

Roles of Edutainment in Teaching Vocabulary: Exploring the Perspectives of University EFL Instructors

Hayat Rasheed Alamri Suha Mohammed Alhazmi
College of Education, Taibah University, PO box 42374, Madinah 4445, Saudi Arabia
* E-mail of the corresponding author: hramri@taibahu.edu.sa

Abstract

This quantitative study aims to explore EFL instructors' perspectives on the roles of edutainment in teaching vocabulary concerning students' cognitive, psychological, and social development. Therefore, the researchers developed a questionnaire to measure Saudi EFL university instructors' perspectives on the roles of edutainment in teaching vocabulary. Participants were asked to rank their responses based on a 5-point Likert scale. The sample consists of 91 EFL instructors in Saudi universities during the 2020 and 2021 academic years. Results indicated that edutainment contributes to vocabulary learning as most university EFL instructors use edutainment in their classes. However, not all of them are using it in teaching vocabulary. Generally, EFL instructors favored the edutainment role in developing students' psychological aspects over the other dimensions. EFL instructors extremely valued the crucial role of edutainment on students' attitudes, critical thinking skills, and communication while learning vocabulary. Likewise, EFL instructors appraised the essential role of edutainment on students' creativity, motivation, and satisfaction. On the other hand, EFL instructors moderately valued the role of edutainment on students' comprehension and collaboration while learning vocabulary. The study concludes with some recommendations and suggestions for further research.

Keywords: Edutainment, vocabulary learning strategies (VLSs), cognitive, psychological, and social development

DOI: 10.7176/RHSS/12-12-05

Publication date: June 30th 2022

1. Introduction

Nowadays, many students who demonstrate a high degree of technological literacy are eager to explore the extensive range of applications accessible on their portable computers, mobile phones, and tablets (Niño, 2015). Therefore, the rise in literacy and recent technological advancements have resulted in the spread of integrating technology into education (Hashim, 2018).

With no exception, technology has made its change in language teaching and learning. The invention of technology could provide learners with sufficient exposure to the language (Hazarika, 2017) and offer teachers e-content to promote an active learning environment and captivate learners' attention (Parvin & Salam, 2018).

Since the 1980s, technological advancements have directly impacted English language teaching (ELT). For example, with increased internet access, instructors and learners can access multiple online language learning materials, participate in online communities, and create specific e-content (Dudeny & Hockly, 2012).

According to Alqarni et al. (2019), when EFL students feel enthusiastic about utilizing technology to help them learn English, it will enhance teachers' efforts to establish a better language environment. Alqahtani (2019) pointed out that using visual, auditory, and animated materials through computer devices and mobile phone applications has a vital role in the teaching-learning process. Dudeny and Hockly (2012) argued that the teacher's role has remained consistent despite these changes. For example, they have to direct students in the language learning process and provide appropriate and up-to-date online learning resources.

On the other hand, the abundance of e-materials and continuous evolution of technology often cause some challenges to teachers in emerging them in EFL classrooms. These challenges may vary due to insufficient technological literacy, ill-equipped classrooms, and inappropriate e-resources and materials (Hermagustiana & Rusmawaty, 2018). Accordingly, EFL teachers' knowledge and familiarity with high-tech evolutions are crucial for employing technology effectively in teaching all language skills and aspects (Alqahtani, 2019).

As a vital language aspect, vocabulary is considered the key to learning English because of its fundamental role in developing the four language skills, i.e., reading, writing, listening, and speaking, besides developing EFL learners' language competence (Alqahtani, 2015; Ediger, 1998). Alqahtani (2015) defined vocabulary as "the total number of words that are needed to communicate ideas and express the speakers' meaning" (p.25). Hence, this set of words takes different forms and allows learners to produce linguistically comprehensive language to communicate and transmit knowledge.

Allen (1983) found that teaching vocabulary is linguistically complicated. For instance, learners would be unable to comprehend the grammatical structure if they could not figure out the meaning of the words in their given context. Likewise, according to Ediger (1998) and Rabab'ah (2003), the lack of sufficient vocabulary impedes learners from understanding reading materials, expressing their ideas and opinions, and engaging in

meaningful conversations. Besides, Kacani and Cyfeku (2015) stated that many teachers are challenged to teach new terminology in a foreign language classroom since a comprehensive understanding of a word necessitates considerably more than merely recognizing or explaining its meaning. Instead, it requires studying its form, meaning, and grammatical use in different contexts.

Thus, vocabulary is possibly developed via different learning strategies because it can be a stepping stone to higher-level language usage, allowing the student to gain fluency more quickly.

Importance of vocabulary learning strategies (VLSs)

Vocabulary learning strategies (VLSs) are essential for vocabulary learning. They trigger explicit knowledge and meet students' academic demands (Alshammari, 2020), including making conscious efforts to detect new lexical words, selective attention, context-based inferencing, and storing information in long-term memory. For example, Takac (2009) stated that second language (L2) vocabulary can be acquired through exposure to various contexts and proper VLSs such as goal-directed planning, explicit learning, social interaction, and psychomotor tactics and activities.

Groundar (2019) reported that EFL learners who completed a language program indicated that repetition, reading, guessing, dictionary, translation, and note-taking were the most common and preferred VLSs.

Ali (2020) found that Saudi undergraduate EFL learners mainly used the guessing word meaning and social interaction strategies to figure out the meanings of new vocabulary. According to Mirioglu (2020), Turkish EFL learners valued the importance and application of some cognitive, determination, and metacognitive VLSs that were deemed most important on a larger scale.

In short, far from integrating technology, the literature review reported many stimulating VLSs such as roughly exposure to various language contexts, repetition, reading, word-guessing, dictionaries, translation, note-taking, and social interaction tactics and activities.

Edutainment method in teaching vocabulary

EFL teachers widely held views towards integrating technology into teaching, such as visual, audio, and video materials to enrich learners' vocabulary (Hermagustiana & Rusmawaty, 2018). When teachers use technology-based methods, they usually educate and entertain learners. They attract learners' attention in enjoyable learning environments. By merging "education" and "entertainment," teachers teach via edutainment. Colace et al. (2006) illustrated that the edutainment method could be delivered via various technological tools such as video games, television programs, computer devices, and multimedia. More recently, Alhajaji et al. (2020) demonstrated that the edutainment method could be presented through social media platforms like Twitter, Facebook, YouTube, and WhatsApp.

Hence, according to Aksakal (2015), Colace et al. (2006), and Wu et al. (2011), the primary purpose of edutainment is to provide knowledge with creativity to prompt learners' participation in the educational experience. Besides, it breaks the cycle of traditional teaching and offers dynamic communication and interaction.

Existing research (Abdalla, 2015; Walldén & Soronen, 2004) recognizes the critical role of edutainment in teaching and learning vocabulary. These studies reported that edutainment develops vocabulary learning, retention, learners' academic achievements, motivation, self-confidence, and communication. Nonetheless, using edutainment might have concerns like drifting learners away from real life into the artificial world. Likewise, it may impact the learning process negatively if teachers do not consider its relation to the topic, suitability for the cultural context, (3) learners' level, (4) number of students in a classroom, (5) the classroom settings, and timing.

Several other studies investigating using edutainment in vocabulary learning have been carried out. For example, Zin and Zain (2010) have investigated the impact of edutainment games on students' language achievements. The participants were 60 Malaysian EFL students. The results revealed that students demonstrated positive responses to using the game software. They reported that using the game increased their language learning, facilitated the learning process, and encouraged them to attend English classes.

Čepon (2013) investigated the impact of using videos in EFL classrooms on vocabulary, grammar, reading, and writing. The participants were 77 Slovenian EFL students. The overall results showed that using videos significantly affected vocabulary learning, writing, reading, and grammar. Furthermore, it reduces students' anxiety.

