



Exploring perspectives of EFL students on using electronic dictionaries to improve vocabulary learning: a comparative study

Dr Hayat Rashid Alamri ^{a1}, Hind Mousa Hakami ^b

^{a,b}Taibah University, College of Education, Medinah, Saudi Arabia

Abstract

The purpose of this causal-comparative mixed-method study was to investigate and compare Saudi EFL female students' perspectives utilizing e-dictionaries to increase vocabulary learning in the Language Department (ELD) and those in the Preparatory Year Program (PYP) at Taibah University. The participants comprised (143) fourth-year students, while (152) PYP students volunteered in the study. The data was gathered using a 3-point Likert scale and an open-ended question that obtained 38 replies. The results of the descriptive statistics indicated that EFL female students in the ELD and PYP agreed on the advantages of e-dictionaries in terms of speed, time savings, and accurately translating words from L2 to L1 and vice versa. At the same time, EFL female PYP students agreed more on the benefits of using e-dictionaries to verify vocabulary meaning, comprehension, alternatives, extensive definitions and examples, and acquiring accurate pronunciation. On the contrary, EFL female students in the ELD were more enthusiastic about the benefits of e-dictionaries in demonstrating the grammatical usage of new vocabulary and accelerating vocabulary recall and retention. The results of the Mann-Whitney U test revealed that EFL female PYP students outperformed EFL female ELD students. The findings of the open-ended question showed that EFL students preferred "Google translation" and "Mobile Apps" more than "Paper dictionaries" as alternate strategies for vocabulary learning.

Keywords: Perspectives of EFL Students, EFL, Electronic dictionary, vocabulary learning.

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1. Introduction

Vocabulary is one of the essential components of any language. It is considered a medium that conveys meaning and ideas, and facilitates learning listening, speaking, reading, and writing skills. According to Richards and Schmidt (2010), vocabulary is "a set of lexemes, including single words, compound words, and idioms" (p.629). Moreover, Alqhatani (2015) defined vocabulary as "the total number of words that are needed to communicate ideas and express the speakers' meaning" (p.25). Willis (2008) defined vocabulary learning as "an active processing (doing things with words, from acting them

¹ Corresponding author Hayat Rasheed Alamri. ORCID ID.: <https://orcid.org/0000-0000-0000-0000>

E-mail address: hramri@taibahu.edu.sa

out to creating graphic organizers) that brings students ownership of the new vocabulary" (p.81). Hence, vocabularies usually grow with age and serve as a fundamental communication and knowledge acquisition tool. Therefore, individuals will poorly produce written and vocal communication without learning new terms and comprehending their meanings (Marulis & Neuman, 2010).

Takac (2009) indicated that the primary source of L1 vocabulary acquisition is a wide range of scenarios that allow them to explore, confirm, enlarge, or reduce their lexical nets. This method is built on accidental learning from substantial language input rather than intentional formal instruction. Moreover, Takac ascertained that L2 vocabulary could be acquired through exposure to various contexts; therefore, the learner's environment plays a minor impact in the early stages of vocabulary acquisition. The learner's linguistic knowledge, world knowledge, and strategic knowledge will determine the success of contextual inferencing.

Similarly, Schmitt (2000) pointed out that vocabulary displays a complex nature, and the mechanics of its acquisition are still a mystery. Furthermore, adult second/foreign language (ESL/EFL) learners gradually grasp vocabulary over time through a series of exposures.

Sometimes, even with extensive exposure to ESL/EFL real-life situations, difficulties are encountered when teaching vocabulary—putting words into context, mispronouncing words, encouraging students to guess and utilize appropriate vocabulary in any communication type, and activating passive vocabulary.

Thus, some research papers provided vocabulary learning strategies for learners to enhance their knowledge and acquire new words in the target language.

For example, Kacani and Cyfeku (2015) suggested dividing text vocabulary into active and passive categories, properly organizing and focusing repetition, and using the target foreign language in different lesson phases. Moreover, Kartalmis, Örsel, and Yavuz (2017) suggested some vocabulary learning strategies that might address L2 learners' audial, visual, and kinesthetic senses, such as word map, entry journals, concept sort, possible sentences, word hunt, games, context clues, and stories. On the other hand, Susanto (2017) highlighted that the ultimate role of the teacher is to integrate interactive and appropriate vocabulary teaching methods such as using objects, drilling, spelling, active involvement, drawing, picture, mime, expressions, gestures, and through guessing from context.

In response to the importance of vocabulary learning developing them, multiple instructional methods, effective practical strategies, and interactive vocabulary-building activities were examined or implemented to develop ESL/EFL learners' vocabulary learning. For example, using authentic world-based digital images (Dayton, 2013), various mobile phone applications (Shahbaz & Khan, 2017), and personal computers in the language laboratory, and multi-glossed vocabulary cards through WhatsApp (Hassan Taj, Ali, Aslam Sipra, & Ahmad, 2017). Moreover, organizing games-based technology (Shodiyorovna, 2019) and utilizing the Mind Mapping strategy with various characteristics such as colors, images, keywords, and central image (a/p Prabha & Abdul-Aziz, 2020).

1.1 Vocabulary learning in Saudi Context

In response to the importance of vocabulary learning, multiple instructional methods, effective practical strategies, and interactive vocabulary-building activities were examined or implemented to develop ESL/EFL learners' vocabulary learning.

Considerable literature has been developed around the theme of vocabulary learning in the Saudi Arabian context. For example, Khan, Radzuan, Shahbaz, Ibrahim, and Mustafa (2018) explored the opinions of EFL PYP teachers and students on the extent to which lack of vocabulary influences EFL students' performance in listening and speaking skills. The data analysis showed that both teachers and learners indicated that a lack of vocabulary significantly affects students' inability to speak English. Students mentioned that the lack of vocabulary causes multiple problems such as speech anxiety, meaning conveying issues, and environmental interference.

Afzal (2019) investigated the problems faced by Saudi EFL university students in learning vocabulary at Prince Stattam bin Abdulaziz University (PSAU). The results revealed that the EFL students had faced several new vocabulary problems, such as knowing the meanings, pronouncing them, using them properly, and spelling them correctly.

Moreover, Altalhab (2019) examined the vocabulary knowledge of EFL students at King Saud University to explore their ability to communicate in English. The finding showed that most participants achieved low scores in the vocabulary low-frequency level test. Moreover, some participants could not answer any item correctly in low and mid-frequency level tests.

