

The Effectiveness of Using an Online Games in Enhancing Students' Motivation towards Learning English

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ABSTRACT :

Learning English is often viewed as a boring and uninteresting process, especially for children who have grown up in the digital age. One effective way to increase learners' motivation to study English is to employ online games. One successful method is to use these games to enhance learners' intrinsic motivation. The present study aimed to investigate the effectiveness of an online game, such as crossword puzzles, in developing students' motivation to learn English. The 40 students participated in the study, which lasted approximately eight weeks. The experimental group learned vocabulary related to food, clothing, and furniture through playing the online game, while the control group studied the same vocabulary using traditional methods. In the sixth week, a post-test was administered using questionnaires that used a modified version of (Gardner, 1988) attitude/motivation battery to measure students' motivation. The results showed that the experimental group scored higher than their control group peers, indicating that playing the online game contributed to raising their motivation to learn English.

Keywords: Online Games, Learning English, Motivation.

فعالية استخدام الألعاب الإلكترونية في تعزيز دافعية الطلاب لتعلم اللغة الإنجليزية

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مستخلص:

يُنظر إلى تعلم اللغة الإنجليزية غالباً على أنه عملية مملة وغير شيقة، خاصةً للأطفال الذين نشأوا في العصر الرقمي. ومن الطرق الفعالة لزيادة دافعية المتعلمين لدراسة اللغة الإنجليزية استخدام الألعاب الإلكترونية. ومن الأساليب الناجحة استخدام هذه الألعاب لتعزيز الدافعية الذاتية لدى المتعلمين. هدفت هذه الدراسة إلى بحث فعالية لعبة إلكترونية، مثل الكلمات المتقاطعة، في تنمية دافعية الطلاب لتعلم اللغة الإنجليزية. شارك في الدراسة 40 طالباً، واستمرت لمدة ثمانية أسابيع تقريباً. تعلمت المجموعة التجريبية مفردات متعلقة بالطعام والملابس والأثاث من خلال لعب اللعبة الإلكترونية، بينما درست المجموعة الضابطة المفردات نفسها باستخدام الطرق التقليدية. في الأسبوع السادس، أُجري اختبار لاحق باستخدام استبيانات اعتمدت على نسخة مُعدّلة من مقياس (غاردنر، 1988) لقياس دافعية الطلاب. أظهرت النتائج أن المجموعة التجريبية حققت درجات أعلى من المجموعة الضابطة، مما يُشير إلى أن ممارسة اللعبة الإلكترونية ساهمت في رفع دافعتهم لتعلم اللغة الإنجليزية..

الكلمات المفتاحية: الألعاب عبر الانترنت، تعلم اللغة الإنجليزية، الدافعية.

1.0 Introduction

Playing online games is a type of edutainment with the integration of various elements such as the texts, graphic, audio, video and animation. Online game combines the methods of playing simulation and mind tests (Green & McNeese, 2007). The purpose of online game is to provide the students with enjoyment while they are learning so that they can practice effective learning without feeling bored, depending on the Theory of Behaviourism that involves human's behaviour and its relation with stimulation, response and reward. However, the Cognitivism is not excluded wherein students are needed to think of the best strategy in order to achieve the highest score in each game.

Nowadays, teenagers like to spend their time playing online games that are mostly not educational oriented such as Counter Strike and Wolf Team be it at home or cybercafé (Elsayed, 2021). To handle and overcome this situation, the ministry of education encourages teachers to use any suitable online game so as to arouse students' interest in the school lessons (Jayakhantan, 2002). The application of online games

in education is nothing new in the western countries. It had been introduced in America and Europe since the 70s era. Computer games considered as one of the important applications that are widely discussed in the field of education in an article published by Jayakhantan. In this article the author showed that computer games have infinite potential and they could provide an efficient educational experience. (Jayakhantan, 2002).

Some scholars have proved that games can be effective tool for educational purposes especially language learning ((Cordova & Lepper, 1996); (Boudadi & Gutiérrez-Colón, 2020)). The online games started when educators began adding the Internet connectivity to computer games in 1994 to 1995. However, the world of online game started somewhere in 1969.

