

Original Article**Enhancing Speaking Proficiency and Terminology Learning Among ESP Learners Through Edutainment Activities***Shiva Grami¹, Azizeh Chalak^{1*}, Hossein Heidari Tabrizi¹*¹English Department, Islamic Azad University, Isfahan (Khorasgan) Branch, Isfahan, Iran

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Abstract

Considering the needs of most English for a Specific Purpose (ESP) learners, speaking proficiency and terminology learning are two challenging objectives of their English learning. This anxiety is boosted when it comes to technical environments because it needs a range of specific vocabulary, resulting in lower scores than expected. Edutainment or the integration of entertainment with education is supposed to be helpful. Regarding a quasi-experimental study, 60 Iranian ESP learners studying nursing were conveniently selected and distributed into experimental (EG) and control (CG) groups. During the intervention phase, participants in the EG were taught the instructional materials based on Edutainment activities ranging from simple crossword puzzles to complex simulative games. Participants in the CG received the same content through mainstream English learning tasks. The instruments included an Oxford Placement Test (OPT), speaking proficiency, and terminology tests. Descriptive and inferential statistics were used to analyze the outcomes. The results indicated that EG participants significantly outperformed CG regarding speaking proficiency and terminology learning. While Edutainment was significantly effective in enhancing the mentioned domains, it was more beneficial in speaking proficiency compared to terminology learning. The outcome may benefit ESP teachers, learners, and curriculum developers considering the integration of education and entertainment.

Keywords: Edutainment, Entertainment, English for a Specific Purpose, Speaking Proficiency, Terminology Learning

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1. Introduction

English for Specific Purposes (ESP) refers to a branch of English language teaching that focuses on providing language instruction tailored to meet the specific needs of learners in particular professional or academic fields. ESP has gained significant attention and importance in Iran in recent years due to the growing demand for English language proficiency in various specialized domains. One of the main reasons for the increasing emphasis on ESP in Iran is the country's expanding international relations and involvement in global markets. As Iran seeks to establish stronger ties with other countries, there is a growing need for professionals with strong English language skills in fields such as business, engineering, medicine, and tourism. ESP programs aim to equip learners with the linguistic and communicative competence required to excel in their chosen professions.

In Iran, ESP courses are typically offered at universities and language institutes. These programs are designed to cater to the specific language needs of students studying various disciplines. For example, students pursuing degrees in engineering may take ESP courses that focus on technical vocabulary, reading scientific articles, writing reports, and delivering presentations related to their field of study. Similarly, medical students may receive instruction in medical terminology, patient-doctor communication skills, and academic writing specific to the medical profession. The COVID-19 pandemic revealed the critical importance of English proficiency among the medical staff, including Medical doctors and nurses, in exchanging information, grasping up-to-date experiences from their peers worldwide, and even reading or reflecting on their experiments in different resources such as websites or journals.

Edutainment is a new style of learning and teaching recognized as a beneficial style for learners to reduce the level of boredom, anxiety, or distraction and increase the amount of attention allotted to the class, the level of motivation, and the extent of emotional pleasure of the students; however, the barriers remain to achieve all the benefits that education with entertainment may have (Egenfeldt-Nielsen, 2011). Some researchers believe that Edutainment is a rote learning technique and can only be helpful for lower-order thinkers (Krathwohl, 2002; Sahin et al., 2020; Singh & Khanna, 2014). On the other hand, some believed that having less focus on drills and substitution practice brings new energy to the classroom. In other words, substituting boring activities with serious entertainment and

games will promote deep learning (Abdul Ghani et al., 2022; Charsky, 2010; Chen et al., 2019).

Rocha and Braga (2020) mentioned that participation in game-based learning increases learners' interest, vocabulary retention, and speaking proficiency because learners use their learned knowledge in the classroom and practice it in a virtual world they like. Besides, Edutainment increases the learners' language encounter; they like to play games and watch movies, so they practice it willingly outside class time (Rocha & Braga, 2020). While the terms Edutainment and Infotainment are interchangeably used, both aim to educate and entertain audiences but differ in their primary focus. Edutainment places a stronger emphasis on education and learning outcomes while still providing an entertaining experience. On the other hand, infotainment prioritizes entertainment value over educational content, often using information as a means to engage the audience.