However, further Saudi research articles recognized the critical role of teaching strategies in learning vocabulary. Bahanshal (2015) explored the strategies prioritized by Saudi EFL high school students while learning vocabulary. The findings showed that the preferable methods were guessing words meaning from contexts, using dictionaries, and memorizing new words. Note-taking and seeking help from others were less adopted. Furthermore, Khan (2016) explored the impact of native language use on Saudi students' foreign language vocabulary learning at Qassim University. The study's findings showed that learning the target language's vocabulary is significantly helped by using the translation method of the native language (Arabic) in understanding the meaning of words and expressions of the foreign language (English).

Elashhab (2019) investigated learners' awareness and evaluation of EFL vocabulary learning strategies in their study. The participants were female students enrolled in the Preparatory Year Program (PYP) at Umm Al-Qura University. The result showed that most students claimed that vocabulary learning strategies such as media, movies, internet materials, note-taking, and concept mapping were very useful in their learning process. In contrast, a few PYP students claimed that they prefer to memorize words without exposure to specific vocabulary strategies.

1.2 Using dictionaries in the EFL classroom

Using dictionaries is one of the vocabulary learning strategies. Koca, Pojani, and Jashari-Cicko (2014) examined Albanian EFL University students' use of the English Monolingual Dictionary (EMD) and English Bilingual Dictionary (EBD) dictionaries as

well as their preferences, attitudes, frequency, and challenges. The results demonstrated that 92.5% of the students favored using EBD. Regarding the format, the paper dictionary was most popular (90 %), followed by an electronic dictionary (e-dictionary) (65 %), and an online dictionary (45%). The meaning of the word (97.5%) followed by examples (82.5%), pronunciation and collocation (80%), synonyms (77.5%), spelling (75%), and antonyms (72.5%) were among the 11 items of information students looked up in the dictionary. Moreover, EFL University students encountered some difficulties while using a dictionary, such as finding the correct meaning of a word and the amount of time it took. EMD was used to find the word's meaning, while EBD was used for finding the word equivalent in L2.

Alghamdi and Ahmed (2018) identified that dictionaries allow students to look up the meaning of a word, find the English translation, check the spelling, check the plural of a noun, find out other grammatical information about a word. Likewise, using dictionaries helps learners find the synonyms or antonyms, the collocations, parts of speech, the pronunciation, and examples of using a word in different language settings.

Alhatmi (2019) revealed that EFL Saudi learners have generally reserved the usage of the dictionary technique for words originating from class-related sources, with much fewer lookups reported for words originating from entertainment sources. Regarding lookup word selection criteria, participants frequently preferred to look up words by attempting to guess the meaning of new words from the context before resorting to a dictionary.

1.3 Using e-dictionaries in the EFL classroom

There has been an increasing interest in using e-dictionaries to learn English in the past few years. Nesi (2000) stated that e-dictionary refers to "any reference material stored in electronic form that gives information about the spelling, meaning, or use of words" (p.771). Barham (2017) and Shen (2013) highlighted that students might benefit from using e-dictionaries in all language aspects such as reading, writing, vocabulary, and pronunciation. Rezaei and Davoudi (2016) demonstrated that the emergence of e-dictionaries had added a valuable resource for vocabulary learning and development regarding vocabulary learning. Zou, Xie, and Wang (2015) found a significant effect of e-dictionaries in facilitating learning and retention.

A considerable amount of literature has been published on the use of e-dictionaries to enhance vocabulary learning. For example, Rahimi and Miri (2014) conducted an experimental study investigating the mobile dictionary's impact on the language learning of lower-intermediate students. The findings showed that EFL learners who used the mobile dictionary inside and outside the classroom to learn English had improved their language ability more than those who used printed dictionaries.

Tananuraksakul (2015) explored how Cambridge Dictionaries Online helps Thai EFL undergraduate students' autonomy in a writing classroom. The findings revealed that students showed positive attitudes toward and motivation in learning English autonomously. Moreover, the participants agreed that Cambridge Dictionaries were useful, practical, and trendy.

Due to the portability and accessibility of mobile dictionaries, ensuring learning

opportunities regardless of time and space, Aslan (2016) elaborated on using mobile dictionaries in vocabulary teaching. The Turkish EFL university students demonstrated that mobile dictionaries had become an indispensable tool of language, particularly vocabulary learning and teaching.

Ortega and González (2016) explored the impact of electronic pocket dictionaries on EFL university students' vocabulary learning strategies in Hidalgo. The findings revealed that portable entertainment devices (PEDs) were the most used dictionaries, especially those installed on the students' cellular phones. The results indicated that students still preferred printed dictionaries despite having electronic options. The results suggest a need to promote the proper and effective use of dictionaries, especially PEDs, to improve vocabulary learning.

Zheng and Wang (2016) found that e-dictionaries have become more attractive, accepted, and favored by Chinese EFL University learners at different levels. They attributed this acceptance of e-dictionaries to some factors. For example, e-dictionaries facilitate language learning activities inside and outside the language learning classroom. Since they are fast, the limited class time can be used more efficiently. E-dictionaries allow students to rapidly find necessary information about new words and download them through supplementary online websites. Moreover, they assist beginners in looking up the meanings of new vocabulary when reading a text. Moreover, e-dictionaries provide pronunciation and recording functions to allow students to practice speaking English.

The findings of an exploratory study carried out by Barham (2017) exhibited that participants expressed positive attitudes and perspectives toward utilizing mobile dictionaries in learning new vocabulary. Moreover, they highlighted that using a mobile dictionary was mostly for pronunciation, spelling, writing, and finding the meaning of new vocabulary.

Despite the benefits of e-dictionaries, some other studies (Dashtestani, 2013; Maslawati et al., 2017; Zheng & Wang, 2016) reported that students face problems and difficulties using e-dictionaries. For instance, some e-dictionaries lack access to suitable versions or proper word definitions. Besides, some students have limited experience dealing with the different features of e-dictionaries. Moreover, teachers are sometimes against using e-dictionaries in the classrooms because they assume they make students lazy and obstruct their ability to guess the meaning of unfamiliar words, and they could be noisy and distracting during lessons.

1.4 Using dictionaries for vocabulary learning in the Saudi context

Over the past century, there has been a dramatic increase in Saudi studies regarding vocabulary learning. Al-Jarf (2007) investigated the effects of online instruction on Saudi EFL novice students' vocabulary achievement. The participants were majoring in Translation, at King Saud University. The post-test results revealed that EFL students made higher gains due to the posted vocabulary websites such as One Look Dictionary and Cambridge Dictionary. The results of the open-ended question showed that learning vocabulary via an online course was valuable and fun.

