

E-Learning and Vocabulary Building: A Survey on EFL Secondary School Level

Students

* Umm-e-Rubab

** Muhammad Imran Shah (Corresponding Author)

Abstract



E-learning is the learning process conducted by the use of modern digital technologies, which includes online available resources such as social media online library books and other online learning platforms. The current study analysed the use of e-learning techniques for vocabulary building of students at the secondary school level so that e-learning could be integrated into the education of students to improve their proficiency in vocabulary education. The aims of the study were to seek the views of English language learners' perception about the role of "e-learning" in vocabulary enhancement and to gain information about potential challenges faced by pupils in acquiring vocabulary through "e-learning" along with the ways used by teachers to enhance the vocabulary asset of pupils by using "e-learning" techniques. Eighty students and ten teachers were part of the research and were selected by the researcher based on a random sampling technique, and questionnaires were used by the researcher to collect data from them regarding the use of e-learning and vocabulary building. The outcomes of the study showed that pupils and teachers had optimistic attitudes towards the use of e-learning for vocabulary building, but they were also facing some challenges that could be overcome by utilizing some resources, and in this way, e-learning could be implemented in a better way for vocabulary building.

Keywords: E-learning, English Language Teaching (ELT), Vocabulary building, English as Second Language (ESL), Survey Study

Introduction

"E-learning" is an education approach grounded in formalized instruction but practises automated sources (India Times, 2019). Instruction can occur in or out of the schoolroom, and "e-learning" is mainly reliant on the usage of computers and the internet. "E-learning" is a network that permits the transmission of skills and information in which tutoring is carried to many individuals at similar times or at dissimilar periods. Formerly, it was not broadly known that this technique required the human influence essential for learning. Online academic materials such as optical discs or USBs are increasingly substituting books. As an outcome, there is an honest follow-up of data sharing that is disbursed through numerous web podia. English is the primary language used on a daily basis in the majority of Dutch multinational corporations, according to a significant study by (Berns et al., 2010), and job postings only explicitly mention English proficiency when it is absolutely necessary or when candidates must have near-native proficiency.

Nation et al., (2018) describes three steps as generic procedures that contribute to vocabulary education: observing, recovery, and original (generative) usage. Observing is a personal involvement that is required for the conversion of effort into intake. It encourages the student to focus on the vocabulary while thinking it as a valuable tool. The process of reconceptualization aids pupils in improving their comprehension of a certain vocabulary item. These learning circumstances, according to Nation (2011), must be provided by vocabulary learning software. Colorization, text stylization, and highlighting, for example, can be used to increase noticing. To achieve an objective or acquire an item, retrieval can be accomplished through the use and/or repetition of words. Finally, generative use refers to the display of vocabulary development in a variety of formats, including written, spoken, and visual. Because DVGs are regarded as computer software, the same software-related computer-assisted vocabulary acquisition philosophies apply to them as well. Learning to construct a vocabulary

* MPhil Scholar, Department of Applied Linguistics, Government College University Faisalabad, Pakistan.
Email: Ummrubab45017@gmail.com

** Lecturer, Department of Applied Linguistics, Government College University Faisalabad, Pakistan.
Email: m.imran.shah@gcuf.edu.pk

is an important skill that pupils must master. It is critical because it would be problematic for pupils to understand the inputs if they did not have a solid vocabulary base (Alqahtani, 2015).

Statement of Problem

The process of vocabulary building is a critical task. Vocabulary plays a huge role for EFL learners, and in Punjab, pupils lack lexicons, have very limited assets of vocabulary and cannot manipulate lexicons for the transfer of their ideas from their native language to a foreign language. Teaching methods using “e-learning” are very limited and less effective. This research focused on investigating the feasibility of “e-learning” for enhancing the vocabulary building of L2 learners. This research also analysed the usage of “e-learning” by pupils in regard to the learning of vocabulary building.

Research Objectives

These are the following research objectives:

- To seek the views of English language learners' perceptions about the role of “e-learning” in vocabulary enhancement.
- To seek knowledge about potential challenges faced by pupils in acquiring vocabulary through “e-learning”.
- To seek the ways used by teachers to enhance the vocabulary asset of pupils by using e-learning techniques.

Research Question

1. How do English language learners (EFL learners) perceive the role of “e-learning” in vocabulary enhancement?
2. What are the potential challenges faced by EFL pupils in acquiring vocabulary through “e-learning”?
3. How can teachers enhance the vocabulary of pupils by using e-learning techniques?

Significance of the Research

The significance of research is that for pupils, it will be a mean to obtain help; for professionals, it will mean a source of improvement; and for philosophers, it will give them new ideas and ways of thinking. The importance of this research is in its practical nature, which will help learners increase their vocabulary by the practical implication of “e-learning”. This research will also be beneficial for language teachers and practitioners so that they can integrate “e-learning” for the improvement and enhancement of vocabulary. This research will aid in understanding the benefits and challenges of e-learning and can help students and teachers overcome these challenges to make e-learning more effective for vocabulary building.