Boulaid and Moubtassime (2019) indicated that using the Kahoot application helps boost Moroccan learners' vocabulary richness and contributes to practicing language skills, mainly writing and speaking.

Yürük (2019) highlighted EFL students' perceptions of the roles of Kahoot as supplementary material in EFL classrooms. The sample was 15 Turkish female and male undergraduate students. The results showed that EFL students reported positive perceptions of the roles of Kahoot. They pointed out that Kahoot increased their motivation, interaction, and cooperation and enhanced language performance and participation.

Tsai (2020) investigated the differences in Taiwanese students' English vocabulary learning performance

and instructional material motivation between those who used the traditional lecturing approach and those who used the Augmented Reality (AR) method. The results demonstrated that AR was more effective in EFL students' motivation and performance.

Yawiloeng (2020) investigated the impacts of an English vocabulary video on Thai University EFL learners' vocabulary, looking at the pedagogical implications of multimedia learning in terms of the linkages between visual and aural information. The results demonstrated an increase in post-test scores after Thai EFL learners engaged in L2 vocabulary learning using videos. Furthermore, participants preferred learning L2 vocabulary using videos that included first language (L1) and L2 captions, images, and L2 audios relevant to the target vocabulary.

Mukhlif and Challob (2021) compared the effectiveness of using Facebook as an Online Learning Platform (FOLP) to traditional instruction in enhancing the vocabulary knowledge of Iraqi EFL secondary school students in a quasi-experimental study. The results showed that FOLP was found to be more successful than traditional instruction at boosting EFL students' vocabulary knowledge. Furthermore, the findings revealed that diversity of teaching strategies, instant feedback, group work, and independent learning opportunities positively impacted students' vocabulary development.

In the Saudi context, Bataineh (2014) explored the impact of using website games on students' reading comprehension, learning vocabulary, and motivation. This study sample consisted of 40 male school students in Madinah, Saudi Arabia. The results reported that EFL students showed better performance than those who were taught traditionally. Moreover, because students were motivated to learn, they could improve their reading comprehension and vocabulary learning.

In a quasi-experimental study, Abdalla (2015) investigated utilizing edutainment in learning vocabulary. The sample consisted of 30 Sudanese intermediate students divided into a control and experimental group that received vocabulary lessons from two selected websites with games and animation films participating within nine weeks. The results documented that the experimental group outperformed the control group in the post-test. Moreover, both teachers and students valued the roles of edutainments in teaching and learning English.

Habbash (2015) investigated the effect of mobile applications in teaching vocabulary for the EFL undergraduate level inside and outside the classrooms. The sample consisted of 56 Saudi EFL teachers who responded to a 50-item questionnaire. The results documented that EFL teachers have positive perspectives on mobile applications. They indicated their agreement on encouraging their students to utilize social media platforms like Instagram, WhatsApp, Facebook, and Twitter to improve vocabulary development. Moreover, they demonstrated the essential roles of mobile applications in facilitating vocabulary teaching.

In a quasi-experimental research design, Shahbaz and Khan (2017) found that the Saudi university students in the experimental group performed significantly better in the post-test, demonstrating the effectiveness of the mobile application in learning vocabulary.

EFL teachers' perspectives on the roles of edutainment in teaching vocabulary

Although vocabulary learning and development have been widely investigated, few studies have investigated the association between teachers' perspectives on using technology-based VLSs.

A study conducted by Ali and Ghazali (2016) explored teachers' perspectives on using the VocBlast game as a mobile language learning application in teaching vocabulary at the University of Malaysia. The teachers were asked to respond to interviews. The results reported their positive perspectives on the VocBlast game as valuable material to develop learners' critical thinking and creativity. Moreover, the results reported improved learners' deductive, inductive, and metacognitive thinking skills.

Pham and Nguyen (2018) explored teachers' perceptions of using PowerPoint (PPT) as an information and communications tool in teaching vocabulary. Sixty Vietnamese EFL teachers were asked to respond to a questionnaire and interviews. The findings revealed that teachers' reported positive perceptions of using PPT in teaching vocabulary as a valuable instructional tool. The results also found that PPT provides learners with a pleasant learning environment. Nonetheless, they expressed some concerns regarding the time, lack of facilities, and teachers' inadequate knowledge of technology.

In Saudi contexts, Kabooha and Elyas (2018) investigated teachers' and students' perceptions of integrating YouTube videos during reading tasks to improve vocabulary comprehension and memorization. The study examined 4 Saudi EFL female teachers and 100 EFL female students divided into control and experimental groups. The results showed significant differences in favor of the experimental group. The results also showed that both teachers and students perceived YouTube positively as a helpful tool in teaching and learning vocabulary.

Al-Johali (2019) explored Saudi EFL teachers' perspectives on using mobile applications in teaching vocabulary at public schools in Saudi Arabia. The participants were 113 Saudi EFL school teachers asked to respond to a 25-item questionnaire. The results showed that the teachers considered mobile applications as practical tools to enhance collaboration between learners, exchange knowledge and lesson activities, and assist

each other regarding the technical issues they encounter.

Alsaif and Farhana (2019) explored EFL teachers' acceptance of MALL applications in learning vocabulary, particularly Duolingo. The participants were 20 Saudi EFL teachers who responded to a questionnaire, and only three were interviewed. The results revealed that teachers positively viewed Duolingo as a beneficial application to increase learners' motivation. Nonetheless, they expressed some concerns regarding MALL applications' unsuitability, leading them to be reluctant to use them.

2. Statement of the problem

Saudi students usually graduate from secondary schools with a low proficiency level in all language skills, which leads them to face many challenges at the college level (Fareh, 2010). Notably, several factors affect learners' achievement and motivation while learning English. For example, curriculum failure to fulfill learners' needs, teachers' dependence on non-interactive methods, and learners' lack of comprehending instructions or writing meaningful sentences could create low motivating learning settings (Alkubaidi, 2014; Alrashidi & Phan, 2015; Rahman & Alhaisoni, 2013).

As one of the knowledge areas in language, vocabulary plays an essential role in learners' academic performance, communication, and understanding of any written or spoken language (Rabab'ah, 2003). As effective practices are required to teach vocabulary, more attention should be paid to the appropriate use of interactive vocabulary learning techniques within an attractive learning environment (Zin & Zain, 2010). Therefore, Saudi EFL teachers are expected to consider new methods and strategies to promote learning in an enjoyable environment. Thus, applying edutainment portmanteau, which is the combination of education and entertainment, may attract the learners' senses, allow them to enjoy learning, and enhance their vocabulary learning levels.

Although extensive research has been carried out on using technology to support vocabulary learning, a considerable literature has grown up around the theme of edutainment, in particular, in teaching and learning vocabulary, regarding learners' cognitive development, psychology, and social behavior (Abdalla, 2015; Bataineh, 2014; Čepon, 2013; Habbash, 2015; Kabooha & Elyas, 2018). However, few Saudi studies (Al-Johali, 2019; Alsaif & Farhana, 2019; Kabooha & Elyas, 2018) have investigated teachers' perspectives on teaching vocabulary in enjoyable learning environments. Therefore, this quantitative study's primary goal is to explore university EFL instructors' perspectives on the roles of edutainment in teaching vocabulary in Saudi Arabia concerning learners' cognitive, psychological, and social development.

3. Research questions

1. What are the perspectives of university EFL instructors on the roles of edutainment in teaching vocabulary?
2. What are university EFL instructors' perspectives on the roles of edutainment in teaching vocabulary concerning cognitive development?
3. What are university EFL instructors' perspectives on the roles of edutainment in teaching vocabulary concerning psychological development?
4. What are university EFL instructors' perspectives on the roles of edutainment in teaching vocabulary concerning social development?