From one point of view, researchers believe that traditional language teaching methods, especially in ESP, should be blamed as most of them are not in line with the interests and lifestyles of language learners (Bozdogan & Karlidag, 2013). From another point of view, Iranian students have passed years of mandatory English classes, but they still have many language-associated shortcomings in university (Serraj & Noordin, 2013). Edutainment can enhance efficient and productive learning. Language learners must not feel bored to be able to learn and internalize the material. Therefore, it is essential to implement modern platforms to engage ESP learners, primarily digital native ones, to improve their speaking skills and technical vocabularies (Ahmed et al., 2022; Lolita et al., 2020). This study focused on the Edutainment activities on speaking proficiency and terminology learning among ESP learners in nursing.

Literature Review

This study is supported by (a) constructivism, (b) connectivism, (c) cognitive load theory, and (d) multimedia learning theory from the theoretical point of view. Constructivism is a learning theory that emphasizes learners' active construction of knowledge. In an e-learning context, constructivism suggests that learners should be actively engaged in meaningful activities that promote knowledge construction rather than passive recipients of information. E-learning platforms can incorporate interactive elements such as simulations, problem-

solving activities, and collaborative projects to foster constructivist learning experiences. Connectivism is a learning theory focusing on the importance of networks and connections. In e-learning environments, connectivism suggests that learners should be encouraged to build networks and tap into collective knowledge sources available on the internet. Social media platforms, discussion forums, and online communities can facilitate connectivist learning by enabling learners to engage with peers, experts, and resources beyond traditional classroom boundaries.

Cognitive load theory explores how the cognitive load imposed on learners' working memory affects their ability to process information effectively. In e-learning, this theory suggests that instructional designers should consider the complexity of the learning materials and activities to optimize learning outcomes. By presenting information in a structured and organized manner, minimizing extraneous cognitive load, and providing appropriate scaffolding, e-learning platforms can enhance learners' cognitive processing and retention. Multimedia learning theory explores how the design of multimedia materials affects learning outcomes. In e-learning, this theory suggests that instructional designers should consider using multimedia elements such as text, images, audio, video, and animations to present information more engaging and effectively. By leveraging different presentation modalities, e-learning platforms can cater to diverse learner preferences and enhance knowledge acquisition. Edutainment is not a new approach in education as behaviorists and cognitivists in the 1970s focused on having games and plays in classrooms, but recently, it gained tremendous attention because these days, having fun and being creative have become essential factors of any type of education. It has been described as a mixture of plenty of entertaining activities within the context of education (Aksakal, 2015; Buckingham & Scanlon, 2000). Many researchers believe that learners find their initiative by having a fun and exciting learning environment (Aguilar-Castillo et al., 2021). The golden goal of learning a language is to communicate with others, and one of the most essential skills in successful communication is speaking.

Kapp (2012) mentioned that games drastically reduce foreign language speaking anxiety because, in games, learners focus on the purpose of the game, which is to win and forget about being judged by others. They learn to interact with other players and try to be more accurate to reach their goals faster. Vocabulary is crucial in developing EFL/ESL/ESP learners' proficiency levels. It is also vital to improve language skills (Nation, 2011).

Researchers proved that the small size of vocabulary failed language learning. These learners tend to have severe problems with both productive and receptive skills (Aguiar-Castillo et al., 2021; Aksakal, 2015; Nation, 2011). A lack of vocabulary resulted in problems in conveying messages. Muntean (2011) explained that engaging students in learning does not always need complex technology. From her point of view, one can bring joy to the classrooms using persuasive technology by considering three main elements: motivation, ability, and triggers. She worked exclusively on e-learning but made a faded border between games, serious games, or entertainment. Yang et al. (2020) worked on an interdisciplinary project between computer science and language learning. They investigated the effects of digital storytelling on students' English speaking. They studied 54 teenagers who took part in both English and computer classes. During eight weeks of investigation, learners in the experimental group outperformed those in the control group regarding oral fluency and accuracy.