Moreover, Fageeh (2014) investigated the effects of using an online dictionary to present an etymological analysis of new vocabulary items using thesaurus's accompanying facilities, encyclopedia, and web developing vocabulary building skills and

inducing positive attitudes towards vocabulary learning. The study sample consisted of 83 Saudi EFL male students enrolled in the English Department, King Khalid University. The result showed that online dictionaries helped treatment group students learn more about words, cultural usages, denotations, and connotation loadings of lexicon and word usage.

Sabbah and Alsalem (2018) explored the knowledge of EFL students of using online dictionaries and term banks. The participants were 50 Saudi EFL female undergraduate students who studied at Prince Sultan University. The result showed that the top reasons for using online dictionaries and term banks were to: check the word meaning, translate from English to Arabic, and check for synonyms. Fewer students selected using online dictionaries to translate from Arabic to English or check the spelling of words. Only two students used online dictionaries to look for example sentences where a particular term is used. The participants indicated that online dictionaries were quick, easy to use, updatable, and most of them were free of charge.

El-Sawy (2019) conducted a study at Al-Jouf University on the impact of utilizing e-dictionaries in combination with student-created dictionaries on EFL students' pronunciation and vocabulary usage. The results of the pronunciation and vocabulary tests demonstrated that electronic and student-created dictionaries helped learners improve their pronunciation and vocabulary usage. Moreover, participants were willing to use electronic and student-created dictionaries in their vocabulary acquisition. Based on the results, the quickness of obtaining the meaning and accurate pronunciation of new vocabularies were the most often mentioned advantages of e-dictionaries.

According to the findings of descriptive quantitative research done by Khalifa (2021), most Saudi university EFL students utilized bilingual dictionaries only to check word meanings. Although most participants agree that dictionaries are essential for language acquisition, most do not employ dictionaries to look up abbreviations, pronunciations, collocations, and parts of speech. However, individuals face several issues while using paper dictionaries, such as losing time searching for terminology. As a result, learners choose e-dictionaries because of their quick search and time-saving capabilities.

To summarize, the preceding literature has stressed the value of dictionaries in assisting vocabulary learning. Although more recent attention has been placed on the use of e-dictionaries in EFL classes, it is worth noting that both paper and e-dictionaries share comparable benefits. The researchers were able to compile a list of around 20 features, 13 of which were shared, and just 6 of which were predominantly utilized through e-dictionaries (see Figure 1).

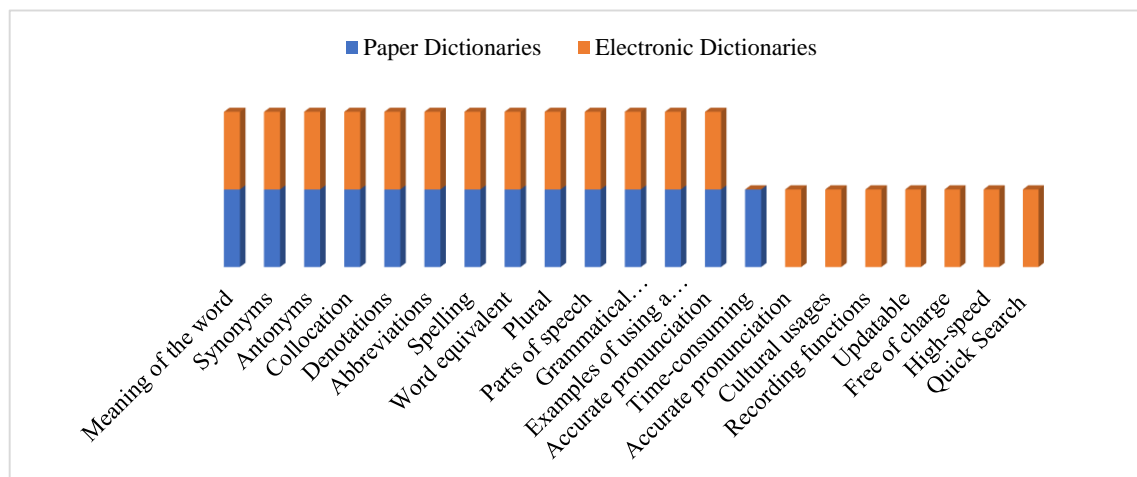


Figure 1. Summary of the most common characteristics of paper and e-dictionaries

2. Problem Statement

Yunus and Saifudin (2019) claimed that vocabulary learning might support second/foreign language learners' listening, speaking, reading, and writing skills. a/p Prabha and Abdulaziz (2020) and Shodiyorovna (2019) revealed that the absence of adequate vocabulary knowledge restricts students' understanding of language and hinders their capacity to develop their knowledge or learn foreign languages.

According to Sokip (2020), second/foreign language learners face challenges in learning language skills and language aspects of a non-native language. However, Susanto (2017) stated that although learning vocabulary plays a vital role in acquiring a target language, it is still considered problematic for EFL students in all grades. Likewise, Saudi EFL university learners face problems in learning English vocabulary, such as recognizing the word meaning, spelling, pronunciation, and use in different contexts (Afzal, 2019; Altalhab, 2019; Bahanshal, 2015; Elashhab, 2019; Khan et al., 2018; Khan, 2016).

Due to the widespread nature of technological inventions and the accessibility to mobile computers and smart devices, EFL university instructors and students have approached language applications, websites, and software as valuable language resources. One of these digital resources is e-dictionaries (Rezaei & Davoudi, 2016). Several large-scale studies have been carried out to investigate the role or effect of using e-dictionaries in improving vocabulary (Ortega & González, 2016; Rezaei & Davoudi, 2016; Zheng & Wang, 2016; Zou, Xie, & Wang, 2015). However, some efforts have been made (Al-Jarf, 2007; El-Sawy, 2019; Fageeh, 2014; Sabbah & Alsalem, 2018) to use e-dictionaries at the Saudi university level.

In Saudi Arabia in general, and at Taibah University in particular, the English Language Department (ELD) has granted students a Bachelor of Arts in English language degree (128 credit hours) with specialization (92 credit hours) distributed to compulsory courses (86 credit hours) and elective courses (6 credit hours). Several specialized areas are covered: Translation, Linguistics, Professional Writing, Literature, Grammar, and Listening and Speaking Skills. Additionally, the program comprised Advanced Reading Strategies and Communication Skills and Strategies and concentrated grammar courses.