The origins of crossword puzzles can be traced back to the 19th century, when a British journalist Arthur Wynne, created the first crossword puzzle for a Sunday newspaper in 1913. At first, it was designed as a diamond-shaped grid with simple clues to fill in the white squares and it was called a "word-cross," (Njoroge, Nd-

ung'u, , & Gathigia, 2013). After that, the game gained wide fame and developed into one of the electronic games of our globalized time. In addition, it has become one of the educational and entertaining games used by teachers to develop students' English language skills.

Crossword puzzles come in a variety of forms, including classic puzzles, information puzzles, and numerical puzzles. The Chinese proverb, "Tell me, and I forget; show me, and I remember; involve me, and I learn," exemplifies that learning is more effective when learners are actively involved in constructing knowledge. In other words, interaction and active participation are essential to the success of the learning process.

Accordingly, English as a Second Language (ESL) or Foreign Language (EFL) education specialists emphasize the important role of the teacher in supporting and encouraging students to engage in game-based learning activities. They also emphasize that crossword puzzles are an effective way to enhance learners' motivation and increase their desire to acquire the language. (Celce-Murcia & McIntosh,

1979).

This is supported by a study conducted by (Almadhady, Haji Salam, & Baharum, 2020), in which the researcher proved that it is important to increase motivation of EFL learners by allocating more time and effort to practice self-directed learning outside the classroom by using such facilities as the use of technology in language learning and by playing online games.

2.0 Research Background

English is a compulsory subject in all primary and secondary schools in line with its status as a foreign language in Iraq. The aim of English language teaching is to enable school-leavers to use English in everyday life and work situations as well as to pursue higher studies in the medium of English. At the present time, English is still taught for further studies and for work. However, using new methods is a significant issue to improve English language due its status as being a global language. For educational purposes the role of information and communication technology (ICT) is very important in general and it is used as a tool to improve English Language in particular (Mukhlif

& Challob, 2021).

The English curriculum uses knowledge from topics drawn from current issues to provide the content for learning not only from subject disciplines such as sciences. The immediate surroundings, i.e. the school, town and country are the first things that the learners concern and later progress to issues and concerns outside the country. With Information and Communications Technology, learners will develop their interpersonal skills by sharing in joint activities with other schools through social networking so that they will be ready to go out into the world when they leave the school.

In line with globalization and the Information and Communications Technology era, skills related to Information and Communications Technology are incorporated in the learning outcomes (Li, 2023). These skills such as the Internet resources, the utilization of computer-related activities include the use of multimedia resources and games applications in order to get highly outcomes in learning (Mukhlif M. I., 2022).

(Baroody & Ginsburg, 1990) state that effective teaching will take place

when the students involve themselves in activities which are supportive of the learning itself and at the same time are guided by the teacher.

Generally, all techniques and methods are feasible as long as they are able to assist the students in achieving their objectives been outlined (Dewi, Kultsum , & Armadi, 2025). Game is a teaching method that enables the students to expand their creativity. (Raave, Saks, Pedaste, & Roa, 2024) states five reasons to explain why a teacher needs to utilize technology in their teaching. The use of technology motivates the students, increases the teaching ability, acts as a supporting tool to the co-operative learning, shares information and functions as a problem-solving method that upgrades teacher's productivity and lastly, it is a skill that is so highly demanded in today's borderless information age.

3.0 Problem Statement

In EFL learning environment, the educational curriculum consists of contents and activities that are interrelated with the teaching and learning techniques and methods ((Collins, 1986); (Blane, 1986)). Apart from planning

and implementation of teaching, a focused study on the curriculum itself is necessary in preparing the materials and evaluation of activities as being centralised or school-based (Nurhuda, Setyaningtyas, & Huda, 2023). Hence, it is very important for teachers to arouse the students' interest and awareness of learning English language. Over the years, English teachers have been using the same traditional teacher-centred teaching method in which the learners are listening to the teacher's explanation prior to written-work assigned later. There aren't hardly any varieties in the teaching learning process. The same activities of drillings and monotonous questioning are repeated the whole year. (Rahmanto, Ulum, & Priyopradono, 2020) state that problem will exist if the students lose interest and start feeling bored in a certain subject. This will be an obstacle that makes it difficult for the students to understand the concepts taught in the classroom.

An excellent proficiency level in English language will be a great help in the mastery of other subjects especially those in the science and technology disciplines at the higher learning

level. A graduate with a high level of English proficiency is more likely to be hired in today's competitive job market than one with a low level of English proficiency as suggested by (Mukhlif & Challob, 2021).