Literature Review

E Learning

E learning is the type of learning in which the focus is mostly online learning by the usage of modern knowledge such as the internet, computers and mobile phones. E-learning has been integrated in various fields of education, as it is integrated in the area of language learning and is also known as learning by the assistance of computers, which in the other sense is known as computer-assisted language learning, and it involves the integration of computers for the learning of language. The learning of language by using modern technologies has evolved over time as different theories of language have evolved. E-learning as evolved by adopting different theories; it adopted social cultural theory, which states that language can be learned by interaction, and without interaction, language learning is not possible, so the focus of “e-learning” was on interaction. Over the period of time, this paradigm shifted towards constructivism. Before this, structuralism was the focus, which reveals the importance of structure in language learning, and these theories were also focused on language learning when language learning was done by integrating different modern technologies (Healy et al., 2018). The usage of information and communication technology has made education acceptable to everyone and provides training so that “e-learning” can be done in a good way, and it is all possible because of the advancement in “e-learning”. “E-learning” technologies are mostly used by universities and other educational institutions so that they can provide new and innovative ways of providing education to pupils, and over time, there has been much advancement in “e-learning” technologies, and their importance is rising daily in every field of life (Šumak et al., 2011).

E Learning and Covid

As an outcome of the COVID-19 disease, most learning was stirred online everywhere in the biosphere (Oraif & Elyas, 2021). Pupils who previously trusted traditional learning are now

challenged with a new challenge: the rise of “e-learning”. This dramatic adjustment may have an impact on their learning customs and readiness to grip the variation. As a result, their education engagement may agonize pointedly. As a result, the existing study examines pupils' levels of appointment in online courses distributed over a specialized school platform in Saudi Arabia. The Student Course Engagement Questionnaire was cast off as a reliable metric in the research (SCEQ). Learn about medical pupils' and faculty's perspectives on the obstacles of “e-learning” they faced during the COVID-19 epidemic (Qamar et al., 2021). During the COVID-19 epidemic, Malaysia's education organization emphasized the usage of online learning, or “e-learning”, with technology and gadgets as communication moderators to substitute face-to-face learning (Lukas & Yunus, 2021). Following that, as learning technology improved, English as a Second Language (ESL) teachers encountered new obstacles in language teaching. In this respect, the goal of this study was to look at the difficulties ESL teachers had in implementing “e-learning” during COVID-19. According to the findings, the majority of teachers thought that “e-learning” was effective but that there were some drawbacks, such as tutors' readiness to approve “e-learning”, access to phones and internet connectivity, and classroom management in terms of low student contribution and evaluation. As an outcome, the researcher suggests that more research be done to highlight instructors' perspectives on the importance of “e-learning”.

E Learning and Education Quality

Higher Education Institutions (HEIs) in South Africa have faced unforeseen occurrences in recent years, leading to the suspension of academic activities at universities (Mashau & Nyawo, 2021). This research argued that to successfully use online teaching and learning, pupils' experiences with online learning platforms and online evaluations must be improved. The findings also imply that, as part of the transition to “e-learning”, facilitators should reconsider their teaching approach. Under resourced pupils faced a variety of e-learning problems, which are divided into the following interconnected themes: technological, ecological, psychological, sociocultural, monetary, and physical (Kombe & Mtonga, 2021). As a result, the authors proposed ways that universities should implement to ensure that all pupils participate in E-learning regardless of their circumstances. The increased usage of computers and the Internet in adult English language classrooms has far-reaching consequences for English language plans (Coryell & Chlup, 2007). This work examined how programmes across the United States are effectively using “e-learning” mechanisms in their mature English language classrooms by analysing survey and focus group figures. Five elements had an impact on “e-learning” system usage and should be considered by universities when making future plans: technology, “e-learning” system quality, social, self-efficacy and faith (Almaiah et al., 2020). The study also exposed that there are three key obstacles that prevent the use of e-learning systems: change organization issues, practical problems with the systems and problems with financial assistance.

The three components of the “e-learning” service quality that e-learning pupils perceive are the quality of the e-learning system, the quality of the instructor and course materials, and the quality of the e-learning administration and support services (Pham et al., 2019). This study also demonstrated how the general quality of the “e-learning” experience improves student satisfaction, which in turn has a beneficial impact on student loyalty. It should be mentioned that “e-learning” student loyalty is directly impacted by the general quality of the “e-learning” services. For another study, an online poll was created to assess how well pupils were satisfied with the transition from traditional to online learning during the lockdown between March 20 and April 30, 2020 (Maqableh & Alia, 2021). Distraction and limited focus, psychological concerns, and managerial issues are the main causes of pupils' discontent with online learning.