The Preparatory Year Program (PYP) is responsible for developing the English proficiency required in a university where English is the language of instruction. This intensive one-year program is designed to be admitted for four hours of daily English instruction. The total study hours per semester are between 160–192, depending on the number of weeks each semester. The course is based on the textbook "Q: Skills for Success, Second Edition," a six-level paired skills series. It is specifically designed to help students develop the necessary language skills, reading, listening, writing, speaking, grammar, and vocabulary, to succeed in their academic studies.

Both programs are rigorous, challenging, and necessitate hard work and determination from students. They need to take advantage of all tools that assist language learning and which complement the teachings strategies. Therefore, a language dictionary is one of the commonly used tools.

The purpose of the current causal-comparative study is to explore and compare Saudi EFL female students' perspectives on using e-dictionaries to improve vocabulary learning in the ELD and those in the PYP at Taibah University.

2.1 Research questions

This study attempts to answer the following research questions:

1. What are EFL female students' perspectives in the ELD at Taibah University using e-dictionary to improve vocabulary learning?
2. What are EFL female students' perspectives in the PYP at Taibah University using e-dictionary to improve vocabulary learning?
3. What are the differences in using e-dictionary to improve vocabulary learning between the perspectives of EFL female students in the ELD and those in the PYP at Taibah University?
4. What alternative tactics are used by EFL university students to improve vocabulary learning?

2.2 Research hypothesis

H1. There are no statistically significant differences at 0.05 between EFL students' perspectives on using e-dictionary to improve vocabulary learning in the ELD and those in the PYP.

3. Methodology

The current causal-comparative research data was gathered using a mixed-method approach that involves quantitative (a questionnaire) and qualitative (an open-ended question) methods to explore and compare Saudi EFL female students' perspectives on using e-dictionaries to improve vocabulary learning.

3.1 Population and research sample

This study comprises all the language students enrolled in the ELD and the PYP at Taibah University in Madinah, Saudi Arabia, during the 2019–2020 academic year. The ELD participants were (143) volunteers who were in the fourth year, whereas (152)

students volunteered from the PYP. The participants to the open-ended question were 38 students who were asked if they are not using the electronic dictionary, what are the alternatives to improve vocabulary learning?

3.2 Instrumentation

In response to the study's objective and based on some previously reviewed literature (Bahanshal, 2015; Fageeh, 2014; Sabbah & Alsalem, 2018), the researchers devised a 20-item questionnaire as the primary research instrument. The questionnaire explores Saudi EFL learners' perspectives on using e-dictionary to improve vocabulary learning.

The participants were expected to rank their perspectives on a 3-point Likert scale (Disagree=1, Neutral=2, Agree=3). An open-ended question was designed and submitted separately to elicit other alternatives. The responses could yield insights, increase the questionnaire items' validity, and offer further suggestions.

3.3 Validity

Moreover, the questionnaire was assessed by three expert EFL instructors to ensure its construct and content validity. Accordingly, a few language changes were made following their suggestions, and one item was added to develop a 21-item questionnaire.

3.4 Reliability

A pilot study was conducted with 31 Saudi EFL students—14 students belonging to the ELD and 17 students from the PYP—to compute the questionnaire's reliability and internal consistency to measure the extent to which the questionnaire's 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 the total and 20 out of 21 items with range values ($r = .904-.436$). Item 8 displayed low (.070) and non-significant results. Hence, it was deleted. The final version of the questionnaire consisted of 20 items.

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 20 items (0.970). The estimated reliability of the analyzed items was above the accepted value of 0.7.

3.5 Data collection

Data were collected two times during the study period. First, the researcher converted the physical questionnaire to e-format. The link was sent officially through their departments to Saudi EFL female students in the ELD and the PYP on January 2nd, 2020. Second, after collecting the questionnaire responses, the open-ended question was submitted. Some participants responded using their native language (Arabic) and expressed their experience regarding alternative methods to vocabulary learning.

3.6 Data analysis

The data from the questionnaire was examined using descriptive statistics (frequencies, percentages, means, and standard deviations). Due to the nature of the research design and collected data, the Mann-Whitney U test was used as the primary inferential statistical method to address the third research question and test the hypothesis. The qualitative data obtained via the open-ended question were categorized and summarized using frequencies and percentages. Statistical analysis was performed using SPSS software (version 25).

4. Results

This mixed-method study compared Saudi EFL female students' perspectives on using e-dictionary to improve vocabulary learning in the ELD and those in the PYP at Taibah University. Descriptive and inferential statistics were used to answer the research questions.

4.1 Results of the students' perspectives in the ELD on using e-dictionary

Descriptive statistics were computed to answer the first research question, "What are EFL female students' perspectives in the ELD at Taibah University using e-dictionary to improve vocabulary learning?" (see Table 1). The results ranked from high to low frequency of use by considering mean (M) and standard deviation (S.D.) for each item of the questionnaire's responses.

Table 1. Descriptive results of the students' perspectives in the ELD on using e-dictionary

No.	Statements	The Scale			Mean	S.D.	Level
		A	N	D			
1.	Provide a quick search of word meaning.	100 (69.9)	9 (6.3)	34 (23.8)	2.46	0.85	Agree
2.	Provide phonetics forms of the words.	99 (69.2)	10 (7.0)	34 (23.8)	2.45	0.85	Agree
3.	Increase vocabulary recall and retention.	93 (65.0)	18 (12.6)	32 (22.4)	2.43	0.83	Agree
4.	Encourage language learners to be familiar with alternatives.	94 (65.7)	16 (11.2)	33 (23.1)	2.43	0.84	Agree
5.	Enable better pronunciation with authentic recorded voice.	96 (67.1)	13 (9.1)	34 (23.8)	2.43	0.85	Agree
6.	Enable access to a large amount of vocabulary in a short time.	98 (68.5)	9 (6.3)	36 (25.2)	2.43	0.87	Agree
7.	Provide a quick translation of unknown words into Arabic.	95 (66.4)	13 (9.1)	35 (24.5)	2.42	0.86	Agree
8.	Save time and effort while looking up new words.	93 (65.0)	16 (11.2)	34 (23.8)	2.41	0.85	Agree
9.	Offer accurate and non-intrusive vocabulary knowledge.	93 (65.0)	16 (11.2)	34 (23.8)	2.41	0.85	Agree
10.	Afford the option to save and download words.	90 (62.9)	22 (15.4)	31 (21.7)	2.41	0.83	Agree
11.	Facilitate vocabulary learning as well as text comprehension.	93 (65.0)	14 (9.8)	36 (25.2)	2.40	0.87	Agree
12.	Provide sound like a native	90	19	34	2.39	0.85	Agree

