



The Effectiveness of an Electronic Program Based on the Accelerated Learning Theory in Developing EFL Vocabulary Use of Preparatory School Students

Walaa Mohamed Shahin, Bahaa El-Din El-Naggar, Ahmed Abd Al-Salam Edris

Curriculum and Instruction(TEFL), Faculty of Education, Zagazig University, Egypt.

***Corresponding author: Walaa Mohamed Shahin,**

walaashahin006@gmail.com

Abstract

This study aimed at exploring the effectiveness of an electronic program based on the Accelerated Learning Theory in developing preparatory school students' EFL vocabulary use. Forty 1st year preparatory school students from Al Ghar preparatory school, Sharkia Governorate were selected and divided into two groups: an experimental group (N=20) and a control group(N=20). The experiment was conducted during the first term of the school year 2022/2023. For data collection, the following instrument was designed; a vocabulary use test and it was validated by the jury members. It was pre-post administered to both groups. Then an electronic program based on the Accelerated Learning Theory was designed and administered to the experimental group whereas the control group received regular instruction. Data obtained were analyzed using SPSS; independent samples T-test was used to compare the mean scores of the experimental and the control groups in the post administration of the study instrument. Paired Samples T-test was used to find out the difference between the mean scores of the pre-post administrations of the experimental group. Results of the study indicated that the experimental group outperformed the control group in the post administration of this instrument. Findings of the current study provided evidence that the electronic program based on the Accelerated Learning Theory had a positive effectiveness in developing EFL vocabulary use of preparatory school students.

Key Words: E-learning, The Accelerated Learning Theory, vocabulary use.

1. Introduction

Vocabulary plays a crucial role in learning a language. Definitely, learning a new language depends totally on the amount of vocabulary the learners acquire, retain and use. Vocabulary is essential in developing the other language skills; listening, speaking, reading and writing. It provides the learner with the ability to express his/her own ideas, thoughts, emotion and communicate with others. In this respect, Bai(2018) viewed vocabulary as one of the three key factors for learning a language. It is the basic for making sentences, expressing thoughts and meanings and a fundamental requirement of language communication. Similarly, Macis and Schmitt (2017) assured that vocabulary knowledge is fundamental in EFL learning. Without having adequate vocabulary knowledge, students may not achieve the desired results in the process of language learning and its competence. The shortage of vocabulary items hinders second language learning process.

Achieving mastery in English vocabulary not only depends on learning and retaining the meaning of words but also on having the ability to use these words in different language contexts. Stahl (2005) stated that the knowledge of a word not only involves its definition, but

also how that word is used in context. Salam(2021) also demonstrated that mastering the English vocabulary is more than knowing the meaning of the words. It deals with the forms, meaning and use of the words. Susanto(2021) demonstrated that EFL students still faced many problems in vocabulary learning. These problems include having difficulties in: pronouncing the words, how to write and spell the words, the different grammatical form of a word known as inflections, choosing the appropriate meaning of the words, using the word based on the context and being confused when finding words or expression that were idiomatic.

Helping students to overcome their difficulties while learning and using English vocabulary, requires using new teaching and learning methods. The accelerated learning theory is considered as a new trend in teaching and learning English language. SSAT (2013) mentioned that Accelerated Education refers to any attempt to speed up the teaching and learning process and achieve the desired learning outcomes faster and more efficiently than through more traditional arrangements and approaches. Accelerated learning focuses on making the learning process more efficient. It does so by drawing on the latest research findings about how the brain works (neuroscience) and creating a positive environment in which students are active and learn together.

Jenkins et al (2010: 2) stated that accelerated learning is a natural way of learning that is believed to create "original character", because accelerated learning is basically learning and life philosophy which pursues to humanize the learning process, as well as make the experience for the whole body, mind and personal. Besides, Beale (1997: 15) stated that accelerated learning has the characteristics which tend to: a flexible, happy, much the way, concerned with cooperation objectives, humane, multi-sensory, nurturing, centered activity, involves mental, emotional and physical well.

Integrating technology within the teaching and learning processes is important and has recently become a must. In this respect, Jacksi et al (2021) asserted the usefulness of e-learning in the teaching process and considered it as a fundamental alternative to continuing education.