Not limited to digital entertainment, Norhaidi et al. (2019) investigated the effects of a card game named Mafia on the speaking of 137 Malaysian undergraduate students. Mafia is a game that needs two groups of players: mafias and innocents. In the game, the player's role is secret, and they try to convince others to eliminate someone who thinks they are Mafia. The results of their study suggest that Mafia helped the learners to increase speaking fluency and accuracy. Similarly, Grimshaw et al. (2016) investigated the effects of a digital serious game called Spaceteam ESL on high beginner EFL learners' oral fluency. In this game, each player pilots a spaceship, but the navigation is in the hands of the others. To move the spaceship, they need to give directions to others and receive instructions from their mate to navigate their mate's spaceship. They found that games, including Spaceteam ESL, significantly improve the oral fluency of EFL learners. Even 15 minutes of games in each play have drastically affected the storytelling and oral fluency of the learners in that the experimental group participants with 15 minutes of treatment in each session for six weeks significantly outperformed those in the control group.

Ng et al. (2022) investigated the professional game player and the effects of the different games on their vocabulary size, as well as, the different strategies they used to learn the game-related vocabulary. The results of their study illustrated that gamers learn the intended vocabulary better than non-gamers. They also find that gamers use metacognitive, cognitive, and memory activation strategies to learn vocabulary. They mentioned that the

storyline of the game, freedom of learning outside of the classroom context, social interaction with online peers, and collaboration with teammates are the factors that make gaming a helpful medium for language learning. Thiagarajah et al. (2022) studied 60 pre-intermediate high school EFL learners to shed light on the effect of Kahoot!, a game-based learning platform, on their vocabulary retention. They found that those in the experimental group not only outperformed the control group regarding their score on vocabulary tests but they also expressed a more positive attitude toward their learning process.

To the researchers' best knowledge, there has been less previous evidence for the effect of Edutainment on ESP learners' speaking and vocabulary in Iran and at the intermediate level. Therefore, the need to scrutinize the effect of Edutainment on Iranian intermediate ESP learners' speaking proficiency and terminology learning seemed crucial. Therefore, this research aimed to check the possible effect of some Edutainment activities on Iranian intermediate ESP learners' speaking proficiency and terminology learning. According to the objectives of this study, the following research questions were formulated.

1. Do Edutainment activities influence ESP learners' speaking proficiency?
2. Do Edutainment activities influence ESP learners' terminology learning?

Methodology

3.1. Design and Context of the Study

This study followed a quasi-experimental research design that allows researchers to establish causal relationships and make inferences about cause and effect. The participants, who were ESP learners studying nursing and classified in terms of their general English proficiency according to the results of the Quick Placement Test (OPT), were randomly divided into two groups, namely the Experimental Group (EG) and the Control Group (CG). The participants in the EG were taught based on Edutainment, and the ones in the CG underwent mainstream language-learning tasks to learn the instructional materials in focus. The study was conducted during the fall and winter academic semesters of 2022-2023 at the nursing department of medicine faculty in the Islamic Azad University of Isfhan (Khorasgan).

3.2. Participants

Considering (a) the results of the OPT, (b) the dropped-out rate of the participants, and (c) having homogeneous groups of participants in terms of their population across EG and CG, 60 intermediate ESP learners who were freshmen in nursing studying English for Nursing Students as one of their technical syllabus courses in the Islamic Azad University, Isfahan (Khorasgan) Branch were conveniently selected. Following the national curriculum plan for nursing bachelors, they must take part in ESP courses for two hours a week. The participants' mother tongue was Persian, and they had previous experience learning general English in different language institutes. They were divided into an experimental group (N=30) and a control group (N=30). The participants' ages ranged between 19 and 21, and they were informed and agreed to participate in this study to avoid any nonconformity with ethical guidelines in social science research.