E Learning and Language Teaching

The study's respondents revealed that they were generally between marginally and moderately prepared for online learning (Chung et al., 2020). Due to a lack of student control, self-directed learning, and online communication effectiveness, some of them were not prepared for online learning. Several conclusions can be drawn that are in keeping with the goals of this study. First, it was discovered that female pupils were more prepared for online learning than male pupils, and degree-level pupils were more prepared than diploma-level pupils. Second, female pupils and degree-level pupils reported higher levels of satisfaction with online learning and better learning experiences than male and diploma-level pupils. However, more than half of the respondents said that, given the option, they would not continue with online learning the following semester. Third, a pre-recorded

lecture posted on Google Classroom and YouTube was the most popular online learning technique. Finally, whereas understanding the course material was the biggest barrier for diploma pupils, internet connectivity presented the most challenge for degree pupils. Furthermore, research pointed out that the majority of pupils at SMK Yadika Bandar Lampung had positive attitudes toward the study's factors and agreed that English is a crucial topic to pay attention to if they want to enhance their grades or pass the final test in the future (Risten & Pustika, 2021). The majority of pupils claimed that studying English helped them in both their academic and professional endeavours. As a result, to raise their score, individuals must resolve these issues by becoming more motivated, disciplined in their planning, goal-oriented, and self-regulatory. Attitude is a crucial consideration element that is anticipated to spark pupils' motivation and performance in English language learning during online instruction via Moodle. Research has also described the difficulties faculty faced when converting to "e-learning" platforms during the pandemic at a medical school that was just starting out (O'Sullivan et al., 2021). There were significant topics covered that dealt with lecture preparation and delivery, student participation, and integrity. The faculty's technological and cultural resistances to online learning environments could be highlighted further in the future.

Vocabulary Building

Other than having a goal in mind for learning, there should be moments for applying the new knowledge for it to be meaningful. These interactions, real-language use, teaching strategies, and real purpose for using the new vocabulary learned are among the commonalities among the various views of vocabulary learning. For instance, (Contreras Ospitia et al., 2016) investigated how the use of multimedia projects could support the development of speaking skills in sixth graders, a group that was in need of different pedagogic strategies to improve their language learning abilities. The authors acknowledge the well-known necessity for greater vocabulary training across the board to improve one's skill in the English language, as well as the adoption of techniques that inspire pupils and encourage long-term, meaningful learning. The proposed social network empowered technique effectively lowers the vote cost and increases the accuracy of keyword selection with human expert contributions in comparison to linguistically oriented or statistically oriented approaches (Jiang et al., 2016). Furthermore, vocabulary learning comprises both the capacity to utilize vocabulary appropriately and the mastery of a specific number of words or phrases (Bai, 2018). Correct vocabulary learning techniques were crucial for pupils. Hospital, food and drinks, times, clothes and color, and thing in the living room were some of the resources the teacher used (Syafrizal & Haerudin, 2018). The teacher's method of vocabulary development included translation, memorizing, playing games, and singing. The teacher's chosen materials included pictures, actual objects, and the pupils' English books. The second issue is one that both the teacher and the student encounter during the teaching-learning process. English vocabulary played a significant role as one of the language skill components. To help the teaching and learning process, the teacher must use a few different tactics. Because children are frequently more eager, lively, and easily adaptable than adults, teaching English to young learners differs from teaching it to adults. This research is of descriptive qualitative variety. Teachers could utilize online and mobile applications through a variety of apps thanks to the most recent educational trends and enormous technological advancements (Chaikovska & Zbaravska, 2020). The effective use of ICT in the EFL classroom aided pupils in increasing target outcomes and improving vocabulary learning. The use of a quiz site such as Quizlet to help A2-level pupils' study for their state English exam helped them learn vocabulary. Vocabulary building served as the foundation for pupils' enjoyment of English instruction as they developed their language proficiency and acquired tools for future independent work (Guaqueta & Castro-Garces, 2018).

"E-Learning" Advantages

The study detailed benefits, drawbacks, and suggestions for enhancing online education while schools were closed because of the COVID-19 pandemic (Mukhtar et al., 2020). This study interpreted the viewpoints of teachers and pupils studying medicine and dentistry, which demonstrated that online learning modalities are flexible and useful sources of teaching and learning, but they also have some drawbacks. Moreover, the concern over the teaching of English as a foreign language (EFL) in Libyan schools led to the current study (Khalifa & Affendi, 2016). The development of a strong vocabulary in the target language was inseparably tied to learning a foreign language, which brings us to the theory and practice of teaching vocabulary learning techniques (VLSs) to pupils' learners. Another study was conducted with the goal of using a collaborative film project to encourage EFL (English as a Foreign

Language) pupils to learn English vocabulary (Abdulrahman & Basalama, 2019). This study showed that video projects can be a fantastic way to increase pupils' interest in learning English, help them participate more actively in the process, help them expand their vocabulary, and help build engaging, dynamic, and collaborative learning environments.