Based on the results that were published by schools in many Iraqi governorates, there is a clear decline in the results of the English language compared to other subjects. Therefore, educators and officials are required to make great efforts to raise the level of students in the English language by paying attention to the school curriculum from younger ages and introduce games into their education in order to stimulate their enthusiasm and increase their passion for learning the language. As well as It has become a crucial need in our digitalized age and the increasing needs for mastering the language. Efforts to elevate the standard of English at schools and universities have to be prioritized.

Whatever the situation is, English is an important core subject in school. Teachers are required to teach English for five periods a week in the secondary schools. However, most teachers emphasize the importance of com-

pleting the syllabus within the given schedule regardless of whether their teaching-learning objectives are successfully fulfilled. Therefore, teachers are less likely to involve their students in interactive learning activities let alone interactive multimedia such as online game unless enrol it within the curricula. The issue is how to maintain and enhance students' interest and motivation in learning English.

4.0 Literature Review

As explained earlier, the study is designed to explore the effectiveness of an online game as crossword puzzles in enhancing students' motivation towards learning English language. This section aims to clarify the research variables and concepts. The literature review is structured to cover the main variables and theories such as constructivism, sociocultural theory, direct method, connectivism theory, Mayer cognitive theory in multimedia learning and motivation.

4.1 The use of online games in teaching English

During the last few years, a large base of online game players has appeared due to the explosive growth in

the internet users. (Hopper, Sanford, & H, 2018) stated that millions of people play online game and the number of members was projected to increase in the future.

The using of the online games as a tool in promoting language learning have many advantages as one-to-one mode of teaching and gives for active interaction between the students and the computer, also, students can progress at their own paces. Hence, the students take on the role as active participants in an interactive environment rather than passive recipients of information (Dickinson, 1987)

The use of interactive games has impacted on the learners' mode (Erhel & Jamet, 2013)

(Wood, 2001) claimed the use of learning games as a learning tool and concluded that the traditional media such as textbooks no longer active as game-like formats could be more effective at capturing learners' attention. The young learners tend to favour "edutainment" applications-academics-oriented games (Krasilovsky, 1996).

(Erhel & Jamet, 2013) study indicated that the use of interactive games positively impacts learners' learning

styles. In the same context, (Wood, 2001) explained that using educational games as a teaching tool can be effective, indicating that traditional media, such as textbooks, which lack game-like interactivity, may not engage learners as much. (Krasilovsky, 1996) also demonstrated that young learners tend to prefer educational applications with an entertaining nature, especially those in the form of games geared toward academic goals.

(Al Masri & Al Najjar, 2014) stated that nobody can deny the role of games in teaching and learning vocabulary so that it is very important to choose useful and suitable games in order to achieve the most from vocabulary games. There are many factors that should be taken into consideration like the number of students, proficiency level, cultural context, timing, learning topic, and classroom settings whenever a game conducted to sustain their interest and work.

A qualitative case study conducted through the observation of eleven students aged 6 to 14 by (Karoulis, 2007). In this study, Karoulis focused on the motivational factors of the students and the modality of a game. The find-

ings concluded that all of the pre-teens and teens, aged 12 to 14, were equally conscientious of all modalities and swiftly finished each aim of the game.

4.2 Constructivism and Sociocultural theory

The current focus is on constructivism as a pedagogical approach, whereas traditional education was based on the didactic model of teaching. Constructivism is based on the fundamental principle that knowledge is constructed through interaction and experience, not simply the reproduction of information. In this context, Vygotsky's sociocultural theory asserts that human intelligence is shaped by the culture to which an individual belongs. The process of cognition begins first with social interaction with others and later becomes embodied within the individual at a personal level (Forman & McPhail, 1993).

4.3 Direct Teaching Method

The direct method believed that students learn to understand a language by listening to it in large quantities. The direct association of words and phrases with objects and actions are ways to learn language without the use of native language as the intervening vari-

able (Rivers, 1981).