Table 1

Characteristics of the Participants

No. of participants	60
Proficiency level	Intermediate
Gender	Males and females
Age	19-21
Native language	Persian
Academic major	Nursing
Location	IAU, Isfahan branch
Academic Years	2022-2023

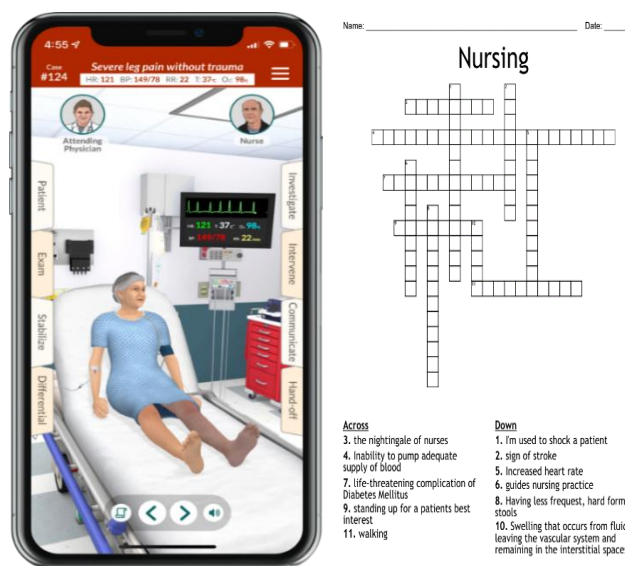
Two Ph.D. candidates in Teaching English as a Foreign Language (TEFL) were selected as the raters to evaluate the participants' performance in the pretest and posttest phases. Both of them had more than ten years of experience in teaching English, and their age ranged between 30 to 35. Table 1 indicates the characteristics of the participants.

3.3.Materials

The primary materials for teaching the course were *English for Nursing Students* by Khaki et al. (2011) and *Oxford English for Careers: Nursing 1* by Grice and Greenan (2007). The first and second chapters of each book were used as the textbook to teach ESP learners. Both groups studied the same chapters and had an equal amount of exposure to the materials. An educational game named FullCode in line with the content of the instructional materials was used for practicing among the participants in the EG. FullCode is a professional Android and iOS application that offers a unique gaming experience. This application is designed to simulate a realistic 3D emergency room environment where players are challenged with complex clinical cases. It is primarily targeted toward medical, paramedical, and nursing students, providing them with an interactive platform to enhance their skills and knowledge. To meet the equal amount of exposure and practice, those in the control group did the exercise of their students' book and their workbooks. Extra substitution drills were also used to practice terminologies. Different photos were also shown to them to talk about it and practice speaking. The other application used for practicing the content of the instructional materials was crossword puzzles that required participants to fully answer in a minimum time to win the competition. A similar puzzle was used in the control group but not in the form of competition or play to win. Figure 1 demonstrates screenshots of the two mentioned applications.

Figure 1

Screenshots of FullCode Serious Game and Crossword Puzzle



The vodcast of Dr. Mike Varshavsky, a medical comedian physician, uploaded to his YouTube Channel, @doctormike, was used in the experimental group. He teaches medical procedures using fun games, viral challenges, and idiotic betting; however, in the control group, the videos from their course book, *Oxford English for Careers: Nursing 1* (Grice & Greenan, 2007), were used.

3.4. Instruments

Three instruments were used in this study, including OPT to examine participants' levels of general English proficiency, a speaking proficiency to evaluate participants' speaking skills, and a nursing terminology test to investigate participants' breadth and depth of technical vocabulary knowledge. Certain random items were shuffled in the instruments in the posttest phase to avoid pretest sensitization.