Research Gap

The process of vocabulary building is a critical task. Vocabulary plays a huge role for EFL learners, and in Punjab, pupils lack lexicons, have very limited assets of vocabulary and cannot manipulate lexicons for the transfer of their ideas from their native language to a foreign language. Teaching methods using “e-learning” are very limited and less effective. “E-learning” can be very effective for enhancing the vocabulary building of L2 pupils. Research on EFL learners’ perceptions of the role of e-learning in vocabulary enhancement is limited, and there is a gap in understanding the effectiveness of e-learning in vocabulary acquisition and how learners perceive its usefulness. Furthermore, there were several potential challenges faced by EFL learners in acquiring vocabulary through e-learning and limited opportunities for using the vocabulary in context. These challenges have not been well researched, and there is a gap in understanding how to overcome these challenges and effectively use e-learning for vocabulary acquisition, which was covered in this research. Moreover, while e-learning had the potential to enhance vocabulary acquisition for EFL learners, there was a limited understanding of how teachers could effectively incorporate e-learning techniques into their vocabulary instruction. There is a need for further research to identify effective e-learning strategies and to understand the role of teachers in facilitating vocabulary acquisition through e-learning. There was a need for further research to understand the effectiveness of e-learning in vocabulary acquisition for EFL learners, to identify the challenges faced by learners and how they can be overcome, and to explore the role of the teacher in enhancing vocabulary acquisition through e-learning, which were covered by the researcher in this study.

Research Methodology

Research Paradigm

This research aimed to explore e-learning for vocabulary building among secondary school students in the English as a Foreign Language (EFL) context. The research investigated the potential of e-learning to facilitate vocabulary acquisition and the role of students' engagement and feedback in this process. The constructivist approach to learning suggests that students should be at the center of the educational process, actively constructing their knowledge through interaction with the environment and meaningful experiences (Charmaz & Belgrave, 2012). Additionally, e-learning platforms could also provide opportunities for students to practice using vocabulary in interactive activities or discussions with their peers, which could further reinforce their understanding and retention. The constructivist approach also recognized the importance of feedback in the learning process. In the context of e-learning, students could receive immediate feedback on their understanding and use of the vocabulary through online assessments or interactive activities. This research was based on this theory so that the perceptions of students and the challenges being faced by them could be understood for the better integration of modern technology in vocabulary building. The study also focused on the views and strategies of teachers regarding the use of e-learning for vocabulary building and employed the model of e-learning by (Šumak et al., 2011).



Figure 1. Academic E-learning model

Participants of the Study

The researcher conducted research at two higher secondary schools in Faisalabad in 2022. The English faculty, particularly the secondary school level faculty, encompassed classes 9 and 10 for the

2022 academic year. The data were gathered by a random sampling technique from a total of 80 participants. The subjects for the study were 58 male pupils and 22 female pupils at the secondary school level. The age of pupils varies from 16 to 18 years. The reasons for choosing these classes were due to the low vocabulary size of the pupils.

Instrumentation

The researcher used a questionnaire to gather quantitative data from the participants of this survey research. The questionnaire was adopted from the survey conducted by the School of Education of the University of Xu Chang University. Faculty and pupils' insights into online learning through COVID-19 and vocabulary building questionnaire items were selected from questionnaires (Abdulrahman & Basalama, 2019; Ja'ashan, 2020; Khalifa & Affendi, 2016) to fulfil the objectives of the study. The first part of the questionnaire was about pupils' perceptions of E learning. The second part of the questionnaire was about the challenges faced by pupils to learn vocabulary building by using "e-learning". The last part of the questionnaire is about the strategies of teachers that they can adopt to enhance vocabulary by using E-learning.

The data were examined by means of Microsoft Excel 2021 and SPSS 26.0. The data from both the teachers' and students' questionnaires were entered into the software so that the analysis could be performed. Graphs were drawn to interpret the results, as this was a quantitative study, so the numerical values and quantitative data could be interpreted very easily by the use of graphs and tables.

Results and Discussion

Participants Involved

Table 1. Participants involved in the research

"Gender"	"Frequency"	"Percent"	"Valid Percent"	"Cumulative Percent"
Male	58	72.5	72.5	72.5
Female	22	27.5	27.5	100.0
Total	80	100.0	100.0	

A total of 90 participants were involved in the research, among which 80 were pupils and 10 were teachers. Among 80 pupils, 58 were male and 22 were female participants who participated in the research on the use of e-learning for vocabulary building. The participants were 72.5% male, and the remaining 27.5% were female. The participants were given a questionnaire so that their point of view regarding vocabulary learning with the help of E-learning could be understood. Participants were EFL secondary school pupils who were learning English as a foreign language, and the research was focused on the usage of "e-learning" for the vocabulary building of EFL pupils at the secondary school level due to which these participants were selected by the researcher for the current study.