Depending on the above, the current study aimed at investigating the effectiveness of an electronic program based on the Accelerated Learning Theory in developing EFL phonological performance, vocabulary use and oral reading of preparatory school students.

1.2 Context of the problem:

Despite the importance of vocabulary use skills in learning English, most 1st year preparatory school students seem to be inefficient in achieving mastery in these skills. This was obvious through: reviewing some previous studies like: Naeimi(2015), Emam(2020), Waer(2021), Abdel Hamid (2021) and Al Maraghy(2022), it is evident that EFL learners have difficulties in learning English vocabulary. They also face problems in using it. Interviewing some EFL preparatory school teachers and supervisors who assured the importance of developing vocabulary use. A pilot study was conducted by the researcher on a group of 1st year preparatory school students at Al Henawy preparatory school, Sharkia Governorate, Egypt. Their results were (35.3%) in the vocabulary use test.

1.3 Statement of the Problem:

The present study attempts to answer the following main question: **"What is the effectiveness of an electronic Program Based on the Accelerated Learning Theory in developing EFL 1st year preparatory school students' vocabulary use?"** This main question is subdivided into the following ones: What is the vocabulary use skills needed for EFL 1st year preparatory school students?. How can an electronic program based on the Accelerated Learning theory be designed to develop EFL 1st year preparatory school students' phonological

performance and vocabulary use skills?. What is the effectiveness of an electronic program based on the Accelerated Learning Theory in developing EFL 1st year preparatory school students' vocabulary use?.

2.1 Vocabulary Use

2.1.1 EFL Vocabulary Nature and Aspects

Concentrating on the nature of vocabulary in foreign language learning, Nordquist(2019) viewed vocabulary as "all the words in a language that are understood by a particular person or group of people. There are two main types of vocabulary: active and passive. An active vocabulary consists of the words we understand and use in everyday speaking and writing. Passive vocabulary is made up of words that we may recognize but don't generally use in the course of normal communication".

In the same concern, Neuman and Dwyer (2009:385) reported that vocabulary is "the words we must know to communicate effectively: words in speaking (expressive vocabulary) and words in listening (receptive vocabulary)". Moreover, Marius (2018) stated that "vocabulary is all the words of language. Vocabulary functions as a cornerstone without which any language could not exist. Speaking would be meaningless and perhaps impossible having only structure without vocabulary. The word vocabulary generally represents a summary of words or their combinations in a particular language. Vocabulary teaching is one of the most important components of any language class".

Referring to EFL vocabulary aspects, Flohr(2008:3) and Carston(2013) stated that vocabulary knowledge involves a lot of aspects such as: Form (Knowing words pronunciation and spelling), Grammar (words in grammatical contexts and certain situations), Collocation (combining words which are regularly used in a language), Meaning (word denotation, connotation and appropriateness), and Word formation (putting words together in the right order in the sentence).

2.1.2 Importance of vocabulary in EFL classrooms

Vocabulary has a central position in EFL classrooms around it all language skills are built. In this respect Min(2013) demonstrated that a strong base of vocabulary is crucial at every stage of second language learners' development. Learners cannot have effective communication without a sufficient knowledge of vocabulary. Additionally, all other language skills depend mainly on vocabulary. Assuring the same thought, Afzal(2019) declared that the students' ability to communicate effectively depends on a good knowledge of vocabulary, which they continue to develop throughout their life span. Vocabulary is the basis for language skills, namely, listening, speaking, reading, and writing. Without vocabulary learning, it is not easy to achieve any language proficiency. Vocabulary is the basis of acquiring a second language.

Consequently, the language of the human beings depends on the used or gained vocabulary. Thus, without vocabulary, students will be de-motivated to use the language (Richards and Renandya, 2002). To Thornbury (2002:13) "Without grammar very little can be conveyed, without vocabulary, nothing can be conveyed". Seifert (2016) assured the importance learning vocabulary. He claimed that vocabulary can be used for: **(1) Enhancing Reading Comprehension.** Students need to understand 98% of the words they read in order to understand what they are reading. Developing vocabulary skills can improve students' understanding of novels and textbooks. **(2) Increasing Language Development.** Students, who have a rich vocabulary become deeper thinkers, express themselves better and read more. The early enhancement of language and literacy skills can assist students to achieve more communicative and academic success. **(3) Communicating Ideas.** Successful communication

depends on a good vocabulary base. Using words accurately when talking, allows students to become more effective communicators. **(4) Expressing Yourself in Writing.** Having a good vocabulary enables students to write more effectively. **(5) Occupational Success:** Students' vocabulary level is the best predictor of their occupational success.