4. Methodology

The quantitative data was gathered via a questionnaire designed to collate Saudi university EFL instructors' perspectives on the roles of edutainment in teaching vocabulary. The data was collected using a descriptive research design. Fraenkel and Wallen (2009) state that a descriptive design "summarizes the characteristics (abilities, preferences, behaviors) of individuals, groups, or (sometimes) physical environments (such as schools)" (p.14).

4.1. Population and research sample

This study comprises all Saudi EFL instructors in Saudi universities during the first and second semesters of the 2020 and 2021 academic years. The study sample includes 91 EFL instructors. The research sample was selected randomly from different universities such as Taibah University, Al-Ghad International Health Sciences Colleges, Prince Mugrin university, Princess Nourah Bint Abdul Rahman University, and the Northern Border University. The characteristics of the sample are described based on their gender, degree, years of teaching experience, and age as follows:

Table 1. Characteristics of the research sample

Variables		Frequencies N = 91	Percentages	Total (100%)
Gender	Female	53	58.2%	100%
	Male	38	41.8%	
Degree	Bachelor	29	31.9%	100%
	Diploma	0	0%	
	Master	47	51.6%	
	PhD	13	14.3%	
	Other	2	2.2%	
Years of experience	Less than 5	19	20.9%	100%
	5 - 10	22	24.2%	
	11 - 15	20	22.0%	
	16 - 20	16	17.6%	
	More than 20	14	15.4%	
Age	25 - 34	31	34.1%	100%
	35 - 44	35	38.5%	
	45 - 55	19	20.9%	
	Over 55	6	6.6%	

As shown in Table 1, more than half of the participants, 53 (58.2%), were female instructors, and 38 (41.8%) were male instructors. About 35 (38.5%) of the participants' prevalent age ranged from 35 to 44 years old. More than half of the participants, 47 (51.6%), carry a master's degree. Also, 22 (24.2%) had 5 to 10 years of experience, whereas 20 (22.0%) had 11 to 15 years of experience.

Regarding the two background questions, the sample responses are presented in Table 2 below:

Table 2. EFL instructors' use of edutainment in language classrooms

Background Questions	Yes		No		Total
	F	%	F	%	
Do you use edutainment in your EFL classes in general?	83	91.2	8	8.8	91 (100%)
Do you use edutainment in teaching vocabulary in particular?	78	85.7	13	14.3	91(100%)

Table 2 shows that 83 (91.2%) university instructors use edutainment in their EFL classes, and 78 (85.7%) use it in teaching vocabulary. The above high response rate could be attributed to Saudi EFL instructors' beliefs that the use of technology contributes significantly to the pedagogical aspects of the English language, in which the application of edutainment will lead to effective learning with the assistance and support of technology elements, components, and enjoyable features.

4.2. Instrumentation

The researchers designed a closed-ended questionnaire to explore university EFL instructors' perspectives on the roles of edutainment in teaching vocabulary based on the reviewed literature (Al-Johali, 2019; Alsaif & Farhana, 2019; Zuraina Ali & Ghazali, 2016).

The questionnaire is divided into three parts. The first part consists of questions about the sample demographic information. In the second part, the participants were asked to answer two closed questions about using edutainment in EFL classes and teaching vocabulary. Lastly, the third part consists of several items to measure instructors' perspectives on the roles of edutainment when teaching vocabulary. The questionnaire 34-items were ranked using a five-point Likert scale (5= Always, 4= Usually, 3= Sometimes, 2= Rarely, and 1= Never). The items were also distributed on the three central dimensions regarding the roles of edutainment in teaching vocabulary concerning (a) cognitive abilities with three sub-dimensions, (b) psychological aspects with three sub-dimensions, and (c) students' social aspects with two sub-dimensions. Firstly, students' cognitive abilities include comprehension (5 items), creativity (4 items), and critical thinking (4 items). Secondly, students' psychological aspects consist of attitudes (4 items), motivation (4 items), and satisfaction (4 items). Thirdly, students' social aspects cover communication (4 items) and collaboration (5 items).

4.3. Validity and reliability

Five curriculum and language teaching experts reviewed the questionnaire items and commented on their clarity, relevance, and adequacy to the purpose of the study, the dimensions, and sub-dimensions. They suggested some linguistic and structural modifications and deleted one statement, resulting in a total of 33 items in the final version of the questionnaire. Thus, the critical thinking sub-dimension included (3 items) instead of 4.

Moreover, a pilot study was conducted with 11 Saudi University EFL instructors to compute the

questionnaire's reliability and internal consistency to measure the extent to which the questionnaire items measure the same underlying construct. Pearson correlation was employed to describe the strength and direction of the relationship between the questionnaire items. The correlation coefficient results indicated a positive, direct, and significant relationship between a total of 12 items of the first dimension with range values ($r = .619-.915$). Likewise, the correlation coefficient results indicated a positive, direct, and significant relationship between a total of 12 items of the second dimension with range values ($r = .633-.930$). The third dimension results showed a positive, direct, and significant relationship between a total of 9 items with range values ($r = .705-.940$).

Cronbach's alpha coefficient was employed to measure all items' internal consistency in the questionnaire. The results indicated a high internal consistency and reliability between the 33 items (0.933). The reliability of the 12 items covers the first dimension ($\alpha=0.840$), the reliability of the 12 items covers the second dimension ($\alpha=0.848$), and the nine items cover the third dimension ($\alpha=0.935$). The estimated reliability of the analyzed items was above the accepted value of 0.7.

4.4. Data collection

On November 23rd, 2021, the questionnaire was directed officially to Saudi University EFL instructors in Saudi Arabia. It took about three weeks to receive 91 responses from Taibah University, Al-Ghad International Health Sciences Colleges, Prince Mugrin university, Princess Nourah Bint Abdul Rahman University, and the Northern Border University regarding EFL instructors' voices toward the roles of edutainment in teaching vocabulary.

4.5. Data analysis

The responses to the questionnaire were analyzed using version 25 of the Statistical Package for the Social Sciences (SPSS). The quantitative data was calculated using descriptive statistics (frequencies, percentages, means, and standard deviations).

5. Results

Frequencies, percentages, means, and standard deviations were computed to answer the four research questions. The mean (M) and standard deviation (SD) for each item of the questionnaire responses were used to rank from high to the low frequency of use.

5.1. Results of perspectives on the roles of edutainment in teaching vocabulary

Descriptive statistics were computed to answer the first research question, "What are the perspectives of university EFL instructors on the roles of edutainment in teaching vocabulary?" (see Table 3). The results ranked from high to low mean and standard deviation scores for each sub-dimension.

Table 3. Dimensions of the roles of edutainment in learning vocabulary

Dimensions	Sub- Dimensions	Descriptive Statistics of the Sub-dimensions			Descriptive Statistics of the Dimensions			Level
		No of Items	M	SD	No of Items	M	SD	
Cognitive Abilities	Critical thinking	3	4.13	0.74	12	3.96	0.84	Usually
	Creativity	4	3.97	0.85				
	Comprehension	5	3.79	0.93				
Psychological Aspects	Attitudes	4	4.36	0.68	12	4.02	0.77	Usually
	Motivation	4	3.86	0.81				
	Satisfaction	4	3.85	0.83				
Social Aspects	Communication	4	4.09	0.75	9	2.58	0.55	Sometimes
	Collaboration	5	3.66	0.89				
Total						3.52	0.72	Usually

As shown in Table 3, the results demonstrate the perspectives of university EFL instructors towards the roles of edutainment in teaching vocabulary regarding the main three dimensions and their sub-dimensions. Among cognitive development sub-dimensions, critical thinking obtained the highest mean score ($M=4.13$; $SD=.74$), followed by creativity with a mean score ($M=3.97$; $SD=.85$). However, comprehension got the lowest mean score ($M=3.79$; $SD=.93$), which indicates that EFL instructors view edutainment as a key role in students' critical thinking more than creativity and comprehension.