Merits and Demerits of "E-Learning"

The results explained the merits of "e-learning" expressed by the pupils and discussed which aspects of E-learning were mostly liked by the pupils. The results of the study of the student perception questionnaire showed that the advantages of "e-learning" that participants chose most frequently were learning at their own pace (33%) and class interactivity (19%), while the percentages of the remaining options were similar, such as access to online materials (13%), ability to stay at home (13%), and comfortable surroundings (13%); the lowest percentage was the ability to record a meeting (11%). According to the results, the pupils' perception of "e-learning" advantages is that they can study by themselves, which helps them increase their vocabulary through "e-learning".

Furthermore, section two of questionnaire resulted the drawbacks of "e-learning". Most of the participants chose abridged interaction with the teacher (26%) and technical difficulties (23%) as the main disadvantages. The results indicated that according to the participants, the major disadvantage of "e-learning" is the lack of interaction with their teachers or instructors, as they cannot take much help while teaching through "e-learning". The participants chose a lack of self-discipline (15%), poor learning conditions at home (14%), social isolation (11%), and a lack of interaction with fellows (10%). These were the disadvantages that pupils felt they could face while learning through the usage of "e-learning" for vocabulary building to improve their vocabulary size, and these were the point of view of EFL pupils at the secondary school level.

Effectiveness of E-Learning and Face-To-Face Learning

The results depicted the effectiveness of "e-learning" and face-to-face learning by the pupils.

Table 2. Effectiveness of E-learning

Variables	N	“Mean	“Std. Deviation”
“Rate the efficiency of “e-learning” in footings of growing knowledge”	80	3.7375	1.15555
“Rate the efficiency of “e-learning” in footings of growing social capabilities”	80	3.4000	1.16489
“Rate the efficiency of usual face-to face learning in footings of growing knowledge”	79	3.7595	1.06476
“Rate the efficiency of usual face-to face learning in relation of growing social abilities”	80	3.3875	1.22726

The mean of the item about the effectiveness of “e-learning” is (M=3.73), which showed that the majority of the students were settled with the report that “e-learning” is affective in increasing knowledge, but the same number of participants also agreed with the efficacy of face-to-face learning for growing knowledge, as it had a mean of (M=3.75). This showed that participants believed that both face-to-face and “e-learning” had the same importance for knowledge and that they could adopt both to obtain knowledge. The majority of the participants selected the effective option. The mean was (M=3.73) and the standard deviation was (SD=1.15) which showed the results vary from strongly affective to neither ineffective nor affective but for social competence, the mean was (M=3.4) which showed that the majority of the participants had an unbiased point of view concerning the role of “e-learning” in social competence but on the other hand face-to-face learning had a high mean value of (M=3.8) for social competence which depicted that majority of the participants believed that face to face learning was better for social competence development.

Pupils’ Perception

Table 3. Cronbach's Alpha

“Cronbach's Alpha”	Cronbach's Alpha Based on Standardized Items”	“N of Items”
.734	.731	10

Cronbach’s alpha was calculated to understand the reliability of the questionnaire used by the researcher to understand the perceptions of the pupils. The value was 0.734, which was considered very good regarding the reliability of the questionnaire, and this questionnaire was used by the researcher to collect data from the pupils. It proved that the questionnaire was very reliable and provided the necessary material for the current research, which was the point of view of pupils regarding the usage of “e-learning” for vocabulary building at the secondary school level. This questionnaire provided the perceptions of pupils regarding e-learning to the researcher.

Table 4. Perception of vocabulary learning by pupils

Item	N	Mean	Std. Deviation
“I feel I would learn more vocabulary by making videos”	80	3.5750	1.18829
“I enjoyed group discussion about videos preparation with my group member”	80	3.7000	1.10694
“I feel inspired to acquire English vocabulary through the video plan”	80	3.6000	1.21801
“I feel that the video project will help me to better acquire academic vocabularies”	79	3.7595	1.08858
“I enjoy learning vocabulary by using E learning.”	79	3.6203	1.20154
“The content of online learning is better than traditional education”	80	3.2875	1.36125