Emphasizing the role of EFL vocabulary in developing language skills, Mahmudah(2016) investigated the correlation between learners' writing ability and their vocabulary mastery. 28 eighth grade students represented the study participants. Study instruments were a writing ability test and a vocabulary mastery test. Results of the study showed a significant correlation between students' writing ability and vocabulary mastery.

Solati-Dehkrdi and Salehi(2016) also measured the effects of explicit vocabulary instruction on students' writing achievement. 30 female upper-intermediate EFL learners were selected as the study sample. A fill-in-the blank test including 36 single words and 60 lexical phrases were administrated. The EFL participants were asked to write a composition. Comparing their writings before and after the treatment, a significant increase in the number of vocabularies used productively in learners' writing was found. The statistical analysis revealed the effectiveness of explicit vocabulary instruction on improving learners' writing skills, vocabulary retention and productive use of newly acquired vocabulary.

Al-Khasawneh(2019) investigated the role of vocabulary size in reading comprehension among Saudi EFL learners. The study participants were 64 male students who studied at the first level in the academic year 2018/2019 at King Khalid University. A Vocabulary Size Test and A reading comprehension test were used to collect the data. The results showed a significant relationship between vocabulary size and reading comprehension. Vocabulary knowledge is a key predictor for comprehending written texts.

2.1.3 Vocabulary Types

Montgomery(2007) classified the types of vocabulary into four types: Listening vocabulary which involves words one hears and understands, speaking vocabulary includes words that are used when speaking, reading vocabulary refers to understood words from reading a text, writing vocabulary refers to the retrieved words when writing. Gogoi(2015) and Harmmer(2007) also divided vocabulary into two types: **(1)Active vocabulary:** contains words learners use in their speech and writing. The meaning of those words is known accurately. Active vocabulary refers to language productive side. It involves the words that can be used confidently because their meanings and usage are understood. **(2) Passive vocabulary:** refers to the words whose meaning can be understood when they appear in others speech or writing but they cannot be used in our own speech and writing as we are not fully knowledgeable with them. In passive vocabulary, one does not recognize the precise meaning of a certain word and these words cannot be used in communication.

Nation(2001:11) mentioned four types of vocabulary include **(1) High frequency words:** cover a very large proportion of the running words in spoken and written texts and occur in all kinds of uses of language. **(2) Academic words:** words that are common in different kinds academic texts. They are important in using English for academic purposes. **(3)Technical words:** contain words which are closely related to the topic and subject area of the text. **(4) Low frequency words:** include words that occur very infrequently and cover only a small proportion of any text.

2.1.4 Vocabulary Teaching strategies

Webb(2020:5) declared that vocabulary can be taught intentionally and incidentally. Intentional vocabulary learning approach relies on using activities which are designed to explicitly focus students on learning words. These activities contain fill in the blanks, flash cards and matching exercises. On the other hand, incidental vocabulary learning approach encompasses situations that involve encountering input through listening and reading, without intention to learn words, words are learnt as a result of these experiences. Pan and Xu (2011) also suggested some effective strategies for teaching vocabulary.