	speaker for pronunciation.	(62.9)	(13.3)	(23.8)			
13.	Engage learners in reading and listening when checking words.	92 (64.3)	12 (8.4)	39 (27.3)	2.37	0.89	Agree
14.	Supply users with examples of vocabulary use.	90 (62.9)	16 (11.2)	37 (25.9)	2.37	0.87	Agree
15.	Support with detailed definitions of any words.	89 (62.2)	18 (12.6)	36 (25.2)	2.37	0.86	Agree
16.	Offer rich information on various aspects of the new vocabulary.	86 (60.1)	20 (14.0)	37 (25.9)	2.34	0.86	Agree
17.	Resource information about the origin of the words.	91 (63.6)	10 (7.0)	42 (29.4)	2.34	0.90	Agree
18.	Extend audio and visual information about the words.	85 (59.4)	20 (14.0)	38 (26.6)	2.33	0.87	Neutral
19.	Supply learners with information about the grammatical use of words.	86 (60.1)	18 (12.6)	39 (27.3)	2.33	0.88	Neutral
20.	Supply with different pronunciation accents (U.S., U.K.).	78 (54.5)	26 (18.2)	39 (27.3)	2.27	0.87	Neutral
Total					2.39	0.86	Agree

Table 1 shows that 17 items revealed substantial agreement between Saudi EFL female students in the ELD at Taibah University that e-dictionaries quickly search word meaning (Item 1, $M=2.46$; $SD=0.85$) and provide phonetics forms of the words (Item 2, $M=2.45$; $SD=0.85$). Identical mean scores ($M=2.43$) indicated that they agreed that using e-dictionaries could increase vocabulary recall and retention, encourage familiarity with alternatives, enable better pronunciation, and facilitate accessibility to a large amount of vocabulary in a short time. Moreover, the findings revealed a substantial agreement (Item 7, $M=2.42$; $SD=0.86$) concerning the value of e-dictionary in providing a quick translation of unknown words into Arabic. Furthermore, there was an equally strong agreement on Items 8, 9, and 10 ($M=2.41$) concerning the usefulness of e-dictionaries for saving time, offering accurate vocabulary knowledge, and affording saving and downloading words. There was a substantial agreement (Item 11, $M=2.40$; $SD=0.87$) concerning the value of e-dictionaries in facilitating vocabulary learning and text comprehension (Item 12, $M=2.39$; $SD=0.85$) in providing sound like a native speaker for pronunciation. Besides, there was an equally strong agreement on items 12, 14, and 15 ($M=2.37$) concerning the usefulness of e-dictionary for engaging learners in reading and listening when checking words, supplying examples of vocabulary use, and supporting with support detailed definitions of words. Likewise, identical mean scores ($M=2.34$) indicated they agreed that using e-dictionary can offer rich information on various aspects of the new vocabulary and resources about the origin of the words.

The results posited equal mean scores for Items 18 and 19 ($M=2.33$) that the Saudi EFL female students in the ELD were uncertain that e-dictionary extends audio and visual information about the words or supplies information about the grammatical use of words. Likewise, the mean score for Item 20 ($M=2.27$; $SD=0.87$) also showed uncertainty that e-dictionary could supply with different pronunciation accents.

4.2 Results of the students' perspectives in the ELD on using e-dictionary

Descriptive statistics were computed to answer the second research question, "What are EFL female students' perspectives in the PYP at Taibah University using e-dictionaries to improve vocabulary learning?" (see Table 2). The results ranked from high to low

frequency of use by considering mean (M) and standard deviation (S.D.) for each item of the questionnaire's responses.

Table 2. Descriptive results of the students' perspectives in the PYP on using e-dictionary

No.	Statements	The Scale			Mean	S.D.	Level
		A	N	D			
1.	Enable better pronunciation with authentic recorded voice.	108 (71.1)	28 (18.4)	16 (10.5)	2.61	0.67	Agree
2.	Offer accurate and non-intrusive vocabulary knowledge.	111 (73.0)	21 (13.8)	20 (13.2)	2.60	0.71	Agree
3.	Facilitate vocabulary learning as well as text comprehension.	106 (69.7)	27 (17.8)	19 (12.5)	2.57	0.71	Agree
4.	Extend audio and visual information about the words.	101 (66.4)	35 (23.0)	16 (10.5)	2.56	0.68	Agree
5.	Save time and effort while looking up new words.	109 (71.7)	18 (11.8)	25 (16.4)	2.55	0.76	Agree
6.	Provide sound like a native speaker for pronunciation.	107 (70.4)	21 (13.8)	24 (15.8)	2.55	0.75	Agree
7.	Offer rich information on various aspects of the new vocabulary.	104 (68.4)	28 (18.4)	20 (13.2)	2.55	0.72	Agree
8.	Supply with different pronunciation accents (U.S., U.K.).	96 (63.2)	35 (23.0)	21 (13.8)	2.49	0.73	Agree
9.	Supply users with examples of vocabulary use.	95 (62.5)	33 (21.7)	24 (15.8)	2.47	0.75	Agree
10.	Afford the option to save and download words.	101 (66.4)	16 (10.5)	35 (23.0)	2.43	0.84	Agree
11.	Engage learners in reading and listening when checking words.	91 (59.9)	34 (22.4)	27 (17.8)	2.42	0.78	Agree
12.	Provide a quick translation of unknown words into Arabic.	91 (59.9)	34 (22.4)	27 (17.8)	2.42	0.78	Agree
13.	Increase vocabulary recall and retention.	89 (58.6)	28 (18.4)	35 (23.0)	2.36	0.83	Agree
14.	Encourage language learners to be familiar with alternatives.	84 (55.3)	38 (25.0)	30 (19.7)	2.36	0.79	Agree
15.	Resource information about the origin of the words.	82 (53.9)	35 (23.0)	35 (23.0)	2.31	0.82	Neutral
16.	Supply learners with information about the grammatical use of words.	77 (50.7)	44 (28.9)	31 (20.4)	2.30	0.79	Neutral
17.	Provide a quick search of word meaning.	81 (53.3)	29 (19.1)	42 (27.6)	2.26	0.87	Neutral
18.	Enable access to a large amount of vocabulary in a short time.	73 (48.0)	38 (25.0)	41 (27.0)	2.21	0.84	Neutral
19.	Provide phonetic forms of the words.	71 (46.7)	38 (25.0)	43 (28.3)	2.18	0.85	Neutral
20.	Support with detailed definitions of any words.	56 (36.8)	52 (34.2)	44 (28.9)	2.08	0.81	Neutral
Total					2.41	0.77	Agree