It was evident from the responses of the pupils regarding vocabulary learning with the help of “e-learning” techniques that most of the pupils prefer to learn vocabulary by using digital technology as a tool for learning. Responses given by pupils had an average (M = 3.5-3.7) with a standard deviation (SD) of 1.1 to 1.2, which shows that most of the pupils agree with the usage of digital technology for vocabulary learning and considered it very helpful for their education. The pupils also considered that the content of online learning was better than traditional education, and it was evident from the answers provided by pupils to the questions that were given to them by the researcher. The mean of the items showed that most of the pupils agreed with the usage of digital technology tools for learning vocabulary, which would enhance their vocabulary size. Pupils preferred that they could learn vocabulary by making videos and by discussing these videos with other group members because they would feel motivated in learning vocabulary through the video projects and could enjoy learning vocabulary with the help of “e-learning” techniques, which will help them to battle acquired academic

vocabularies and enhance their vocabulary size. It was evident that 39% of pupils agreed to learn vocabulary by making videos, and 41% of the pupils showed agreement for the discussion of these videos with their group members. It was also depicted that 45% of the pupils said that they felt motivated by learning vocabulary through video projects, and 39% of the pupils said that video projects would be very helpful for them to acquire vocabulary and to build their vocabulary size by the use of e-learning tools.

As far as enjoying is concerned in learning vocabulary by the use of “e-learning” techniques, 39% of the pupils agreed with this perspective that they enjoy learning vocabulary by using “e-learning” techniques, and 29% of pupils showed agreement that the content of online learning is better than traditional education. The percentage of strongly agreed varied from 24% to 28%, which showed that the majority of the population, which varied from 60% to 80%, worked from the point of view that “e-learning” could be very beneficial for them to increase their vocabulary size. The data depicted that the pupils had positive insight into the integration of “e-learning” for vocabulary building, as they thought by the use of “e-learning” they could learn vocabulary more effectively by enjoying the whole learning process.

Challenges Faced by Pupils

Table 5. Cronbach's Alpha

“Cronbach's Alpha”	“Cronbach's Alpha Based on Standardized Items”	“N of Items”
.864	.866	14

Cronbach's alpha was calculated for the questionnaire that discussed the challenges faced by pupils for “e-learning”, and the value obtained was 0.866. This showed that the question was highly reliable with such a high value near 1. The consistency of the questionnaire was evident from Cronbach's alpha.

Table 6. Challenges faced while learning vocabulary through E-learning

Item	N	Mean	Std. Deviation
“Lack of interaction between pupils and teaching staff”	80	3.63	1.118
“Deficiency of Time necessitated to have online examinations/assignments”	80	3.23	1.19
“Unapproachability of course records/materials”	79	3.63	1.123
“Problems with internet access”	80	3.56	1.281
“Negative remarks about “e-learning””	80	3.49	1.331
“Scarce ICT and “e-learning” substructure”	79	3.29	1.332
“Nonexistence of technology/software obligatory for home access”	80	3.59	1.187
“Deficiency of procedural support/advice”	78	3.42	1.284
“Inaccessibility of audio/video material, PDF, PowerPoint”	80	3.34	1.292
“Lack of exercise courses delivered by the institute”	77	3.47	1.363
“The software of “e-learning” is too intricate to practise”	80	3.27	1.35
“Online learning is greatly affected by the network environment and its effect is limited”	80	3.54	1.158
“Lack of feedback from instructor.”	80	3.33	1.403
“Lack of time to participate.”	80	3.58	1.156

It was evident from the responses of pupils that they were facing different types of challenges by learning vocabulary through “e-learning”. The main challenges that pupils faced were lack of interaction and the accessibility of course notes in online learning because of the mean of these items, which was (M=3.63). Most of the participants agreed with this statement that lack of interaction in online learning and had less accessibility to course materials. Other challenges faced by pupils were problems with internet access and negative comments about “e-learning” along with the absence of technology or software mandatory for home access. The responses to these items showed that most of the pupils agreed with these challenges because of the mean of these, which was 3.42-3.59. Different challenges, such as inadequate “e-learning” infrastructure and accessibility of audio-video material along with lack of training courses and lack of feedback from the instructors, were also considered different challenges by the pupils for e-learning. The mean of these items varied from 3.23-3.63 along with a standard deviation of 1.1-1.4, which showed that the barriers asked by the researcher in the questionnaire were the barriers that pupils faced during “e-learning” of vocabulary to enhance their vocabulary size.

There was a lack of resources and facilities for e-learning, which was also mentioned by the pupils in the questionnaire, and the software for e-learning was very complicated to use for the pupils.

All these challenges should have been resolved so that the vocabulary size of the pupils could be enhanced by using modern digital technological tools. Pupils also faced problems regarding the lack of interaction among peers, as they thought that “e-learning” had limited the interaction among pupils and made pupils socially isolated. Moreover, it was evident that most of the participants agreed with the challenges mentioned by the researcher in the questionnaire, and the agreement percentage varies from 40% to 70% regarding the agreement with the challenges being faced by pupils. It is also evident from the graph that most of the challenges faced by the pupils were related to the infrastructure of “e-learning”, as the technology available is not up to date for the pupils, so they were facing many problems while building vocabulary size using “e-learning” techniques.

Teaching Strategies

This section addresses the strategies used by teachers to increase the vocabulary size of pupils by adopting e-learning techniques and tools for pupils.