4.4 Mayer Cognitive theory of multimedia learning

(Mayer, 2001) developed a cognitive theory of multimedia learning, which asserts that the learning process requires learners to go through five interconnected cognitive processes. These processes begin with selecting appropriate words for processing in verbal working memory, followed by selecting appropriate images in visual working memory. Next, the learner organizes the words to construct a verbal mental model and organizes the images to form a visual mental model. In the final stage, the verbal and visual models are integrated and linked to prior knowledge, contributing to a deeper and more coherent understanding of the educational content.

4.5 Connectivism Theory

Connectivism is a learning theory for the digital age. Some principles of connectivism: The integration of cognition and emotion is essential to the meaning-making process, as thinking and emotion interact to influence each other, enhancing the depth of understanding and learning. Learning is based on the principle of connect-

ing different information sources and knowledge nodes. Connecting to an existing knowledge network expands the learner's experience and enhances their ability to acquire knowledge. Learning is no longer limited to humans alone; it can exist in non-human systems and tools, making the ability to search for and access information even more important than simply possessing it. Effective learning requires the continuous maintenance and development of knowledge connections, as diverse perspectives are essential for building deeper and more comprehensive knowledge. Modern learning methods vary, including online courses, email, virtual communities, chats, web searches, mailing lists, and blogs, all of which contribute to supporting continuous learning and enhancing individual and collective knowledge (Guo, Du, & Zheng, 2023).

4.6 Motivation

(Katzeff, 2000) stresses that in learning, the learner must be motivated to learn, so motivation is a critical factor for instructional design. As (Al-Jarf, 2022) added that teachers should encourage the students to share vocabulary games such as crossword puzzles

and word search games to improve vocabulary learning and motivation for students. (Prensky, 2001) defines the key characteristics of (simulation) games as: rules, goals and objectives, outcomes and feedback, conflict (and/or competition, challenge, opposition), interaction, and representation of story. There are many activities which effect on learners' extrinsic rather than intrinsic motivation while intrinsic motivation is highly desirable

(Csikszentmihalyim & Nakamura, 1989) .

Research indicates that relying solely on extrinsic motivation is one of the most serious problems in learning, as it can lead to completely counterproductive results. Learners who are intrinsically motivated tend to persist for longer periods, exert greater effort, use effective learning strategies, and retain important information better. Excessive reliance on extrinsic motivation, on the other hand, typically produces temporary activity that quickly fades and can even lead to a lack of long-term interest in the subject. Therefore, it is important to balance the two types of motivation by enhancing extrinsic motivation with intrinsic motivation

to ensure deeper and more sustainable learning.

5.0 Research objective

In order to obtain the purpose of this study, this research is aimed to achieve the following objective:

- To explore the effectiveness of on-line game in enhancing students' motivation towards learning English.

6.0 Research question

- Is online game effective tool in enhancing students' motivation towards learning English?

7.0 Selection of Participants

Participants for this study were 40 form one of secondary schools in Erbil, Iraq. They are of low proficiency level and they were purposively selected . The selected students were divided into two groups of 20 students each. The control group was taught English using the traditional method whereas the students in the experimental group were taught by using the online game, crossword. Both groups covered the same subject matter, that is vocabulary pertaining to food, clothing, and furniture. The groups received the instruc-

tion for the same amount of time. They were taught by two different English teachers. Both have similar years of teaching experience.

8.0 Research method

The aim of this study is to investigate the effectiveness of online game in enhancing students' motivation towards learning English. True experimental research design is adopted for this study. Questionnaires were chosen to collect the desired data.

Questionnaires were administered to collect quantitative data to look into students' motivation towards learning English. The questionnaires were an adapted version of R.C. Gardner's Attitude/ Motivation Test Battery. There are two parts in the questionnaires. The first part consists of 20 Likert Scale items with four responses, namely Strongly Disagree, Disagree, Agree and Strongly Agree. The second part comprises ten multiple-choice questions. The total score of the questionnaire is 110.

9.0 Data collection

Data collection spread over a period of 8 weeks. Prior to the implementa-

tion of this study, the researcher explained the research objectives, methods and procedures to the teachers who were involved in this research. The researcher also demonstrated how to play the cross word online game to the teachers. Next, the students were randomly assigned to the control group and experimental group. 20 form one students were assigned to the experimental group and the other 20 to the control group.