3.4.1. Oxford Placement Test (OPT) – Pretest

The OPT is divided into two main parts: (a) the use of English, including grammar, vocabulary, and reading, and (b) listening, in which there are five short dialogues followed by five more extended dialogues accompanied by five short monologues. According to the scoring rubric of the OPT, the possible scores ranged from 0-120 in which English learners who obtain a score below ten are classified as starters, the ones with a score between 11 and 40 are categorized as elementary English learners, the ones who achieve 41-60 are determined as intermediate learners of English. Those who score 61-80 are upper-intermediate English learners, those who obtain a score between 81-100 are classified as advanced learners of English, and those with a score of 101-120 are known as proficient English learners. According to Common European Framework of Reference (CEFR), the nominal values for the obtained OPT scores include A1.1 (1-10), A 1.2 (11-20), A 2.1 (21-30), A 2.2 (31-40), B 1.1 (41-50), B 1.2 (51-60), B 2.1 (61-70), B 2.2 (71-80), C 1.1 (81-90), C 1.2 (91-100), C 2.1 (101-110), and C 2.2 (111-120). The approximate time to fill out the test is about 60 minutes.

3.4.2. Speaking Proficiency Test –Pretest and Posttest

Before and after the treatment, both control and experimental groups received a test to check the students' speaking proficiency. The test in each phase (i.e., pretest and posttest) took long for 10 minutes. They were given a photo with a brief history of a patient. They should discuss the case, the needed procedures, and/or relevant memories or experiences they had previously. The second card was about the status of nurses within society concerning their social and economic rank. The content of the questions was excerpted from their books. Both the pretest and posttest were piloted, and their reliability was calculated as 0.70 and 0.75, respectively. Experts have checked the content validity of the questions. The pretest and posttests used different sets of questions, and they were not the same but used the same difficulty level. The results of the pilot tests of graduated students showed that the difficulty level for both tests lies between 0.80 and 0.85, which was acceptable because the questions did not intend to discriminate; they instead intended to check the mastery of the content.

In their speaking exam sessions, students were required to use their lexical and grammatical knowledge. Because they only met two hours a week, their pronunciation and fluency were not the focus of the study. To score their speaking, regarding the limitations, the modified version of the IELTS rubric of the speaking test has been used to check both the pretest and posttest. The IELTS speaking rubric contains four criteria: fluency and coherence, lexical resources, grammatical range and accuracy, and pronunciation. Because the accuracy of their speaking as nursing students was the focus of the study, only two criteria of the rubrics were used to rate their speaking. Finally, their band scores of 8 proportionated to 20. A modified rubric had been piloted previously, and its reliability was reported as 0.81.

3.4.3. Nursing Terminology Test – Pretest and Posttest

To evaluate the participants' knowledge of specific terms for nursing, a test was created using the course material. Due to certain limitations, standard vocabulary tests could not be used, so a researcher-made test was developed specifically for the nursing students studying English course at the university. Both pretest and posttest were administered to assess the participants' knowledge of specific terms in both control and experimental groups. Twenty multiple-choice items were selected from the *English for nursing students* (Khaki et al.,

2011) and *Oxford English for careers: Nursing 1* (Grice & Greenan, 2007) as test items. These tests were previously piloted and found to have a reliability score of 0.80 and 0.84, respectively. The pilot tests conducted on graduating students revealed that the difficulty level for both tests falls within the range of 0.780 to 0.83. This level is considered acceptable because the questions were not designed to be discriminatory but rather to assess the student's level of content mastery.

3.5. Treatment

Different entertainment was used to teach different parts. To teach the vocabulary, mnemonic methods such as keyword techniques, Quizlet, FullCode, and crossword puzzles were used. To practice speaking storytelling and role-playing FullCode Scenarios were conducted. TV shows, TED talks, movies, music, and stories were also used. The tasks and homework that the learners had to fulfill also benefited from entertainment. FullCode is a game designed to teach the process of nursing and, to the specific, resuscitation. Within the game, there was a head nurse, doctors of different specialties, patients (conscious or unconscious), and patients' relatives. The player had the role of an attending nurse who ordered and/or delivered medicines, did CPR, and asked for more information, and contacts to get a consultation. During a role-play, different students accepted different roles and replayed the game with loud voices. In crossword puzzles, they need to read the statements and find suitable words.