Table 2 indicates that 14 items revealed substantial agreement among the Saudi

EFL female students in the PYP at Taibah University that e-dictionary enables better pronunciation with authentic recorded voice (Item 1, $M=2.61$; $SD=0.67$) and offer accurate and non-intrusive vocabulary knowledge (Item 2, $M=2.60$; $SD=0.71$). The findings also showed a substantial agreement (Item 3, $M= 2.57$; $SD=0.71$) concerning the value of e-dictionary in facilitating vocabulary learning and text comprehension (Item 4, $M= 2.56$; $SD=0.68$) in extending audio and visual information about the words. There was an equally strong agreement on Items 5, 6, and 7 ($M=2.55$) concerning the usefulness of e-dictionary for saving time, providing sound like a native speaker for pronunciation, and offering rich information on various aspects of the new vocabulary. The findings also showed a substantial agreement (Item 8, $M= 2.49$; $SD= 0.73$) concerning the value of e-dictionary in supplying with different pronunciation accents, (Item 9, $M= 2.47$; $SD= 0.75$) in providing examples of vocabulary us, and (Item 10, $M= 2.43$; $SD= 0.84$) in affording the options to save and download words. Moreover, identical mean scores ($M=2.42$) indicated they agreed that using e-dictionary can engage learners in reading and listening when checking words and provide a quick translation of unknown words into Arabic. Likewise, there was an equal agreement on Items 13 and 14 ($M=2.36$) concerning the usefulness of e-dictionaries for increasing vocabulary recall and retention and encouraging language learners to be familiar with word alternatives.

The results show that the participants scored "Neutral" response that e-dictionary is considered as a resource of information about the origin of the words ($M=2.31$; $SD=0.82$), supply learners with information about the grammatical use of words ($M=2.30$; $SD=0.79$), provide a quick search of word meaning ($M=2.26$; $SD=0.87$), and enable access to a large amount of vocabulary in a short time ($M=2.21$; $SD=0.84$). Similarly, the participants were unsure that e-dictionary might provide phonetics forms of the words (Item 19, $M= 2.18$; $SD= 0.85$) and support with detailed definitions of any words. (Item 20, $M= 2.08$; $SD= 2.08$).

4.3 Results of the differences in using e-dictionary between ELD and students' perspectives

The Mann-Whitney U test was used to answer the third research question, "What are the differences in using e-dictionaries to improve vocabulary learning between the perspectives of EFL female students in the ELD and those in the PYP at Taibah University? It is employed to distinguish the differences between the views of ELD and PYP students regarding the use of an e-dictionary to improve vocabulary learning.

Table 3. Students' perspectives regarding using e-dictionary to improve vocabulary learning

Group	N	Mean	S.D.	Mean Rank	Sum of Ranks	Mann-Whitney U	Z	Asymp. Sig. (2-tailed)	Effect size
ELD students	143	2.39	0.86	160.32	22925.50	9106.500	-2.415	.016	-.14
PYP students	152	2.41	0.77	136.41	20734.50				

Results of the Mann-Whitney U-test yielded significant differences. EFL female

students in the PYP performed significantly higher than the EFL female students in the ELD ($M = 2.41$, $n = 152$), $U = 9106.500$, $z = -2.415$, $p = .016$, $r = -.14$ regarding their perspectives on using e-dictionary to improve vocabulary learning. Therefore, the null hypothesis is rejected.

4.5 Results of the open-ended question

The quantitative data analysis below is the result of an open-ended question administered to EFL female students in the ELD and those in the PYP at Taibah University. The goal of the open-ended question was to capture their thoughts about the most common alternative tactics used to improve vocabulary learning. The data collected provided the researchers with opportunities to gain a deeper insight into the students' most common preferences to enhance their vocabulary learning (see Figure 1).

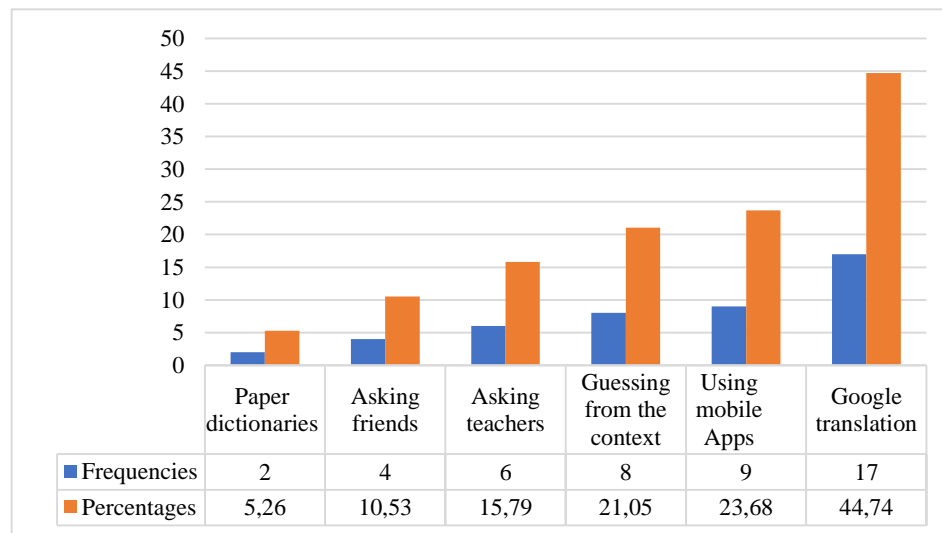


Figure 2. Alternative vocabulary learning tactics used by EFL university students

As shown in Figure (2), about (44.74 %) reported that the most common alternative tactic used to improve vocabulary learning is "Google translation." Almost a quarter of the responses (23.68 %) said that "Mobile Apps" is one of the alternatives to check vocabulary. The EFL students ranked "Guessing the meaning based on the context" as the third alternative tactic with a percentage of (21.05 %). Other responses to this question included students' preference to "Ask teachers about the meaning" and "Ask friends" with percentages (15.79 %) and (10.53 %) respectively. On the contrary, the results indicate that EFL students have extremely little preference to use "Paper dictionaries" as an alternative tactic for vocabulary learning with a percentage of (5.26 %).