In the first two weeks, the subjects in the experimental group were asked to explore the cross word online game regularly in the school computer laboratory and during their own leisure. The reason behind such arrangement was to define the students with the online mode. In the third week, students were asked to carry out the online vocabulary exercises. guidance in class and from time to time observed the students' work was provided by the teacher. In the same week the control group was also taught vocabulary pertaining to food, clothing and furniture by another teacher who used the direct teaching method. Both groups were exposed to the teaching learning process for three consecutive weeks. In week 6, the ques-

tionnaires were administered to both control group and experimental group. Data were analysed and reported in week 7 and week 8.

10.0 Data Analysis

The Statistical Package for Social Science was used for data analysis in this study. After entering the scores of all the participants, an independent sample t-test was run to compare the mean scores of the control group and the experimental group. The identification of a significant difference would point to the effectiveness of online

game in enhancing students' motivation towards learning English.

11.0 Findings

The SPSS analysis data were shown in Table 1 and Table 2. The mean score of the experimental group ($M = 88.8$, $S.D. = 10.89$) was higher than that of the control group ($M = 44.15$, $S.D. = 8.25$). Besides, according to the independent sample t-test ($t = -14.613$, $df = 38$, $p = 0.000$), there was a significant difference between the mean scores of the control group and the experimental group.

Group Statistics

groups	N	Mean	Std. Deviation	Std. Error Mean
motivation level control group	20	44.1500	8.25434	1.84573
experimental group	20	88.8000	10.88988	2.43505

Table 1: Group Statistics for Motivation Levels.

Independent Samples Test

	Levene's Test for Equality of Variances		t-test for Equality of Means							
	F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference		
								Lower	Upper	
motivation level	Equal variances assumed	.257	.615	-14.613	38	.000	-44.65000	3.05552	-50.83557	-38.46443
	Equal variances not assumed			-14.613	35.414	.000	-44.65000	3.05552	-50.85044	-38.44956

Table 2: Independent Samples T-Test Table for Motivation Level

12.0 Discussion

This research sets out to answer one question. The data from the findings will be discussed in detail in this section.

Research Question: Is online game effective in enhancing students' motivation towards learning English?

Questionnaires were administered at the end of the study. The scores were encouraging. The mean score of the experimental group was much higher than that of the control group. An independent sample t-test also showed that the difference between the mean scores was significant. In other words, students who learned vocabulary through online game were more motivated to learn English. Hence, the research hypothesis was supported, that is online game is effective in enhancing students' motivation towards learning English. Using online games contains some important characteristics of a good learning environment is one of possible explanation for the increased motivation as outlined by (Gance, 2002). The online game required students to use some problem-solving skills. It also encouraged interaction

among the players. Besides, students were cognitively and actively engaged to explore the game. All these characteristics might have kept the students motivated.

While many studies had investigated the beneficial effects of using games, there have not been many studies that look specifically into the link between using games and motivation towards learning English. The encouraging result of this study will increase teachers' confidence and willingness to incorporate online games into their English lessons.

13.0 Implications

To ensure sustained student motivation and effective learning, it's important for teachers to use stimulating online games that foster a sense of accomplishment. One of the most effective, long-term teaching methods is simulation, which has the potential to overcome the limitations of the traditional model by actively engaging students in a learning process based on experience and practice. (Jääskä, Lehtinen, Kujala, & Kauppila, 2022) .

In terms of extending the impact of online game so as to make it more

effective than traditional learning lessons, teachers need new and developed games, such as simulated tasks as they are more interactive and collaborative. Regarding teachers, their roles should be more of a researcher and facilitator. The role of the teachers should be more of a researcher and facilitator to ensure the effectiveness of bringing the vocabulary games into the classroom. As a researcher, teachers must explore further into the area of information retrieval. Teachers must have the knowledge of lesson planning and the skills necessity to become an effective facilitator and to know how to incorporate online elements into their teaching and learning. Furthermore, if a game adopted for long-term learning, it is important for the teachers to ensure the existence of a means that monitors whether their students play the game regularly and frequently, as well as their learning progress.

14.0 Conclusion

This study has shown that online game is effective in enhancing students' motivation towards learning English. The experimental group showed a higher level of motivation compared

to the control group. Hence, it is high time that English teachers should incorporate online games into their lessons so as to sustain their students' motivation towards learning English. The motivation will increase students propel to attain a higher level of English proficiency which will in turn make them more marketable and employable in future.

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