Table 7. Strategies adopted by teachers for E-learning vocabulary building

Item	N	Mean	Std. Deviation
“I urge my pupils to use memory approaches for retaining of word meanings through mental connections.”	10	4.5000	.97183
“I urge my pupils to use cognitive approaches for examination of novel word meanings.”	10	4.4000	.51640
“I urge my pupils to use determination approaches for improved recollection of word meanings.”	10	4.3000	.48305
“I urge my pupils to use metacognitive approaches to assemble and design learning of new words.”	10	4.2000	.63246
“I urge my pupils to use affective approaches for improved control of their emotional situations while learning fresh words.”	10	4.0000	.66667
“I urge my pupils to use social approaches (asking questions, etc.) for improved consideration of word usage in real life situations.”	10	4.4000	.51640
“I urge my pupils to use compensation strategies for guessing and overcoming limitations in learning new words.”	10	4.5000	.52705
“I deject my apprentices from using social media, like Facebook.”	10	3.5000	1.50923
“I urge my pupils to acquire new words through Internet foundations, like online research places and vocabulary learning sites.”	10	4.9000	.31623
“I urge my pupils to acquire new words by means of thesaurus (hard copies as well as digital forms built in some softwares, like MS Word).”	10	4.5000	.70711
“I urge my pupils to read English books to acquire new words external to the class.”	10	4.5000	1.26930
“I deject my pupils from hearing English songs.”	10	2.1000	.87560
“I impart my pupils word formation guidelines.”	10	4.3000	.67495
“I don’t impart my pupils word maps.”	10	2.8000	1.75119
“I impart my pupils word substitution competitions”	10	4.3000	.67495
“The teaching effect of online learning is better than traditional education”	10	2.9000	1.72884

The responses of teachers varied from 3.52-4.9, and the majority of the mean values were between 4.4-4.6, which showed that most of the teachers showed strong agreement regarding the questions being asked by the researcher in the questionnaire. The standard deviation of the responses was .52 to 1.5. Teachers said that they urged pupils to use different types of memory strategies so that they could link words and memorize them. They also used different cognitive strategies along with determination strategies and metacognitive strategies so that they could assemble and plan to learn fresh words for the pupils. Teachers also told their pupils to use effective strategies to well regulate their emotional state while learning, and they also urged pupils to use social strategies along with compensation strategies for learning vocabulary. The teachers also mentioned that they do not discourage their pupils from using social media because the average mean score for this was 3.5, which showed that teachers do not discourage their pupils and urge them to use internet resources such as online research websites and vocabulary spots for the learning of vocabulary. After all, this item had a mean of 4.9, which showed that teachers strongly agreed and adopted this strategy for the teaching of vocabulary.

The teachers also motivated pupils to use different online software and urged them to read English books while teaching them word formation rules and word maps with the help of different substitution games. Different strategies were adopted by teachers for teaching vocabulary by using e-learning techniques, and it is evident that most of the teachers who participated in the research used different strategies that involved e-learning. It is also evident that most of the teachers used different e-learning strategies and techniques, which showed that they somehow integrated e-learning into their teaching methods so that they could teach vocabulary to pupils to enhance their vocabulary size.

Discussion

Discussion on the Findings of Questionnaires of Pupils

The findings of this research discussed the merits and demerits of “e-learning” for vocabulary building. It was evident from the outcomes of the study that pupils had very optimistic attitudes toward “e-learning” for vocabulary building, and they agreed with the benefits mentioned by the researcher in the questionnaire. Most of the participants overall agreed with the merits being mentioned in the questionnaires because some participants agreed and some strongly agreed with the paybacks of “e-learning” for vocabulary size and vocabulary learning. (Jiang et al., 2016) describe that the use of social networks had increased the accuracy of vocabulary and due to this, it can be determined that “e-learning” played and due to this it can be decided that “e-learning” played a very vital role in improving the accuracy of vocabulary which was also seen in this research as most of the pupils agreed with the aids of “e-learning” for vocabulary size and learning. This was further promoted by (Chaikovska & Zbaravska, 2020), who also emphasized vocabulary building by using “e-learning”.

The results of the research identified technical and social issues faced by pupils while using “e-learning” for vocabulary size, which was also identified by (Kombe & Mtonga, 2021; Qamar et al., 2021), who also discussed that the issues related to “e-learning” work were categorized into social, technological, financial and economic issues due to which pupils had to suffer in their learning, and these views correlate with the findings of the current research. These issues have to be resolved to make “e-learning” more effective, as it was evident that pupils had a positive attitude towards “e-learning” for vocabulary size. (Alhabahba et al., 2012; Kaisara & Bwalya, 2020) also described that the issues related to “e-learning” must be addressed for better operation of “e-learning” in a successful manner and focused on the infrastructure problems that hindered the successful implementation of knowledge. This was also identified in this research and needs to be resolved so that pupils could learn effectively and build their vocabulary size by using modern technology tools.

