item number 8 gained a mean score of 1.48, falling within the "strongly disagree" category.

The findings of this part are consistent with studies conducted by Shields (1991), Huang (1999), Cunningham (2000), Greenfield (2003), Al-Jarf (2004), AbuSeileek (2007), Chang et.al (2007), Bani-Hani (2009), Pan & Huang (2009), Eyadat (2011), Brockley (2012), and Mahdi & El-Naim (2012). All of these studies showed that students have a positive attitude towards interactive web-based programs.

Moreover, the findings of the study agree with the hypotheses of the study as it was found that Interactive Web-based program has a positive effect on the Saudi EFL University students'achievement in English Language and it has a positive effect on the Saudi EFL University students'attitudes toward learning English Language.

The generalizability of the findings of this study may be limited by the following:

- This study is restricted to two groups of Eng 101 students at the College of languages and Translation at King Saud University.
- The small sample size limits the generalization of the findings of the study.
- The findings are bound by the time limit for the period in which the study was conducted as technology and its applications may change in the future.
- Females were not included in this study.

Discussion

With regards to the findings of the first hypothesis which investigates the effect of Interactive Web-based programs on Saudi EFL University Students'achievement in English language, the findings show that the students of the experimental group outperformed the students of the control group as the mean score for the experiment group on the posttest was 89.00 while that of the control group was 79.92. This shows that there is a statistically significant difference at $\alpha = 0.05$ between the achievement of the experimental group and that of the control group on the posttest in favor of the experimental group. The researchers believe that the difference in the achievement of the students was attributed to using computers in EFL instruction within a student-centered CLT learning environment. The researchers think that this is mainly due to the ability of the computer program to bring interactive tools such as sound and animation to aid the CLT and help the students better in understanding the learning content. Besides, the instructional materials were presented in a simplified way and in a sequential and logical order than that in the traditional method where the teaching aided are limited to printed materials. Furthermore, the differences between the two groups can be attributed to many other reasons. First, using computer in English language instruction is a novelty. This novelty may have encouraged the students to deal with the computer enthusiastically, which may have been reflected in better achievement. Second, computers depend on programs that are based on individual learning and consider the level and pace of the individual. This may enhance learning as the learner may feel that s(he) is in control of the whole learning process. Third, using computers allows the students to repeat the same piece of information or drill as many times as necessary for them to understand. In addition, they are able to refer to the learning material any time they want. Fourth, using computers in instruction makes the students become less shy of committing mistakes, which encourages them to learn much better and then improve their achievements and this was reflected in

students' behavior in the experimental group through note taking. Fifth, students using the computers might have felt that they were not being watched or judged and, thus, that the work they did was their own private property. Therefore, they were relaxed about pooling information and seeking help from other students. Finally, computers have many positive characteristics such as speed, accuracy, variability of presentation and flexibility of use and control, which explains why it outdoes other presentation modes such as books.

Concerning the findings of the second hypothesis which aims at investigating the effect of Interactive Web-based programs on the Saudi EFL University students' attitudes toward learning English Language. The findings of this part showed the students strongly agree that the Interactive Web-based program has a positive effect on improving the students' understanding to the course components; enhances their desire to learn English; is more interesting than the traditional method and motivates them to learn English via the computer. The findings also showed that the students agree that the Interactive Web-based program provides them with immediate feedback, which benefited them a lot and found it easy to use and surf. They also agree to participate in a similar program in the future and use computers with all of the course components. Moreover, the findings revealed that the students disagree with the sixth item, which means they did not face any problems in the computer lab while using the program. Finally, the students strongly disagree with the eighth item, which means that learning via computer differs from the traditional method of learning. These findings indicate that the Saudi EFL university students have a positive attitude towards Interactive Web-based programs and this affects positively their attitudes towards learning English language. In other words, the researchers deeply believe that the positive attitudes that the students have towards learning English is due to the use of the Interactive Web-based program. It is apparent that using Web-based learning programs is a worthy of investment is applied based on sound theoretical framework and proper

selection of the computer program. More research is, however, highly recommended to investigate this subjects from different perspectives and with different variables and settings.

Conclusion

In the light of the findings of the present study, the researchers can say that the use of technology inside and outside the classroom tends to make learning more interesting. Interactive Web-based programs can promote learners motivation by using multi-media components. This incorporates challenges, curiosity and provides learners with real world context. Moreover, the findings of this study suggested that integrating web –based programs into EFL instruction, was effective for enhancing students' performance and provided a positive learning experience.

The researchers can also say that although the findings are sound and important to the field of Interactive Web-based programs, it has some limitations. The first limitation is that the study is restricted to two groups of Eng 101 students at the College of languages and Translation at King Saud University. Another obvious limitation of the present study is the limited sample size. Therefore, generalizations must remain tentative. A third limitation is the time limit for the period in which the study was conducted. A fourth limitation is female absence. All of the participants were males. If female students participated, the results might be different.

Regarding the implication of this study, it can be mentioned that the most important contribution of this study will be its classroom applications. If learners are in settings in which the environment is creative and enjoyable, their motivation for learning English would increase, anxiety and stress would decrease, and their attitudes towards learning English will be positive. The results of this study can be useful for material designers as well. If they consider the significance of Interactive Web-based programs in classrooms, they can provide books with these kinds of programs to create more interactive materials process

of language learning for learners support textbooks. Another implication of the research will be for EFL teachers. They should teach language in such a way that they can increase learners' motivation and interest by carefully selected interactive materials i.e. interactive computer based programs, or computer games to enhance learning.

This study represents a preliminary effort to empirically examine the effect of Interactive Web-based program on university students' learning of EFL in the Kingdom of Saudi Arabia and their attitudes toward it. Further research is needed for a thorough understanding of this issue and for the confirmation of its findings. This is especially true when conducting research with more variables than those in the present study. It is also recommended that this study be replicated with a larger number of participants and over the whole semester or the whole year. In addition, it would be interesting to compare results across levels of proficiency as well as gender. Researchers are further recommended to study the effect of using computers with the school students' learning of EFL. There is, also, a need to investigate whether and what theories of learning with technology could teachers adopt. In addition, further studies might describe what teachers should do with technology in their own classrooms. Research in this area should identify the needs of both language learners and instructors and the role that effective technology education and integration can play to meet learners' needs. Finally, universities, ministry of education and other Saudi educational institutes are recommended to conduct more empirical research with large study samples to help take measure decision in technology adaptation and integration into curriculum.

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