5. Discussions

The first and second questions in this study sought to determine the perspectives of EFL female students in the ELD and PYP on using e-dictionary to improve vocabulary

learning. Based on the results, generally, both EFL female students in the ELD and PYP seem aware of the importance of acquiring vocabulary through different tactics, and e-dictionary is one of them. These results are consistent with those of Bahanshal (2015), Khan et al. (2018), Schmitt (2000), and Takac (2009), who reported the importance of adapting tactics to exposure to new vocabulary, increasing language learning, and reducing anxiety and misconceptions. Furthermore, Aslan (2016), Rahimi and Miri (2014), and Tananuraksakul (2015) discovered that mobile dictionaries increased EFL learners' language skills more than paper dictionaries since they were convenient, functional, and trendy. In contrast, the positive general perspectives on the benefits of e-dictionaries are contradictory with those of Ortega and González (2016), who reported that EFL university students preferred printed dictionaries despite having the option to use portable entertainment devices (PEDs)

Considering the statements referring to the benefits of e-dictionaries being fast and saving time while searching for the meaning of words, EFL students in the ELD and PYP agreed on those advantages to improve vocabulary learning. These results may be attributed to the primary benefit of e-dictionaries which is saving time during the searching process, while "time-consuming" is considered the main disadvantage of the paper dictionary (see Figure 1). Another possible explanation for these results is that the use of online dictionaries and smartphone apps increases dramatically as internet access improves. Besides, Taibah University provided wireless internet access everywhere on campus, making it possible to use smart devices and computers during classes. These results are in agreement with those obtained by El-Sawy (2019), Khalifa (2021), Sabbah and Alsalem (2018), and Zheng and Wang (2016), who reported that learners prefer e-dictionaries because they are fast, easy to use, and have time-saving capabilities. Moreover, Khalifa (2021) revealed that learners stated that using paper dictionaries is time-consuming when searching for terminologies.

On the other hand, more than their counterparts, EFL female students in the PYP agreed more on the benefits of e-dictionaries to check vocabulary meaning, comprehension, alternatives, detailed definitions, word originality, and examples. They demonstrated priorities to those advantages of e-dictionaries to improve vocabulary learning. These findings might be attributed to the intensive English language course in the prep year, forcing students to use e-dictionaries in classrooms for four hours every day to engage in unit tasks and drills. Furthermore, as a skill-based course, the intensive English course focuses on developing students' language skills and competencies by exposing them to a wide range of vocabulary and grammatical structures to engage in vocabulary, grammar, skills practice, and alternate unit assignments. These results correspond to those obtained by Alhatmi (2019), Barham (2017), Fageeh (2014), Koca, Pojani, and Jashari-Cicko (2014), Sabbah and Alsalem (2018), and Zheng and Wang (2016), who discovered that using e-dictionary may significantly promote language understanding and boost incidental vocabulary acquisition. Moreover, they found that e-dictionary is a more successful vocabulary learning technique than other tactics such as contextual guessing.

Unsurprisingly, when EFL female students in the ELD were compared to those in the PYP, they showed a similar preference for utilizing e-dictionaries to obtain a precise translation of words from L2 to L1 and vice versa. This result may be explained by the

fact that the fundamental role of utilizing dictionaries is to translate from L2 to L1 and vice versa, especially in English, where many words have multiple meanings that non-native students cannot recall. As a result, e-dictionaries usually provide students with immediate and equivalent English or Arabic translation to better comprehend the new words. Another possibility is that EFL students in the ELD and PYP would be able to participate successfully in tasks and activities if they could figure out the meaning of words in either L1 or L2. Furthermore, the findings of the open-ended question displayed in Figure 2 indicated that the most popular alternative method used to increase vocabulary learning is Google translation, demonstrating that translation is the essential element of utilizing e-dictionaries.

It is interesting to note that the results of a study conducted by Khan (2016) found that using the translation method of L1 (Arabic) in understanding the meaning of words and expressions of L2 (English) affected learning language vocabulary significantly. Likewise, Alghamdi and Ahmed (2018) proved that dictionaries enable students to look up the meaning of a word, verify the spelling, find out additional grammatical information, and, most importantly, locate the English translation of a word.

According to the results, all statements about receiving native-speaker pronunciation with varied accents, phonetic forms of a word, and discovering audio and visual materials or extended listening and reading resources were more critical to EFL female students in the PYP than their ELD counterparts. These results may be attributed to the primary benefits of e-dictionaries which are providing accurate pronunciation and recording functions (see Figure 1). One possible explanation for these results is that the six-level paired skills series includes extra pages of reading, speaking, or listening comprehension in each unit and employs a question-centered approach that encourages students to use critical thinking skills such as making inferences or synthesizing information from multiple texts. This strategy aims to help EFL students improve their language skills. Therefore, EFL female students in the PYP are especially in need of using e-dictionaries to learn proper pronunciation and exposure to other audio and visual resources to encourage them to practice oral and auditory exercises.

Furthermore, employing oral and aural resources supplied by e-dictionaries may assist EFL PYP students in understanding what they are listening to and feel comfortable and confident speaking and conversing in English. Besides, they have limited time to access the paper dictionaries due to their busy schedules. Thus, they prefer to focus on their needs from the e-dictionary, which facilitates their learning. These results further support the idea of Elashhab (2019), who claimed that vocabulary learning strategies such as media, movies, and internet materials were highly beneficial to students' learning. Besides, these results seem to be consistent with other research (Alghamdi & AlAhmed, 2018; Barham, 2017; El-Sawy, 2019; Khalifa, 2021; Koca et al., 2014; Zheng & Wang, 2016), which discovered that accurate pronunciation and recording functions were the most frequently mentioned benefits of e-dictionaries because they allow students to practice oral and aural English language skills.

Contrary to the results of the abovementioned studies, EFL students in the ELD reported uncertainty using e-dictionary to extend audio and visual information about the words and provide different pronunciation accents. A possible explanation for these

results may be that EFL students in the ELD have plenty of chances to practice pronunciation, phonetic features, and vocabulary knowledge. They may also have opportunities to practice the pronunciation and phonetic forms of words.

EFL female students in the ELD agreed more on the benefits of e-dictionaries to exemplify the grammatical use of new words and accelerate vocabulary recall and retention. It appears that these results are due to ELD students taking a variety of English classes, including linguistics, literature, and writing skills, in which they must compose essays, articles, research papers, and reviews. As a result, they must consult e-dictionaries frequently to check whether that word exists, confirm its spelling, find a synonym or antonym, and get examples of the new words in structured sentences with correct grammar. Furthermore, these participants may have benefited from the particular characteristics of e-dictionaries, such as quick search and updatable material and definitions, which save students time and assist them in completing their duties and might increase word memorization and retention. These findings indicate the association between utilizing dictionaries and boosting grammatical vocabulary usage, and they are consistent with previous research (Alghamdi & AlAhmed, 2018; Barham, 2017; El-Sawy, 2019; Fageeh, 2014; Khalifa, 2021; Koca et al., 2014; Sabbah & Alsalem, 2018; Zheng & Wang, 2016). According to the findings of these studies, dictionaries and e-dictionaries provide various types of grammatical information about words that are necessary for vocabulary learning, such as meaning (semantics), pronunciation (phonology), collocations (syntax), and substructure for derivational morphology (distinguishing affixes). Language learners typically use dictionaries for one or more of the preceding primary grammatical functions.