3.6. Data Collection Procedure

Four classes studying at the intermediate level at the Islamic Azad University of Isfahan, Iran were selected and randomly divided into a control group and an experimental group. After conducting the pretest, the experimental group received their relevant instruction. Then all the learners took part in the posttest. The experiment lasted for 3 months. While learners in the control group attended their normal classes, learners in the experimental group received their specially designed treatment. They had 16 ninety-minute sessions, one session a week. The learners in both groups were required to study 2 chapters of their books, watch movies, and do the exercises. In each session, they had to speak for about 20 minutes about the content of the day. They read the reading part for 30 minutes

focusing on the specific terms they encountered. They had 10 minutes of grammar lessons and the rest of the class was for practicing and exercising the newly learned material.

Following the introduction speech about the project in the first session, the instructor conducted a QOPT test and excluded one standard deviation below and above the mean score to make the homogenous groups suitable for the study. Afterward, she administered a pretest for both groups as part of the course introduction. This assessment aimed to gather a comprehensive understanding of students' knowledge of nursing special terms and their speaking accuracy in both groups. These results were utilized for future analysis and comparison at the end of the course. Learners' speaking was scored and checked using a reliable rubric. Their vocabulary knowledge has also been checked and scored to report the means, SD, etc. To see if there is any significant difference between the effect of Edutainment and the effect of the academic style of teaching on learners' speaking and vocabulary, the data were analyzed through an ANOVA and analysis of covariance. Finally, the participants were interviewed, and their attitudes toward Edutainment were coded; the frequency of the coded answers was counted, and the percentages were calculated.

3.7.Data Analysis Procedure

The statistical program SPSS analyzed the data in two stages: descriptive and inferential. The mean, variance, and standard deviation, along with a few other minor statistical parameters, were reported during the descriptive phase to shed light on the homogeneity of the sample. Levene Test was used to check the equality of the variances of all groups in the pretest and posttest phases. The tests revealed a normal distribution. Due to the independence of the groups, Analysis of Variance (ANOVA) was used to determine whether there was a statistically significant difference between the groups' scores from the pretest to the posttest.

Results

To find the effects of Edutainment on nursing students' vocabulary gain and speaking accuracy, one-way ANOVA has been used to analyze the scores obtained from the pretest and posttest of experimental and control groups. Before the inferential analysis, the homogeneity equality of groups was checked. Table 1 shows the associated results.

Table 1.

Test of Homogeneity of Variances

	Levene Statistic	df1	df2	Sig.
Pre-terminology	.472	1	58	.495
Post-terminology	7.799	1	58	.007
Pre-speaking	.697	1	58	.407
Post-speaking	.854	1	58	.359

According to Table 1, the test of homogeneity of variances showed that the group's scores on tests were normally distributed, $p > 0.05$ in any case. Table 2 indicates the descriptive statistics.

Table 2.

Descriptive Analysis of the Groups

		Mea	Std.	95% Confidence Interval for		Mi	Ma		
		N	n	Deviation	Mean	n	x		
				Lower Bound	Upper Bound				
Pre-terminology	CG	30	3	14.0	2.45	13.17	15.00	10	19
	EG	30	3	14.3	2.23	13.47	15.14	10	19
	Tot al	60	6	14.2	2.33	13.59	14.80	10	19
Post-terminology	CG	30	3	14.5	2.50	13.63	15.50	10	19
	EG	30	3	15.7	1.45	15.15	16.24	14	20

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	Tot	6						
	al	0	15.1	2.10	14.58	15.67	10	20
Pre-speaking	CG	3	14.9	2.04	14.15	15.68	12	18
		0						
	EG	3	14.5	1.74	13.89	15.20	11	18
		0						
	Tot	6	14.7	1.89	14.24	15.22	11	18
	al	0						
Post-speaking	CG	3	15.2	2.00	14.48	15.98	12	18
		0						
	EG	3	17.3	1.72	16.73	18.02	13	20
		0						
	Tot	6	16.3	2.14	15.75	16.86	12	20
	al	0						

Table 2 shows descriptive parameters of the experimental and control groups' scores on the pretest and posttest of vocabulary and speaking. It is crystal clear that the mean scores of the experimental groups have drastically improved from the pretest to the posttest; however, control groups have also observed a minor improvement in their scores. The table also illustrated that experimental groups performed better in the posttest of speaking rather than vocabulary; the same is true for the control group. Table 3 indicates the results of the ANOVA.