These strategies are **(1) Teaching Vocabulary in Context:** means the words that come just before and after a word, phrase or statement and enable students to understand its meaning. A word becomes alive when it is taught in context. Moreover, context teaching helps students make correct use of the learnt words and lead to effective reading and communication. Context teaching also provides students with a good reading habit as reading between the lines, thus developing their reading comprehension. **(2) Teaching Vocabulary with Semantic Field Theory:** according to the semantic field theory, words do not exist in isolation. They are in different semantic fields. A word is noticed by its relationship with other words in the same semantic field. There are various kinds of relationships, for example, hyponymy, part/whole relationships, synonymy and antonyms. By association of words in the same semantic field, students can deepen their recollection of words learnt and strengthens learning and retention of new words. **(3) Expanding Vocabulary by Word Formation:** is an effective method that allows students see words in the network of association. Knowing the meaning of a word becomes the task of recognizing its associations with other words. Therefore, to teach lexical items effectively, teachers must familiarize students with common roots, prefixes, suffixes. Students are asked to guess the meanings of new words and summarize the common roots, prefixes and suffixes. So, students not only recognize how words are formed but also comprehend the motivation of English word formation. Consequently, their vocabulary increases and they become progressively interested in learning English. **(4) Creating Mental Linkages by Association:** in teaching vocabulary, classroom setting atmosphere must be active. The teacher should associate and expand students' vocabulary. For example, writing the word "tree" in the center of the blackboard and then ask students to brainstorm all the words connected with it. The circle of associated items is a meaningful context for learning new vocabulary. Teachers should appropriately use time in the classroom and give chances of word consolidation as much as possible. **(5) Teaching Cultural Connotations and Cultural Differences:** When teaching vocabulary, teachers should provide students with information about cultural background, customs and cultural connotations which will not only enlarge students' horizon, but motivate their interest in English. **(6) The Use of Dictionaries:** students can use dictionaries to increase the number of words they understand. The monolingual dictionary is very useful in this respect. It provides students with more words, more grammatical information about these words, information about pronunciation, spelling, word formation, and metaphorical and idiomatic use. Teachers can help students choose and use a proper dictionary.

2.2E-Learning

2.2.1 What is E-learning?

Al-Atabi(2020) defined e-learning as "an interactive system of education that provides the learner with the use of communication and information technologies and depends on an integrated digital electronic environment that displays the courses across the electronic networks

and provides guidance, organizing tests as well as managing and evaluating resources and processes". Chitra and Raj(2018) argued that "e-learning comprises a lot more than online learning, virtual learning, distributed learning, networked or web-based learning. As the letter "e" in e-learning stands for the word "electronic", it would incorporate all educational activities that are carried out by individuals or groups working online or offline, and synchronously or asynchronously via networked or standalone computers and other electronic devices".

Arkorfu and Ghana(2015) claimed that "E-learning involves the use of digital tools for teaching and learning. It makes use of technological tools to enable learners study anytime and anywhere. It involves training, delivery of knowledge and feedback. It motivates students to interact with each other, exchange and respect different point of views. It eases communication and improves the relationships that sustain learning".

2.2.2 Importance of E-Learning

According to Ghirardini (2011:4), there are some reasons why e-learning is appropriate to use: 1) delivering a significant amount of content to a large number of students, 2) students come from geographically isolated locations; 3) students have limited mobility, 4) students' limited daily time to devote to learning, 5) students have inefficient listening and reading skills, 6) students have ineffective speaking skills or shy types students, 7) students have at least basic computer and Internet skills, 8) developing students' homogeneous background knowledge on the topic, 10) learners are highly motivated to learn and appreciate proceeding at their own pace; 11) reusing the content for different students' groups in the future; 12) building cognitive skills rather than psychomotor skills, 13) the course concentrates on long-term rather than short-term training needs; 14) there is a necessity to collect and track data.

Chitra and Raj(2018) assured the importance of e-learning as it increases students' self-responsibility where they have to depend on themselves when deciding to study or not. It expands students' knowledge by researching using the World Wide Web. It provides teachers and students with various computer skills. It raises the students' ability to study on their own and enhances their critical thinking skills. Through e-learning, students become thinkers/learners/risk takers in a sheltered environment. They can be independent. Learning can take place anywhere, anytime and anyhow.

To emphasize the importance of using e-learning in teaching and learning English language, Ahmed and Mohamed(2020) investigated the effectiveness of an electronic software in developing English language skills (listening and speaking) for the primary stage students in Jordan. A quasi-experimental design of two groups: experimental and control was used. 50 sixth grade students were selected as study participants in the academic year 2018/2019. They were divided into two groups: the experimental group (N=25) who were studied the English language subject using an electronic software and the control group (N=25) who were studied the same English language subject in the traditional way. A pre-post achievement test was used to collect data. The results revealed the effectiveness of electronic software in the development of English language skills (listening and speaking). The researcher recommended to use the electronic software in schools because of its effectiveness in developing English language skills.