In terms of comparing EFL students' perceptions on utilizing an e-dictionary to improve vocabulary learning, EFL female students in the PYP outperformed EFL female students in the ELD. These findings might be related to the nature of the intensive language course that PYP students were subjected to in a short time and with heavy schedules. As a result, PYP students work hard to spend time and use technology to simplify studying and performing their duties. As a result, prep year students may have a higher need for the usage of e-dictionaries than ELD students who are not highly anxious about losing time to complete long-term course tasks.

The results of the open-ended question provided deep insights and understanding of the most common alternative tactics used to improve vocabulary learning, utilized by the ELD and the PYP at Taibah University. According to the findings, the frequently utilized alternative strategies to boost vocabulary acquisition are "Google translation," "Mobile Apps," "contextual guessing," "Ask teachers," and "Ask friends," respectively. These findings indicate that EFL students prefer technology-assisted vocabulary acquisition. According to the analyzed data, EFL students like to ask professors or friends if they can't check any online dictionary. Nowadays, EFL students, as digital learners, demand simple, quick, and convenient language training. These findings are comparable with those of other research (Al-Jarf, 2007; Bahanshal, 2015; Elashhab, 2019; Khalifa, 2021; Rahimi & Miri, 2014), which found that language learners favored various approaches for facilitating vocabulary learning. One of those suggested strategies was the use of an e-dictionary. On the other hand, the open-ended question results contradict Ortega and González (2016), who discovered that students preferred paper dictionaries even when

electronic choices were available.

6. Conclusion

The purpose of this causal-comparative mixed-method study at Taibah University was to investigate and compare Saudi EFL female students' perceptions on utilizing e-dictionaries to increase vocabulary learning in the ELD and those in the PYP. The participants comprised (143) fourth-year students, while (152) PYP students volunteered in the study. The data on their perspectives toward utilizing e-dictionaries was gathered using a 3-point Likert scale and an open-ended question that obtained 38 replies.

The findings of the perspectives of EFL female students in the ELD and PYP on utilizing e-dictionaries to assist vocabulary learning indicated that both of them appear to be aware of the necessity of obtaining vocabulary through its use. Furthermore, both groups agreed on the advantages of e-dictionaries in terms of speed and time savings while looking up the meaning of words. At the same time, EFL female PYP students agreed more on the benefits of using e-dictionaries to verify vocabulary meaning, comprehension, alternatives, extensive definitions, word uniqueness, and examples. Furthermore, both groups preferred to use e-dictionaries to translate words from L2 to L1 and vice versa accurately.

According to the findings, all statements concerning acquiring accurate pronunciation and discovering audio and visual materials were more critical to EFL female PYP students than their ELD counterparts. On the contrary, EFL female students in the ELD were more enthusiastic about the benefits of e-dictionaries in demonstrating the grammatical usage of new vocabulary and accelerating vocabulary recall and retention. When comparing EFL students' impressions of using an e-dictionary to increase vocabulary learning, EFL female PYP students outperformed EFL female ELD students. The findings of the open-ended question revealed that "Google translation," "Mobile Apps," "contextual guessing," "Ask teachers," and "Ask friends" were the most often used alternative ways to increase vocabulary learning. In contrast, "Paper dictionaries" were the least chosen alternate strategy for vocabulary learning.

Some practical implications were derived based on these results. First, EFL students should focus on gaining knowledge and practice to obtain the full benefits of using e-dictionaries as a valuable resource for fostering learner autonomy. The EFL student should be aware of the many types of online dictionaries (Monolingual dictionaries) that are specifically created to fulfill the needs of a non-native English speaker. Cambridge Dictionary, Merriam-Webster Dictionary, Macmillan Dictionary, Collins Online Dictionary, and Longman English Dictionary are a few examples. These dictionaries provide EFL students with a library of terms and their meanings, spellings, collocations, examples of use, proper pronunciation, other definitions, and other helpful information.

Second, EFL instructors must design activities, tasks, and assignments to encourage—and sometimes even force—EFL students to take risks and use new vocabulary because they sometimes believe they can get by with what they already know and are not challenged enough in class to take risks and use new words. When there is an emphasis on vocabulary enhancement, students will rise up to the challenge and learn to

improve English vocabulary to match their needs. EFL teachers should vary the teaching strategies, methods, and approaches they utilize to help their students improve their vocabulary learning. Thus, instructors should introduce their students to various forms of e-dictionaries if they assume that they are the most appropriate teaching technique for the learners' level of expertise, competence, and stage in their learning journey. In addition, they have to allow students to use their smart devices in English classes to acquire the skills necessary for blending smart devices with traditional teaching methods.

Third, wireless networks enable students to access online resources without getting disconnected from the network. Free acceptability of online resources will increase EFL instructors' and students' use and exposure to different language materials that facilitate language learning. Therefore, Taibah University's information technology services should provide campus-wide wireless access with high-speed connectivity and performance where all students can connect to a wireless network through their laptops, tablets, and smartphones.

This study recommends that future research assess the effect of different e-dictionary forms on vocabulary learning. It would be advised to explore the impact of using e-dictionary on minimizing specific vocabulary errors. Finally, it will be more reliable to replicate the current study with male and female EFL students to generate more profound insights into the value of e-dictionaries in language classrooms.

7. Limitations

Even though this mixed-method study did not aim to generalize to a larger population, it recognizes that its limitations include: first, the participants consisted exclusively of Saudi EFL female students, resulting in the impact of gender being beyond this study's scope; second, the study was restricted to Medina, Saudi Arabia, indicating the need for further studies on a broader scale in the Saudi context to generalize the results, and finally, although participants were encouraged to respond honestly and ensured confidentiality, Saudi EFL female students in the ELD and those in the PYP at Taibah University may have responded to qualitative data with the 'preferences' response but did not advocate their perspectives. Thus, structured interviews are advised to provide more insights into the students' most common preferences beyond e-dictionaries to improve their vocabulary learning.

8. Acknowledgments

Special thanks to all Saudi EFL female students in the ELD and PYP at Taibah University, Medina, Saudi Arabia, who participated in this study for their invaluable responsiveness during the 2020 academic year.

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