The results of the research also revealed that pupils had very positive insight into “e-learning” and perceived “e-learning” in a better way, as it was revealed that pupils felt comfortable while learning vocabulary through “e-learning”. The pupils also revealed that the content regarding online learning was better than traditional education, and they felt comfortable in “e-learning” because of its up-to-date content. (Alhabahba et al., 2012) noted that the cognitive attitude of learners affects their adoption of modern technologies for learning and described that because of the encouraging attitude of learners, they adopted the “e-learning” system and improved their English in a much more effective way. (Chaikovska & Zbaravska, 2020; Elekaei et al., 2020) elaborated on the use of modern technology tools such as mobile applications and podcasting for teaching vocabulary and proved that these “e-learning” tools had a very positive effect on vocabulary size and pupils had very positive insight towards these “e-learning” tools, which was also identified and described by the researcher in the current research based on the responses obtained from the pupils by using questionnaires. (Ja’ashan, 2020) elaborated the point that the advantages of “e-learning” had outweighed the drawbacks of “e-learning” because “e-learning” should be implemented in education, and this research focused on the implementation of “e-learning” for vocabulary building so that pupils could enhance their vocabulary size by using “e-learning”. Pupils had an optimistic attitude towards the usage of e-learning for vocabulary building and specifically towards the use of modern technologies for the development of learning and education (Oraif & Elyas, 2021; Risten & Pustika, 2021). It was observed that the quality of services related to “e-learning” played an essential and important role in the vocabulary building of pupils, and it was also identified by (Pham et al., 2019), which coincided with the findings of the current research that the infrastructure related to “e-learning” played a vital role and the cognitive development of pupils towards the acceptance of “e-learning”. (Ja’ashan, 2020) elaborated the point that the benefits of “e-learning” had outweighed the drawbacks of “e-learning”.

because “e-learning” should be implemented in education, and this research focused on the implementation of “e-learning” for vocabulary building so that pupils could enhance their vocabulary size by using “e-learning”.

The questionnaire also discussed the strategies used by teachers for vocabulary building of pupils by utilizing “e-learning” and education. It was evident from the findings of the research that correct learning strategies play a very vital role in the vocabulary building of pupils (Bai, 2018) also highlighted the reputation of correct learning approaches for the learning of vocabulary. The findings of the research elaborated that most of the teachers had the same opinion regarding the strategies for vocabulary building, and they provided the views that they use different strategies related to memory, cognitive and determination strategies along with metacognitive strategies so that pupils could plan and arrange to learn new words and analyse new words through mental linkages. The instructors also revealed that they urged pupils to use social media and other Internet online resources to learn new vocabulary, as the use of social media proved helpful in learning vocabulary (Jiang et al., 2016). Teachers used different strategies for vocabulary building of pupils, as the vocabulary-building process significantly depends on the strategies being used by teachers (Alharbi, 2015; Syafrizal & Haerudin, 2018). It was observed from the findings and results of the study that pupils and teachers had a positive attitude towards “e-learning” for vocabulary building; on the other hand, they had to face some issues that could be resolved to make “e-learning” more beneficial.

Conclusion

The research concluded that “e-learning” can be very successful for vocabulary building in EFL secondary school pupils. It can be concluded that pupils showed very positive insight into the operation of “e-learning” for vocabulary building, and teachers also appreciated the use of “e-learning” to forget vocabulary building of EFL secondary school pupils. Based on the results and discussion of the research, it was revealed that there were many advantages and drawbacks of “e-learning”, but the benefits of “e-learning” had outweighed the demerits of “e-learning”, and the perception of pupils was also very optimistic towards the integration of “e-learning” for workability building. Despite the challenges, the pupils showed a positive attitude towards “e-learning” for vocabulary acquisition. The challenges related to “e-learning” were also very serious, and most of the challenges were because of the lack of infrastructure and lack of interaction among pupils and teachers in “e-learning”. These challenges had to be resolved to make “e-learning” a better and more effective way of vocabulary building, as previous studies also focused on addressing these problems so that the process of “e-learning” could be made more effective and productive. Pupils and teachers both had a constructive attitude towards the usage of “e-learning” for vocabulary building, and this is a positive trend towards the usage of “e-learning” for vocabulary building, as “e-learning” can provide different strategies for vocabulary building and can overcome the separation between real-world vocabulary and classroom vocabulary so that pupils can develop vocabulary with which they can compete in real-life situations.

Compliance with Ethical Standards

It is acknowledged that all authors do not have any struggles of attention. It is also avowed that this study does not comprise any studies with human contributors or animals accomplished by none of the authors. Furthermore, knowledgeable consent was gained from all distinct participants involved in the study.

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