As for the psychological development sub-dimensions, attitudes obtained the highest mean score ($M=4.36$; $SD=.68$), followed by motivation ($M=3.86$; $SD=.81$) and satisfaction ($M=3.85$; $SD=.83$) which showed close mean scores. Hence, the means scores indicate that EFL instructors view edutainment as a critical aspect of students' vocabulary learning attitudes than their motivation and satisfaction.

Lastly, regarding social development sub-dimensions, communication obtained the highest mean score ($M=4.09$;

SD=.75), followed by collaboration (M=3.66; SD=.89) which indicates that edutainment has a crucial role in Saudi students' communication while learning vocabulary more than collaboration based on the perspectives of university EFL instructors.

5.2. Results of perspectives on the roles of edutainment in improving cognitive abilities

Descriptive statistics were computed to answer the second research question, "What are university EFL instructors' perspectives on the roles of edutainment in teaching vocabulary concerning cognitive development?" (see Tables 4, 5, & 6).

Table 4. Roles of edutainment in improving critical thinking while learning vocabulary

Cognitive Abilities: Critical Thinking	The Scale					M	SD	Level
	Always	Usually	Sometimes	Rarely	Never			
1. Improve students' higher-level thinking abilities.	40 (44.0)	33 (36.3)	18 (19.8)	-	-	4.24	.765	Always
2. Analyze learned vocabulary.	29 (31.9)	45 (49.5)	17 (18.7)	-	-	4.13	.703	Usually
3. Use the new words in diverse structures.	25 (27.5)	46 (50.5)	18 (19.8)	2 (2.2)	-	4.03	.752	Usually
Total						4.13	0.74	Usually

As shown in Table 4, item 6 (M=4.24; SD=.765) reveals that the EFL instructors "Always" find that edutainment improves students' higher-level thinking abilities. Moreover, they "Usually" viewed that using edutainment help EFL students analyze learned vocabulary. Likewise, the EFL instructors "Usually" assume that edutainment assists learners in using the new words in diverse structures.

The mean score of the overall items (M=4.13; SD=0.74) shows that Saudi EFL instructors found that edutainment improves the critical thinking skills of university students during learning vocabulary.

Table 5. Roles of edutainment in improving creativity while learning vocabulary

Cognitive Abilities: Creativity	The Scale					M	SD	Level
	Always	Usually	Sometimes	Rarely	Never			
4. Predict the meaning of new vocabulary.	38 (41.8)	33 (36.3)	19 (20.9)	1 (1.1)	-	4.19	.802	Usually
5. Use the words in meaningful sentences.	31 (34.1)	39 (42.9)	20 (22.0)	1 (1.1)	-	4.10	.775	Usually
6. Categorize vocabulary according to the different parts of speech.	28 (30.8)	34 (37.4)	25 (27.5)	4 (4.4)	-	3.95	.874	Usually
7. Classify synonyms and antonyms for the learned vocabulary.	20 (22.0)	35 (38.5)	30 (33.0)	6 (6.6)	-	3.76	.874	Usually
Total						3.97	0.85	Usually

The results shown in Table 5 reveal that EFL instructors believe that using edutainment "Usually" encourages students to predict the meaning of new vocabulary (M=4.19; SD=.802). Similarly, the responses to item 10 (M=4.10; SD=.775) demonstrate that EFL instructors realize that edutainment "Usually" encourages university students to use the words in meaningful sentences. Likewise, the results of items 11 and 12 (M=3.95; SD=.874; M=3.76; SD=.874) show that they assume that using edutainment "Usually" helps students to categorize vocabulary according to the different parts of speech and classify synonyms and antonyms for the learned vocabulary, respectively. The mean score of the overall items (M=3.97; SD=0.85) indicates that Saudi EFL instructors found that edutainment improves the creativity skills of university students while learning vocabulary.

Table 6. Roles of edutainment in improving comprehension while learning vocabulary

Cognitive Comprehension	Abilities:	The Scale					M	SD	Level
		Always	Usually	Sometimes	Rarely	Never			
8. Identify vocabulary meaning.		41 (45.1)	30 (33.0)	20 (22.0)	-	-	4.23	.790	Always
9. Produce the accurate pronunciation of vocabulary.		33 (36.3)	38 (41.8)	18 (19.8)	-	2 (2.2)	4.10	.870	Usually
10. Translate vocabulary accurately to L1.		32 (35.2)	25 (27.5)	27 (29.7)	7 (7.7)	-	3.90	.978	Usually
11. Recognize the multi-meaning of the vocabulary.		19 (20.9)	38 (41.8)	28 (30.8)	6 (6.6)	-	3.77	.857	Usually
12. Distinguish the correct spelling of the vocabulary.		22 (24.2)	27 (29.7)	37 (40.7)	3 (3.3)	2 (2.2)	3.70	.949	Usually
Total							3.79	0.93	Usually

As shown in Table 6, the results for item 1 (M=4.23; SD=.790) reveal that the EFL instructors "Always" find that edutainment assists students in identifying the meaning of the new vocabulary. The results of item 2 (M=4.10; SD=.870) show that edutainment "Usually" (M=3.90; SD=.978) supports students in producing the accurate pronunciation of learned vocabulary. Similarly, the EFL instructors "Usually" see that edutainment helps students translate vocabulary accurately to L1. The results of items 4 and 5 (M=3.77; SD=.857; M=3.70; SD=.949) show that they assume that using edutainment "Usually" helps students to recognize the multi-meaning of the vocabulary and distinguish the correct spelling of the learned vocabulary, respectively.

The mean score of the overall items (M=3.79; SD=0.93) shows that Saudi EFL instructors found that edutainment improves the comprehension skills of university students when learning vocabulary.

5.3. Results of perspectives on the roles of edutainment in enhancing psychological aspects

Descriptive statistics were computed to answer the third research question, "What are university EFL instructors' perspectives on the roles of edutainment in teaching vocabulary concerning psychological development?" (see Tables 7, 8, & 9).

Table 7. Roles of edutainment in developing attitudes while learning vocabulary

Psychological Attitudes	Aspects:	The Scale					M	SD	Level
		Always	Usually	Sometimes	Rarely	Never			
13. Make the vocabulary lessons more attractive.		54 (59.3)	30 (33.0)	6 (6.6)	1 (1.1)	-	4.51	.673	Always
14. Attract students' attention to new vocabulary.		48 (52.7)	33 (36.3)	10 (11.0)	-	-	4.42	.684	Always
15. Enable unconscious learning of vocabulary.		43 (47.3)	36 (39.6)	12 (13.2)	-	-	4.34	.703	Always
16. Increase students' engagement during vocabulary lessons.		38 (41.8)	44 (48.4)	9 (9.9)	-	-	4.32	.648	Always
Total							4.36	0.68	Always

As shown in Table 7, the results for item 13 (M=4.51; SD=.673) revealed that the EFL instructors "Always" found that edutainment develops positive attitudes in the students, as it makes the vocabulary lessons more attractive and attracts students' attention to new vocabulary (Item 14, M=4.42; SD=.684). Similarly, items 15 and 16 (M=4.34; SD=.703; M=4.32; SD=.648) indicate that EFL instructors "Always" found that edutainment builds positive attitudes toward learning vocabulary unconsciously and actively engaging during class time.