Mahmoudi(2020) investigated the effectiveness of online learning via smart phone in Iranian EFL students' grammatical accuracy improvement. The study adopted the experimental approach. 20 upper-intermediate male and female EFL students were selected as the participants of the study and divided into two groups: experimental group (N=10); was taught using online

classroom learning and a control group(N=10); was taught traditionally. The study instruments included a pre-post achievement test and a motivation scale. To analyze the obtained data, SPSS was used. The findings revealed that there were significant differences between the experimental and the control groups and proved the effectiveness of online learning via smart phone in improving EFL students' grammatical accuracy and increasing their motivation.

Hamouda(2020) aimed at exploring the effects of using the virtual classes on English majors' speaking skills and examining their attitudes towards the use of virtual classes. 70 students were chosen and who assigned into two groups: control (N=35) and experimental (N=35), after ensuring of their homogeneity by administering the Quick Placement Test. The virtual classes were used in teaching the experimental group, while the traditional method was used with the control one in the first term of the academic year (2019-2020). Data were collected through using an oral speaking test, an attitudinal questionnaire and Semi-structured interviews. The results indicated that the experimental group outperformed the control group in pronunciation, fluency, comprehension, grammar and vocabulary due to the virtual classes. The questionnaire and interview results also showed that students had positive attitudes towards using virtual classes as they found it helpful in improving their speaking skills.

Mohsen(2020) investigated the effectiveness of utilizing electronic audio-visual based strategy on developing EFL pronunciation skills among sophomores at the Faculty of Specific Education, Zagazig University. Aquasi-experimental design with two groups: control group (N=20) and experimental group (N=20) was adopted. A pre-post oral EFL pronunciation test was used to collect data. Obtained data were analyzed using SPSS. Findings revealed the Electronic Audio-Visual based strategy is effective in developing EFL pronunciation as it included purposeful material that increased students' engagement and interaction and provided them with multiple opportunities of exposure to the target language the thing that helped in enhancing their EFL pronunciation.

2.2.3 Types of E-Learning

Chitra and Raj(2018) confirmed that the types of e-learning include (1) **Text Driven:** content is simple and contains text, graphics, audio and test questions. A good example of text driven e- learning is Compliance courses. (2) **Interactive:** it is very similar to a text driven one but with an emphasis on interactive components to enhance the learning. Visuals, in general, including graphics, charts, diagrams are widely used all of which are likely to have an interactive aspect. (3) **Simulation:** e-learning is greatly interactive and depends heavily on graphics, video, audio and gasification. Significantly, there are often custom simulations to aid in learning acquisition, which include 3D components.

2.2.4 Tools of E-Learning

Chhabra (2012) mentioned some e-learning tools to be used in English learning and teaching including (1) **Internet:** it provides students with authentic materials in English and information in the form of articles, courses and conferences. The teacher can use internet for sending assignments to the students through e-mails and taking online exams. Parents can access their children's work online at any time. Students can get worksheets and notes from electronic online whiteboards. Schools are linked in a network and work on projects together and prepare materials online. Many free software are also accessible on Internet for students to use them. (2)**Youtube:** youTube videos can be employed for numerous English aspects like: improving vocabulary, accents, pronunciations and voice modulation. They provide authentic