Table 3.

ANOVA Summary Table

		Sum of		Mean		
		Squares	<i>df</i>	Square	<i>F</i>	<i>Sig.</i>
Pre-terminology	Between Groups	.704	1	.704	.127	.722
	Within Groups	320.5	58	5.52		
	Total	321.2	59			
Post-terminology	Between Groups	19.2	1	19.26	4.59	.036
	Within Groups	243.1	58	4.19		
	Total	262.4	59			
Pre-speaking	Between Groups	2.01	1	2.01	.556	.459
	Within Groups	210.2	58	3.62		
	Total	212.2	59			
Post-speaking	Between Groups	69.3	1	69.33	19.83	.000
	Within Groups	202.70	58	3.49		
	Total	272.04	59			

As seen in Table 3, in the results of the one-way analysis of variance, the ANOVA was significant, $F(1,58) = 4.595$, $p = .036$ and $F(1,58) = 19.839$, $p = .000$. The p -value less than .05, showed that the difference between pretest and posttest in vocabulary test is significant. Table 4 presents the results of the between-subjects effects.

Table 4.

Tests of Between-Subjects Effects

Source	Dependent Variable	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	Pre-terminology	.704 ^a	1	.704	.127	.722
	Post-terminology	19.267 ^b	1	19.267	4.595	.036
	Pre-speaking	2.017 ^c	1	2.017	.556	.459
	Post-speaking	69.337 ^d	1	69.337	19.839	.000
Intercept	Pre-terminology	12098.400	1	12098.400	2189.272	.000
	Post-terminology	13741.067	1	13741.067	3277.513	.000
	Pre-speaking	13024.267	1	13024.267	3593.471	.000
	Post-speaking	15957.704	1	15957.704	4565.904	.000
Groups	Pre-terminology	.704	1	.704	.127	.722
	Post-terminology	19.267	1	19.267	4.595	.036
	Pre-speaking	2.017	1	2.017	.556	.459
	Post-speaking	69.338	1	69.338	19.839	.000
Error	Pre-terminology	320.521	58	5.526		
	Post-terminology	243.167	58	4.193		
	Pre-speaking	210.217	58	3.624		
	Post-speaking	202.708	58	3.495		
Total	Pre-terminology	12419.625	60			
	Post-terminology	14003.500	60			
	Pre-speaking	13236.500	60			
	Post-speaking	16229.750	60			
Corrected Total	Pre-terminology	321.225	59			

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Pot-terminology	262.433	59
Pre-speaking	212.233	59
Post-speaking	272.046	59

- a. R Squared = .002 (Adjusted R Squared = -.015)
 - b. R Squared = .073 (Adjusted R Squared = .057)
 - c. R Squared = .010 (Adjusted R Squared = -.008)
 - d. R Squared = .255 (Adjusted R Squared = .242)
-

Considering $p < 0.05$, Table 4 shows a significant difference between the performances of the groups on the pretest and the posttest of vocabulary ($sig.=.036$) and speaking ($sig.=.000$). It also shows that the student's scores on the speaking test significantly outperformed their scores on vocabulary.

Discussion

The results of the data analysis showed that there was a difference between the performances of the groups on the pretest and posttest. That is, the students in the experimental groups who enjoyed edutainment to learn and practice language significantly outperformed the control group on the posttests. Looking at the mean scores of vocabulary and speaking in the pretest and posttest in both experimental and control groups, one can understand that the results of the current study suggest that teaching English vocabulary (English for nursing students) and speaking through edutainment could help Iranian nursing students to learn specific vocabulary more easily and speak more technically and more fluently regarding their major.