Moreover, the mean score of the overall items (M=4.36; SD=0.68) reveals that Saudi EFL instructors found that edutainment develops positive attitudes of university students towards learning vocabulary.

Table 8. The roles of edutainment in improving motivation while learning vocabulary

Psychological Motivation	Aspects:	The Scale					M	SD	Level
		Always	Usually	Sometimes	Rarely	Never			
17. Involve students in vocabulary tasks or activities.		38 (41.8)	41 (45.1)	11 (12.1)	1 (1.1)	-	4.27	.716	Always
18. Enhance students' responsibility for learning English vocabulary.		24 (26.4)	38 (41.8)	25 (27.5)	4 (4.4)	-	3.90	.844	Usually
19. Gain self-confidence in using vocabulary in the new context.		21 (23.1)	37 (40.7)	31 (34.1)	2 (2.2)	-	3.85	.802	Usually
20. Encourage students' autonomous learning of vocabulary.		18 (19.8)	41 (45.1)	31 (34.1)	-	1 (1.1)	3.82	.783	Usually
Total							3.86	0.81	Usually

The results in Table 8 revealed that the EFL instructors "Always" (Item 17, $M=4.27$; $SD=.716$) found that edutainment enhances students' motivation to learn vocabulary as it involves students in vocabulary tasks or activities. Moreover, item 18 ($M=3.90$; $SD=.844$) demonstrates that EFL instructors believe that edutainment "Usually" enhances students' responsibility for learning English vocabulary. Similarly, items 19 and 20 ($M=3.85$; $SD=.802$; $M=3.82$; $SD=.783$) indicate that EFL instructors "Usually" found that edutainment increases self-confidence in using vocabulary in the new context and encourages students' autonomous vocabulary learning, respectively.

Furthermore, the mean score of the overall items ($M=3.86$; $SD=0.81$) illustrates that Saudi EFL instructors found that edutainment enhances students' motivation to learn vocabulary.

Table 9. Roles of edutainment in improving satisfaction while learning vocabulary

Psychological Satisfaction	Aspects:	The Scale					M	SD	Level
		Always	Usually	Sometimes	Rarely	Never			
21. Promote interactions among EFL students in vocabulary lessons.		30 (33.0)	43 (47.3)	17 (18.7)	1 (1.1)	-	4.12	.743	Usually
22. Match EFL students' needs regarding learning vocabulary.		24 (26.4)	36 (39.6)	29 (31.9)	2 (2.2)	-	3.90	.817	Usually
23. Meet students' expectations for success in vocabulary learning.		20 (22.0)	41 (45.1)	28 (30.8)	2 (2.2)	-	3.87	.778	Usually
24. Save the allocated time for vocabulary in the language classroom.		21 (23.1)	34 (37.4)	31 (34.1)	4 (4.4)	1 (1.1)	3.77	.895	Usually
Total							3.85	0.83	Usually

As presented in Table 9, item 21 ($M=4.12$; $SD=.743$) reveals that the EFL instructors "Usually" observed edutainment promotes interactions among EFL students in vocabulary lessons. According to EFL instructors' perspectives, item 22 ($M=3.90$; $SD=.817$) shows that edutainment "Usually" considers EFL students' needs regarding learning vocabulary. The results of items 23 and 24 ($M=3.87$; $SD=.802$; $M=3.77$; $SD=.895$) indicate that EFL instructors "Usually" perceive that edutainment meets students' expectations for success and saves the allocated time for vocabulary in the language classroom, respectively.

Furthermore, the mean score of the overall items ($M=3.85$; $SD=0.83$) demonstrates that Saudi EFL instructors found that edutainment enhances students' satisfaction with learning vocabulary.

5.4. Results of perspectives on the roles of edutainment in developing social aspects

Descriptive statistics were computed to answer the fourth research question, "What are university EFL instructors' perspectives on the roles of edutainment in teaching vocabulary concerning psychological development?" (See Tables 10 & 11).

Table 10. Roles of edutainment in encouraging communication while learning vocabulary

Social Communication	Aspects:	The Scale					M	SD	Level
		Always	Usually	Sometimes	Rarely	Never			
25. Enable active learning in vocabulary lessons.		34 (37.4)	38 (41.8)	18 (19.8)	1 (1.1)	-	4.15	.773	Usually
26. Encourage EFL students to participate actively in vocabulary lessons.		31 (34.1)	42 (46.2)	17 (18.7)	1 (1.1)	-	4.13	.748	Usually
27. Stimulate EFL students' interaction in using new vocabulary.		30 (33.0)	42 (46.2)	18 (19.8)	1 (1.1)	-	4.11	.752	Usually
28. Improve students' skills to share their vocabulary knowledge with classmates.		21 (23.1)	48 (52.7)	21 (23.1)	1 (1.1)	-	3.98	.715	Usually
Total							4.09	0.75	Usually

Table 10 reveals the responses of EFL instructors to 4 items on the roles of edutainment communication while learning vocabulary. The results show that item 25 obtained the highest mean ($M = 4.15$, $SD = .773$), which indicates that edutainment "Usually" enables active learning in vocabulary lessons. Almost similar mean scores were obtained by items 26 and 27 ($M=4.13$; $SD=.748$; $M=4.11$; $SD=.752$), which refer to EFL instructors' perspectives on the roles of edutainment in encouraging EFL students to participate actively in vocabulary lessons and stimulating EFL students' interaction in using new vocabulary. Similarly, item 28 ($M=3.98$; $SD=.715$) show that EFL instructors assume that using edutainment "Usually" helps students share their vocabulary knowledge with other classmates.

Besides, the mean score of the overall items ($M=4.09$; $SD=0.75$) shows that Saudi EFL instructors found that edutainment enhances students' communication during learning vocabulary.

Table 11. Roles of edutainment in encouraging collaboration while learning vocabulary

Social Collaboration	Aspects:	The Scale					M	SD	Level
		Always	Usually	Sometimes	Rarely	Never			
29. Share ideas and knowledge regarding vocabulary learning with other classmates.		19 (20.9)	37 (40.7)	35 (38.5)	-	-	3.82	.754	Usually
30. Explore classmates' different perspectives on using vocabulary.		17 (18.7)	34 (37.4)	36 (39.6)	4 (4.4)	-	3.70	.823	Usually
31. Discuss with other classmates the multi meanings of the new vocabulary.		15 (16.5)	39 (42.9)	32 (35.2)	4 (4.4)	1 (1.1)	3.69	.839	Usually
32. Respect classmates' exclusive techniques in learning vocabulary.		18 (19.8)	36 (39.6)	25 (27.5)	11 (12.1)	1 (1.1)	3.65	.970	Usually
33. Negotiate with others the correct usage of the new vocabulary.		15 (16.5)	37 (40.7)	31 (34.1)	8 (8.8)	-	3.65	.861	Usually
Total							3.66	0.89	Usually

As shown in Table 11, the results for item 29 ($M= 3.82$; $SD= .754$) revealed that the EFL instructors "Usually" saw that edutainment helps EFL students to share ideas and knowledge regarding vocabulary learning with other classmates. Approximate mean scores were obtained by items 30 and 31 ($M=3.70$; $SD=.823$; $M=3.69$; $SD=.839$), which refer to EFL instructors' perspectives on the roles of edutainment in encouraging EFL students to explore classmates' different perspectives of using vocabulary and discuss the multi meanings of the new vocabulary. Similarly, the results of items 32 and 33 show identical mean scores ($M=3.65$; $SD=.970$; $M=3.65$; $SD=.861$), which indicate that EFL instructors "Usually" found that edutainment promotes respect for classmates' unique methods of acquiring vocabulary and negotiating the proper usage of the new terminology with each other.