examples of everyday English. YouTube videos can be used as a tool for improving students listening, speaking, reading and writing skills. **(3) Skype:** makes a highly collaboration between teachers and students anywhere in the world. It gives enormous opportunities for the students to join classes in other countries to practice their language skills. Teachers can provide mentoring or homework support to the students. The Students can read, present or perform for other students and also collaborate with other students on writing or research projects. **(4) Twitter:** Twitter's effect on engaging students in learning concepts is unlimited. The teacher can ask the students to choose a word of the week and tweet it around the network requesting synonyms, homonyms, and antonyms of the word. The teacher can also conduct Online Debates through Twitter. **(5) Smart boards:** provide a student-centered approach to teach language arts. They can be used to improve reading and comprehension and teach grammar and writing. With a smart board, teachers can combine video, audio, Web browsing and word processing to interactively teach students. **(6) Mobile phones:** as a learning tool has a wide variety of applications. The teacher can ask the students to make a photo documentary using the camera function on their mobile phones. The teacher can assign a theme for the documentary to the students. After taking a sufficient number of photos, the students can upload the documentaries prepared by them to websites such as Flickr and type narrative descriptions for each picture to share with their teachers, classmates, family and friends. **(7) Blog:** are a good way for sharing information and generating discussion. Teachers can use a free platform such as Blogspot, Wordpress, or Tumblr to host the blog. Teachers can use blogs to encourage students to write and assess their writing as students can post their writing homework on the blog instead of only giving it to the teacher. **(8) podcasting:** is a series of digital-media files that are distributed over the Internet using syndication feeds for playback on portable media players and computers. The teacher can download many free ESL podcasts on the Internet to use in class.

2.3 The Accelerated Learning Theory

2.3.1 What is the Accelerated Learning Theory?

Jenkins (2010: 2) mentioned that "accelerated learning (AL) is one of natural way of learning which is believed to produce "original character", because accelerated learning is essentially learning and life philosophy that seeks to humanize the learning process, as well as make the experience for the whole body, mind and personal". Lee et al (2010:191) stressed that "accelerated learning can be conceptualized as an approach to education in which learning and teaching methods emphasize active, holistic experiences designed to increase the learning that can be achieved within any given timeframe".

Beale (1997: 15) pointed that "accelerated learning has the characteristics which tend to: a flexible, happy, much the way, concerned with cooperation objectives, humane, multi-sensory, nurturing, centered activity, involves mental, emotional and physical well as prioritize the results". "Accelerated learning is a method of instruction that provides an atmosphere where students are able to absorb and retain concepts by overcoming traditional barriers of learning (McKeon, 1995:64)".

2.3.2 Principles of the Accelerated Learning Theory

Meier (2000:9-10) listed the accelerated learning principles: **(1) Learning involves the whole Mind and body:** Learning is not at all merely "head" learning (conscious, rational, "left brained," and verbal) but includes the whole body/mind with all its emotions, senses and receptors. **(2) Learning is creation, not consumption:** Knowledge is not something a learner

absorbs, but something a learner creates. Learning is literally a matter of creating new meanings, new neural networks and new patterns of electro/chemical interactions within one's total brain/body system. **(3) Collaboration aids learning:** Cooperation among learners speeds learning. A genuine learning community is always better for learning than a collection of isolated individuals. **(4) Learning takes place on many levels simultaneously:** Learning is a matter of absorbing many things at once. Good learning involves engaging learners on many levels simultaneously (conscious and para conscious, mental and physical) and using all the receptors , senses and paths it can into a person's total brain/body system . The brain is a parallel processor and thrives when it is challenged to do many things at once. **(5) Learning comes from doing the work itself (with feedback):** Learners learn best in context. Things learned in isolation are hard to remember and quick to evaporate.

(6) Positive emotions greatly improve learning: Feelings control both the quality and quantity of student's learning. Negative feelings obstruct learning. Positive feelings speed up it. **(7) The image brain absorbs information instantly and automatically:** The human nervous system is more of an image processor than a word processor. Concrete images are greatly easier to grasp and retain than are verbal abstractions.

2.3.3 Stages of the Accelerated Learning Theory:

Meier(2000:57) determined the phases of accelerated learning as follows:

- **Preparation phase:** aims at arousing students' interest, giving them positive feelings about the coming learning experience and putting them into the best state for learning. This can be carried out through the use of positive suggestions, pupil benefit statements, meaningful and clear goals, raising curiosity, the creation of a positive physical environment, the creation of a positive emotional environment, building a positive social environment, calming pupil's fears, getting rid of learning barriers, raising questions and posing problems, arousing pupil's curiosity and getting students completely involved from the beginning.
- **Presentation phase:** aims at helping the students learn the new learning material in interesting, enjoyable, relevant and multisensory ways which suite all learning styles. This can be achieved through applying collaborative pretests and sharing of knowledge, real-world phenomenon observations, the involvement of whole-brain and whole-body , interactive presentations, colorful presentation graphics and props, variety to meet all learning styles , partner- and team-based learning projects discovery exercises (personal , partnered , team-based), real-world, contextual learning experiences and exercises of problem-solving.
- **Practice phase:** aims at helping students incorporate and integrate the new knowledge or skill in many ways. This can be reached by using pupil processing activities, hands-on trial/feedback/reflection/retrial, simulations of real-world, learning games, exercises of action learning, activities of problem-solving, individual reflection and articulation, partner - and team-based dialogue, collaborative teaching and review, activities of skill-building practice and teach backs.
- **Performance phase:** aims at helping students use and extend their new skill or knowledge so that their learning sticks and performance continually progresses. This can be achieved by employing immediate real-world application, producing and implementing action plans, following-through reinforcement activities, postting-session reinforcement materials, on-going coaching, performing evaluation and feedback, peer supporting activities and supportive organizational and environmental changes.

2.3.4 Importance of Utilizing the Accelerated Learning Theory within Classrooms

Smith(2007:23) stated that accelerated learning enables teachers in classrooms to increase students' motivation and achievement through providing validated lifelong learning skills concentrated on an understanding of how we learn rather than a proper concern with what we learn. Concentrating on the importance of applying accelerated learning in EFL learning, Waziri et al(2020) examined the effect of accelerated learning on Students` Reading comprehension and vocabulary. Eighty students were selected as the study sample. They were distributed into two groups: an experimental(N=40) taught through accelerated learning and a control(N=40) taught conventionally. Pretest and posttest were applied to the groups. The data obtained were analyzed using independent t-test. The findings revealed that accelerated learning is very much effective in enhancing students` reading comprehension. Students taught through Accelerated Learning techniques performed better than those taught conventionally in vocabulary retention. It is recommended that Accelerated Learning should be used to develop students` reading comprehension during class sessions and school authorities should encourage teachers to use Accelerated Learning in teaching vocabulary and in other language aspects.

Khalandi and Zoghi (2017) proved the effectiveness of Neuro-Linguistic Programming (NLP) strategies and specifically Accelerated Learning on Iranian EFL learner's listening comprehension and detailed listening. 30 Iranian EFL students studying as Cambridge ESOL KET students were selected through stratified sampling procedure. They were divided in two control and experimental groups with 10 and 20 learners in each group respectively. Each group took a VAK questionnaire, a pre –test and a treatment process of 12 sessions and a posttest. In the experimental group the teacher conducted a set of short videos and mixed methods based on Accelerated Learning as one of Neuro-linguistic programming techniques. In control group a set of limited short videos conducted. On the last session, the participants of both groups took a post- test to measure their achievement of listening comprehension and detailed listening. Findings showed that accelerated learning is much more dynamic and has a significant effect on listening comprehension, detailed listening and different learning styles.

Lestari et al (2018) investigated the effect of accelerated learning strategies and achievement motivation on the results of learning English at SMP Negeri 30 Medan. Subjects of the study were 254. The research method used is a quasi-2x2factorial design experiment. The data analysis technique used is descriptive and inferential statistical techniques. The results of the study concluded that: (1) the average English learning outcomes of students taught with Accelerated Learning strategies were higher than Expository learning strategies; (2) the average English learning outcomes of students who have higher achievement motivation are lower achievement motivation; (3) there is an interaction between learning strategies and Achievement Motivation towards the results of learning English.

Sulaiman (2015) investigated the implementation of accelerated learning program in teaching English at an accelerated learning class. The research was descriptive qualitative. The primary data were collected by interviewing an English teacher, observing his teaching process and interviewing accelerated learning students. Teacher and students were chosen as respondents or informants based on the characteristic of data needed. Data were collected through a participative observation, an interview and documentation. The research findings proved the progressive effect of implementing the accelerated learning program.

3. Study Method

3.1 Design and Participants

The present study employed both descriptive and quasi-experimental designs. The former was adopted as a major source of data collection; the latter was used during applying the Electronic Accelerated Learning Theory Program. A pre-post-test was given to both experimental and control groups before and after the treatment. The study participants were 40 1st year preparatory school students from Al Ghar preparatory school, Sharkia Governorate, Egypt enrolled in the 1st term of the school year (2022- 2023).