From the analysis of the collected data, it is found that the mean scores of the experimental groups in vocabulary (15.70) and speaking (17.38) were higher than the mean scores of the control groups 14.56 and 15.23 respectively, and the sig. value less than .05 proved that the differences between EG and CG were statistically significant. This indicates that the achievement of the experimental groups both in vocabulary and speaking was better than that of the control groups. Looking at these data, it has been clear that edutainment had

positive effects on the learning process. Although students in the control group also improved from the pretest to the posttest, tables illustrated that those learners who were taught Nursing English using edutainment were more successful than those who used academic styles.

According to what the study came up with in the last sections, it could be mentioned that those who were taught using edutainment were better than those who benefited from academic style (i.e., CG) in their speaking. Therefore, the results provided a statistically significant positive answer to the first research question which concerned the effects of edutainment on nursing students speaking accuracy. The outcomes showed that edutainment helped students to be more fluent and accurate speakers. This does not mean that teaching speaking via academic style was a waste of time or it had negative effects on nursing EFL students, however, it promoted the fact that entertainment penetration to education could boost the learning process and help students to learn, perceive, and produce the English language in specific context without mental barriers such as speaking anxiety or forgetting sentences because of stress, lack of experiences, or anxieties. These results support the findings of Grimshaw et al. (2016), Kapp (2012), Norhaidi et al. (2019), Thiagarajah et al. (2022), and Yang et al. (2020) who proved that if games, serious games, and entertainments integrated with education and context of learning, improvement in learners/students English speaking accuracy could be observed.

Data also revealed that edutainment helped nursing students of English as a foreign language in the edutainment group acquire technical English vocabulary better than those in the control group because they learned it while they used it and had fun with it. They learned how to use these terms and vocabularies in specific contexts (i.e., hospital) because they practiced it via different scenarios of games, role plays, vodcasts, datacast and so on which rejected the second null hypothesis. Numerous researchers in their studies supported the highly effective role of edutainment in vocabulary development (Bermejo et al., 2023). The results are in line with several previous researchers (e.g., Muntean, 2011; Nation & Nation, 2001; Yang et al., 2020) who believed integrating entertainment and games with the new vocabulary in technical contexts reduced mental barriers to learning and, therefore, promoted and fostered learning.

From the findings of this study, it can be inferred that entertainment and gaming penetration into the educational context not only affect learning processes but also have positive effects on concentration and shyness control. Having more sentences to utter, being more fluent, speaking more accurately, using better vocabulary, and performing better in stressful situations were a few examples that approved edutainment had positive effects on language learning by reducing mental barriers. In other words, by applying games and entertainment, students can use their brain more efficiently which leads to better and stronger learning that project itself into better language usage.

Conclusion

The role of Edutainment in making a stress-free and positive language learning environment is significant enough that no one can underestimate it. The results of the current paper revealed that using Edutainment improved students' skills in speaking and significantly developed their terminology learning. Edutainment impressively affected the foreign language learning process, especially in this study, with ESP in focus. The results of this study indicated that using Edutainment in the learning environment to build up students' terminology and speaking decreased their learning and speaking anxiety and increased their willingness to be active in class. In addition, increasing the time of being engaged improved their focus and promoted deep learning rather than rote learning.

Edutainment is not just computer-based games and plays; it includes various activities, board games, card games, role plays, and so on. Learners are exposed to numerous entertaining programs, from a simple crossword puzzle to a complicated simulation of an emergency room, to improve their different skills and subskills. Therefore, this study may have implications for language learning institutes with different socioeconomic statuses. It also may have implications for EFL and ESP teachers of different age ranges and cultures. Moreover, it can have implications for material and curriculum developers to integrate entertainment and games with educational contexts and environments. Just like any other research, this study faced some shortcomings; it is a small-scale quasi-experiment that only instructed for a limited time; therefore, the results are not entirely generalizable. In addition, this is a short-term study; thus, the long-term effects of Edutainment on the learners' scores, learning, emotions, and attention were not examined, which could be a good topic for further

research. The opinions expressed in this study are the author's own and do not reflect the viewpoint of any university, institute, or governmental state.

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