Furthermore, the mean score of the overall items ($M=3.66$; $SD=0.89$) shows that Saudi EFL instructors found that edutainment increases students' collaboration during learning vocabulary.

6. Discussions

Analyzing the first two questions in the rating scale revealed that most university EFL instructors use edutainment in their classes. These results agree with Dudeney and Hockly (2012) and Pham and Nguyen (2018), who argued that the teachers are usually eager to provide appropriate and up-to-date online language learning resources to provide learners with a pleasant learning environment. However, the results of the background questions showed that not all of them are using it in teaching vocabulary. Probably it is not because of the lack of training instructors regarding advanced technology usage because more than half of the participants carry a master's degree and are forced to use technology in their classes. This result is consistent with what Alqahtani (2019) pointed out regarding the crucial role of EFL teachers' knowledge and familiarity with high-tech evolutions in utilizing technology effectively in teaching all language skills and aspects. In contrast, Pham and Nguyen (2018) argued that teachers' inadequate knowledge of technology is still a concern in integrating e-materials in EFL classrooms.

Hence, it is probably due to the lack of appropriate vocabulary e-materials that represent those included in students' textbooks. This explanation aligns with Ediger (1998), Rabab'ah (2003), and Kacani and Cyfeku (2015) arguments that teaching and learning vocabulary necessitate materials that focus on grammatical use in different contexts, not only on recognizing or explaining its meaning. At the same time, the results of their studies expressed some concerns regarding the lack of facilities, including the fitting edutainment for targeted vocabulary.

It might also be due to the availability of proper listening and speaking materials that instructors usually focus on during teaching, which leads to not looking for other edutainment media focused on different language skills such as vocabulary.

Based on the results obtained from the three research questions, the EFL instructors generally favored the edutainment role in developing students' psychological aspects over the other dimensions. A possible explanation for this might be that EFL instructors believe in the importance of psychological attributes to understand individual learning and inform the instructional process. Besides, as most 21st-century digital learners are digitized and literate in technology, the teachers might be eager to focus intensively on their learning in various settings to identify approaches and strategies to provide sufficient exposure to multiple online language materials and make learning more effective. These proposed interpretations seem consistent with other research (Dudeney & Hockly, 2012; Habbash, 2015; Hashim, 2018; Hazarika, 2017; Niño, 2015; Shahbaz & Khan, 2017), which found that the 21st-century digital learners have become ready to explore the extensive range of applications accessible on their smart devices to enhance their language performance.

For further in-depth interpretation, the results indicated that EFL instructors extremely valued the crucial role of edutainment on students' attitudes as a psychological aspect of integrating edutainment into vocabulary learning. It could be argued that the positive results were due to the attractive features of edutainment media that enhance students' attention and engagement during vocabulary learning. The positive attitudes could also be attributed to the primary goal of edutainment in the classroom which is to educate learners while simultaneously amusing them.

These results support previous research (Alshammari, 2020; Hermagustiana & Rusmawaty, 2018; Parvin & Salam, 2018) on using technology in vocabulary learning to educate and entertain learners, foster positive attitudes toward education, elicit explicit knowledge and meet students' academic needs.

Another important finding was that EFL instructors highly valued the crucial role of edutainment on students' critical thinking skills as a part of their cognitive abilities. A possible explanation for these findings is that edutainment media may give materials that focus on VLSs that learners may equip themselves with to think analytically, divergently, and critically. For example, edutainment media may offer VLSs that promote comparing, explaining, and inferring word meanings. Moreover, such resources might give learners opportunities to judge sources, refer to, and assume new use of the words, which all are considered parts of critical thinking skills. This result is consistent with Ali and Ghazali (2016), who showed that university professors had favorable attitudes while employing a mobile language learning game in teaching vocabulary as a valuable material to promote learners' critical thinking and creativity. Likewise, the results found that using a vocabulary game as an edutainment media significantly improved the learners' deductive, inductive, and metacognitive thinking abilities.

The most exciting finding was that EFL instructors regarded the vital role of edutainment on students' communication as a social aspect. It seems possible that these results are because limited vocabulary knowledge can negatively impact the development of a student's language learning. Thus, edutainment media might include active VLSs that engage digitized students with vocabulary materials through discussions, problem-solving, case studies, role plays, and other VLSs. Moreover, students' engagement in edutainment media might increase multiple opportunities for participation, learner-learner interaction, not necessary collaboration, and knowledge sharing that allows students to exchange experiences and expertise and improve the productivity of vocabulary learning.

These findings are in agreement with those obtained by Abdalla (2015) and Walldén and Soronen (2004), who revealed that edutainment improves vocabulary learning, retention, academic accomplishment, motivation, self-confidence, and communication.

Besides, these findings support previous research (Ali, 2020; Goundar, 2019; Mirioglu, 2020; Yawiloeng, 2020) that found an association between VLSs and learners' involvement and communication via utilized edutainment. Previous research has found that using stimulated VLSs such as word guessing, dictionaries, translation, note-taking, visuals, and auditory information engages learners in L2 vocabulary learning and social interaction activities.

Once again, another important finding was that EFL instructors appraised the essential role of edutainment on students' creativity skills as a part of their cognitive abilities. A possible explanation for these results may be that edutainment media is usually designed through entertainment and other fun VLSs to educate learners. Hence, it might be possible for EFL students to show their creativity in vocabulary learning by using edutainment features such as predicting the meaning of new vocabulary, using the words in meaningful structures, and categorizing vocabulary according to the different parts of speech. These results are similar to that of Aksakal (2015), Colace et al. (2006), and Wu et al. (2011), who reported that the fundamental goal of edutainment is to convey knowledge while motivating learners to engage in the educational process through creativity. Furthermore, it challenges traditional teaching approaches by allowing dynamic communication and interaction.

Moreover, the results of this study indicate that EFL instructors regarded the key role of edutainment on students' motivation and satisfaction as psychological aspects of integrating edutainment into vocabulary learning. There are several possible explanations for these results. A possible explanation may be that edutainment enables the learners to self-direct their learning, which entails assuming responsibility for any decision about the learning process. Another possible reason might be that language edutainment is designed to provide EFL learners with more opportunities for English communication in a non-native environment and cater to learners' individual needs at all levels. It also might enhance motivation and leads to more satisfaction. Furthermore, all the facilities provided by the edutainment media to learn vocabulary interactively might match 21st century digital students' needs and expectations and increase their satisfaction. These results seem to be consistent with other research (Abdalla, 2015; Alsaif & Farhana, 2019; Bataineh, 2014; Tsai, 2020; Walldén & Soronen, 2004; Yürük, 2019), which revealed that teachers positively viewed edutainment to increase learners' motivation and enhance language performance and participation. Furthermore, Alqarni et al. (2019) reported that when EFL students are enthusiastic about utilizing technology to help them learn English, it motivates instructors to work more to create a better language environment.

On the other hand, EFL instructors placed an average value on the role of edutainment on students' comprehension as a part of their cognitive abilities or collaboration as a component of the social aspects.

A possible explanation for this might be that comprehension represents a lower-level thinking skill that eventually will be mastered by the instructor's explanations or giving examples without resorting to more active teaching strategies. Besides, EFL instructors might seek to use multiple edutainment media types to induce learners' higher-level thinking skills when learning the vocabulary. Thus, they might set higher standards for other skills than comprehension, such as critical thinking, creativity, motivation, engagement, and active involvement. This result is consistent with Kabooha and Elyas (2018), who found that both teachers and students perceived edutainment materials positively as helpful tools in teaching and learning vocabulary and enhancing learners' comprehension.

Regarding collaboration, a possible interpretation is that EFL instructors might notice how edutainment promotes individual learning more than cooperative learning. Hence, although communication and interaction exist within the EFL classroom while using edutainment media, there are opportunities for group collaboration but still not comparable to individual activities.

However, this result has not previously been described. For example, Al-Johali (2019) found that the teachers considered edutainment media practical tools for improving student cooperation, exchanging information and class activities, and assisting one another with technical challenges.

7. Conclusion & Recommendations

Digitalization or the use of digital technologies in many branches of society has also manifested itself in the education sector. Developments aim to overcome the restrictions of informal education and increase teacher-student interactions. Researchers and practitioners have turned to design learning processes appropriate to students' needs, expectations, and learning styles. Teaching and learning languages in general, particularly vocabulary, is fundamental to English learning. Thus, the primary goal of the current quantitative study is to explore university EFL instructors' perspectives on the roles of edutainment in teaching vocabulary in Saudi Arabia concerning students' cognitive, psychological, and social development. These three dimensions are considered essential contributing factors to students' learning English growth. Hence, sub-dimensions were selected to concentrate on specific points. The first dimension is cognitive development which tackles critical

thinking, creativity, and comprehension. The second dimension is psychological development and addresses attitude, satisfaction, and motivation. Finally, the third dimension is social development and deals with communication and collaboration.

The participants included 91 EFL instructors. The data was collected through a questionnaire. The results indicated that edutainment contributes to vocabulary learning as most university EFL instructors use edutainment in their classes. Nevertheless, not all of them are using it in teaching vocabulary. Generally, EFL instructors favored the edutainment role in developing students' psychological aspects over the other dimensions. EFL instructors extremely valued the crucial role of edutainment on students' attitudes as a psychological aspect, critical thinking skills as a part of their cognitive abilities, and communication as a social aspect of integrating edutainment into vocabulary learning. Moreover, EFL instructors appraised the essential role of edutainment on students' creativity skills as a part of their cognitive abilities and motivation and satisfaction as psychological aspects. On the other hand, EFL instructors moderately valued the role of edutainment on students' comprehension as a part of their cognitive abilities or collaboration as a component of the social aspects.

Generally, the present study makes several noteworthy contributions to a growing body of literature on integrating edutainment in language classrooms. This study stepped forward towards enhancing the understanding of EFL instructors to implement edutainment into their higher education language curricula. It also proves to be particularly valuable to teaching and learning vocabulary at university levels.

Based on the findings of this study, the researchers suggest some practical recommendations. First, edutainment activities should be incorporated often at the post-graduate level to provide an active learning environment. Second, EFL instructors need to enrich language classroom learning strategies and activities and create learning environments that arouse interest in students through integrating edutainment effectively into their vocabulary classes. Third, EFL instructors should educate themselves and immerse themselves in training sessions or programs that equip them with the necessary digital skills to move from lecture-based classes to discussion-based ones. Fourth, EFL instructors should implement group activities to develop communication, collaboration, and teamwork skills. They should activate cooperative VLSs such as research, design, creation, and presentation. When there is a sense of community in class, students are more confident to share each other information instead of turning to their instructors asking for clarification. Fifth, EFL instructors should utilize individualized learning e-materials to present students with knowledge and tasks based on their performance to improve comprehension skills.

More research is needed to replicate the current study with EFL instructors and students to generate more profound insights into their perspectives on the importance and implementation of edutainment materials in learning vocabulary. Researchers should explore the relationship between the implementation of edutainment materials and other language skills and aspects to acknowledge EFL instructors for their contributions while teaching English in changing circumstances. Moreover, it is highly recommended to further investigate and experiment with the impact of a mixture of edutainment materials on students' language achievement.

8. Limitations of the study

This study has resulted in several significant findings. However, this study has only provided data on instructors' perspectives; a broader study that includes the views and concerns of both EFL students and instructors could be conducted to add to the body of research in this area. Furthermore, the study was held only among Saudi EFL teachers in some Saudi universities. Hence, further studies in Saudi universities are encouraged to generalize the results on a broader scale.

Acknowledgments

The researchers would like to express their heartfelt gratitude to the Saudi EFL university instructors who participated in this study for their prompt responses throughout the submission period. Thanks go to some Saudi universities for their administrative assistance during data collection.

References

- Abdalla, R. B. (2015). The role of using edutainment in learning EFL vocabulary. *SUST Journal of Humanities*, 16(4), 1–17.
- Aksakal, N. (2015). Theoretical view to the approach of the edutainment. *Procedia - Social and Behavioral Sciences*, 186, 1232–1239. <https://doi.org/10.1016/j.sbspro.2015.04.081>
- Al-Johali, K. Y. (2019). Using mobile applications to teach vocabulary: Saudi EFL teachers' perceptions. *Global Journal of Foreign Language Teaching*, 9(1), 051–068. <https://doi.org/10.18844/gjflt.v9i1.3968>
- Alhajaji, B. H., Algmedi, J. S., & Metwally, A. A. (2020). Exploring the success of GMT technique: Games, mind-mapping, and Twitter hashtags in teaching vocabulary in EFL higher education environment. *International Journal of Higher Education*, 9(3), 290–299. <https://doi.org/10.5430/ijhe.v9n3p290>
- Ali, M. A. (2020). Investigation of vocabulary learning strategies to identify word meanings for Saudi EFL

- students in reading context. *Arab World English Journal*, 11(3), 149–169. <https://doi.org/10.24093/awej/vol11no3.9>
- Ali, Z., & Ghazali, M. (2016). Learning technical vocabulary through a mobile app: English language teachers' perspectives. *International Journal of Language Education and Applied Linguistics (IJLEAL)*, 4, 81–91. <https://doi.org/10.15282/ijleal.v4.487>
- Alkubaidi, M. A. (2014). The relationship between Saudi English major university students' writing performance and their learning style and strategy use. *English Language Teaching*, 7(4), 83–95. <https://doi.org/10.5539/elt.v7n4p83>
- Allen, V. F. (1983). *Techniques in teaching vocabulary*. Oxford University Press.
- Alqahtani, M. (2015). The importance of vocabulary in language learning and how to be taught. *International Journal of Teaching and Education*, III(3), 21–34. <https://doi.org/10.20472/te.2015.3.3.002>
- Alqahtani, M. A. (2019). The use of technology in English language teaching. *Frontiers in Education Technology*, 2(3), 168–180. <https://doi.org/10.22158/fet.v2n3p168>
- Alqarni, S., Lally, V., & Houston, M. (2019). Saudi students' attitude toward using social media technologies as a supportive tool in English language learning. *Proceedings of EDULEARN19 Conference 1st-3rd July 2019, Palma, Mallorca, Spain, 1(September)*, 10662–10667. <https://doi.org/10.21125/edulearn.2019.0450>
- Alrashidi, O., & Phan, H. (2015). Education context and English teaching and learning in the Kingdom Of Saudi Arabia: An overview. *English Language Teaching*, 8(5), 33–44. <https://doi.org/10.5539/elt.v8n5p33>
- Alsaif, S. A., & Farhana, D. D. (2019). Vocabulary learning through Duolingo Mobile Application: Teacher acceptance, preferred application features and problems. *International Journal of Recent Technology and Engineering*, 8(2S9), 79–85. <https://doi.org/10.35940/ijrte.B1017.0982S919>
- Alshammari, R. (2020). The current use of mobile devices among students and faculty in EFL teaching in a Saudi Arabian context. *TOJET: The Turkish Online Journal of Educational Technology*, 19(2), 34–51.
- Bataineh, A. (2014). The effect of using website games on Saudi pupils' reading comprehension, vocabulary acquisition, and motivation. *Research on Humanities and Social Sciences*, 4(11), 100–108. www.iiste.org
- Boulaid, F., & Moubtassime, M. (2019). Investigating the role of Kahoot in the enhancement of English vocabulary among Moroccan University students: English department as a case study. *International Journal of Innovation and Applied Studies*, 27(3), 797–808. <http://www.ijias.issr-journals.org>
- Čepon, S. (2013). Effective use of the media: Video in the foreign language classroom. *Medijska Istrazivanja*, 19(1), 83–104.
- Colace, F., De Santo, M., Pietrosanto, A., & Troiano, A. (2006). Work in progress: Bayesian networks for edutainment. *Proceedings of the 36th ASEE/IEEE Frontiers in Education Conference on October 28 – 31, 2006, San Diego, CA*, (pp. 13-14). <https://doi.org/10.1109/FIE.2006.322573>
- Dudeny, G., & Hockly, N. (2012). ICT in ELT: How did we get here and where are we going? *ELT Journal*, 66(4), 533–542. <https://doi.org/10.1093/elt/ccs050>
- Ediger, M. (1998). Reading and vocabulary development. *Journal of Instructional Psychology*, 26(1), 7–15.
- Fallata, D. (2012). The role of edutainment in teaching reading and vocabulary to English language learners [California State University, Sacramento]. In *Unpublished Master'S Thesis*. <http://cdspace.calstate.edu/handle/10211.9/1924>
- Fareh, S. (2010). Challenges of teaching English in the Arab world: Why can't EFL programs deliver as expected? *Procedia - Social and Behavioral Sciences*, 2, 3600–3604. <https://doi.org/10.1016/j.sbspro.2010.03.559>
- Goundar, P. R. (2019). Vocabulary learning strategies (VLSs) employed by learners of English as a foreign language (EFL). *English Language Teaching*, 12(5), 177. <https://doi.org/10.5539/elt.v12n5p177>
- Habbash, M. (2015). Learning English vocabulary using mobile phones: Saudi Arabian EFL teachers in focus. *European Scientific Journal*, 11(35), 446–457.
- Hashim, H. (2018). Application of technology in the digital era education. *International Journal of Research in Counseling and Education*, 1(2), 1–5. <https://doi.org/10.24036/002za0002>
- Hazarika, Z. (2017). Exploring the impact of technology in teaching English: TESOL in the context. *European Journal of English Language and Literature Studies*, 5(10), 19–28. www.eajournals.org
- Hermagustiana, I., & Rusmawaty, D. (2018). The use of technology for vocabulary instruction in EFL classrooms: Support and challenges. *International Conference on Education and Technology (2017 ICEduTech), Advances in Intelligent Systems Research (AISR), Volume 144, (Pp. 137-143)*, 144. <https://doi.org/10.2991/icedutech-17.2018.27>
- Hung, I. C., Lee, L., Chao, K. J., & Chen, N. S. (2011). Edutainment technologies: Educational games and virtual reality/augmented reality applications. *Lecture Notes in Computer Science (Including Subseries Lecture Notes in Artificial Intelligence and Lecture Notes in Bioinformatics)*, 6872, 334–341. <https://doi.org/10.1007/978-3-642-23456-9>
- Kabooha, R., & Elyas, T. (2018). The effects of YouTube in multimedia instruction for vocabulary learning: Perceptions of EFL students and teachers. *English Language Teaching*, 11(2), 72–81.

- <https://doi.org/10.5539/elt.v11n2p72>
- Kacani, L., & Cyfeku, J. (2015). Developing EFL vocabulary through speaking and listening activities. *Academic Journal of Interdisciplinary Studies*, 4(3), 390–394. <https://doi.org/10.5901/ajis.2015.v4n3s1p390>
- Mirioglu, M. (2020). Investigating the importance level and utilization of vocabulary learning strategies among Turkish EFL learners. *Asian Journal of University Education*, 16(1), 31–45. <https://doi.org/10.24191/ajue.v16i1.8450>
- Mukhlif, M. I., & Challob, A. I. (2021). Enhancing vocabulary knowledge among secondary school EFL students by using Facebook. *Turkish Online Journal of Distance Education-TOJDE July*, 22(3), 293–309. <https://doi.org/https://doi.org/10.17718/tojde.961852>
- Niño, A. (2015). Language learners perceptions and experiences on the use of mobile applications for independent language learning in higher education. *IAFOR Journal of Education*, 3(SE), 73–84. <https://doi.org/10.22492/ije.3.se.05>
- Parvin, R. H., & Salam, S. F. (2018). The effectiveness of using technology in English language classrooms in government primary schools in Bangladesh. *FIRE: Forum for International Research in Education*, 2(1), 1–15. <https://doi.org/10.18275/fire201502011049>
- Pham, N. T., & Nguyen, H. B. (2018). Teachers' perceptions about PowerPoint use as an ICT tool for teaching vocabulary in Vietnam. *European Journal of Foreign Language Teaching*, 3(4), 68–86. <https://doi.org/10.5281/zenodo.1466108>
- Rabab'ah, G. (2003). Communication problems facing Arab learners of English. *Journal of Language and Learning*, 3(1), 180–197.
- Schacter, J. (1999). The impact of education technology on student achievement: What the most current research has to say. In *Milken Exchange of Education Technology*.
- Shahbaz, M., & Khan, R. M. I. (2017). Use of mobile immersion in foreign language teaching to enhance target language vocabulary learning. *MIER Journal of Educational Studies, Trends and Practices*, 7(1), 66–82. <https://doi.org/https://doi.org/10.52634/mier/2017/v7/i1/1448>
- Takac, V. P. (2009). Vocabulary learning strategies and foreign language acquisition. In *System*. Multilingual Matters Ltd.
- Tsai, C. C. (2020). The effects of augmented reality to motivation and performance in EFL vocabulary learning. *International Journal of Instruction*, 13(4), 987–1000. <https://doi.org/10.29333/iji.2020.13460a>
- Walldén, S., & Soronen, A. (2004). Edutainment: From television and computers to digital television. In *University of Tampere Hypermedia Laboratory* (Issue May). <http://scholar.google.com/scholar?hl=en&btnG=Search&q=intitle:Edutainment+From+Television+and+Computers+to+Digital+Television#0>
- Wu, W., Yen, L., & Marek, M. (2011). Using online EFL interaction to increase confidence, motivation, and ability. *Educational Technology and Society*, 14(3), 118–129.
- Yawiloeng, R. (2020). Second language vocabulary learning from viewing video in an EFL classroom. *English Language Teaching*, 13(7), 76–87. <https://doi.org/10.5539/elt.v13n7p76>
- Yürük, N. (2019). Edutainment: Using Kahoot! as a review activity in foreign language classrooms. *Journal of Educational Technology and Online Learning*, 2(2), 89–101. <https://doi.org/10.31681/jetol.557518>
- Zin, H. M., & Zain, N. Z. (2010). The effects of edutainment towards students' achievements. *Regional Conference on Knowledge Integration in ICT, 1st to 2nd June 2010, (Pp. 64-72), Putrajaya, Selangor, Malaysia*.

Hayat Rasheed Alamri is an EFL Associate Professor, having achieved Senior Fellow's status granted by the Higher Education Academy in 2016. She has a wealth of teaching experience gained over many years at the university level working with undergraduates, high diploma, and Master's students. Hayat has contributed several research articles to international refereed journals and has actively participated in several language conferences, workshops, and symposia.

Suha Mohammed Alhazmi is a Master's degree student majoring in curriculum and methods of teaching English at the College of Education at Taibah University. She was awarded a Bachelor's degree in languages and translation from the faculty of Art and Humanities at Taibah University in the spring semester of the Academic year of 2013-2014 and awarded a General Diploma in Education from the faculty of Education at Taibah University in the Academic year of 2015-2016.