3.2 Study Instruments

The following instruments were designed (by the researcher) to measure the effectiveness of the Electronic Accelerated Learning Theory Program and test the hypotheses of the current study. They included Vocabulary Use Checklist and Vocabulary Use Test.

3.3 The Study Material

The program of the study was prepared by the researcher. It was electronically designed according to the principles of the Accelerated Learning Theory. The program aimed at developing EFL 1st year preparatory school students' vocabulary use. The content of the current program is organized in the form of sessions suitable for 1st year preparatory school students. It includes 10 sessions. Each session included; objectives, teaching aids, teaching methods, content, procedures, activities and evaluation. The sessions are based on 1st year preparatory school Students' Book "New Hello!" Each session includes the target vocabulary and the grammar related to it. YouTube educational videos were used in introducing the new vocabulary. The grammar related to the vocabulary use was introduced in the program via online designed lessons.

3.4. The Study Hypotheses: (a) there would be a statistically significant difference at the level of (0.05) between the mean score of the experimental group students and that of the control group in the post administration of the vocabulary use test favoring the experimental group. (b) The electronic program based on the Accelerated Learning Theory would have effectiveness in developing 1st year preparatory school students EFL vocabulary use.

4. Results and Discussion

4.1 The Results of the Study

Data obtained were statistically analyzed. Independent samples T-test was used to compare the mean score of the experimental group and that of the control group in the vocabulary use skills post-test. Paired Samples T-test was used to find out the difference between the mean scores of the pre-post administration of the experimental group of the study instrument. Black Modified Gain Ratio was used to calculate the effectiveness of the program in developing vocabulary use skills.

4.2 Validating the Study Hypotheses

- **Hypothesis one:** To test the second hypothesis which stated that "There would be a statistically significant difference at the level of (0.05) between the mean score of the experimental group students and that of the control group in the vocabulary use skills post-test favoring the experimental group", Independent samples T-test was used. Table (1) shows that the mean scores of the experimental group and that of the control group in the vocabulary use skills post-test differ significantly favoring the former. T-value (4.32) which is significant at (0.01) indicated that the experimental group students made an improvement as their mean score was higher than that of the control group. Mean score of the experimental group in the post test was (25.05) while the control group mean score of the post -test was (17.35). These results provide evidence to support the second hypothesis.

- Hypothesis Two:** to test the fifth hypothesis which stated that "The electronic program based on the Accelerated Learning Theory would have effectiveness in developing 1st year preparatory school students' EFL vocabulary use skills", paired samples T-test was used to compare the two means. Table (2) above shows a significant increase in the experimental group students' performance in vocabulary use skills post-test compared to their pre- administration. The higher mean is a positive indication that using the electronic program based on the Accelerated Learning Theory improved students' vocabulary use skills. It is apparent that the experimental group's mean score of the post-test was higher than that of the pre-test. The mean score of the experimental group in the pre-test was (10.10) whenever in the post test was (25.05). T-value (7.29) which is significant at 0.01 indicated a significant progress in the experimental group post performance. Moreover, the effectiveness size of the experimental group posttest had shown a large influence of the electronic program based on the Accelerated Learning Theory as it is (1.24) which is large. This provides enough evidence to support the fifth hypothesis.

Table (1) Independent Samples T-test Results of Vocabulary Use Skills Post Test Comparing the Experimental and Control Groups.

Groups	Number	Mean	Std. Deviation	T-Value	Sig.
Control	20	17.35	3.78	4.32	0.01
Experimental	20	25.05	1.91		

Table (2) Paired Samples T-test Results of the Pre-Post Vocabulary Use Skills Test of the Experimental Group Students.

Test	No.	Mean	SD	T-Value	Sig.	Effectiveness Size	Effectiveness Level
Pre	20	10.10	1.18	7.29	0.01	1.24	Large
Post	20	25.05	2.73				

To sum up, the study results revealed that there is a statistically significant difference at (0.01) between the mean score of the experimental group and that of the control group in the vocabulary use skills post-test favoring the experimental group. The electronic program based on the Accelerated Learning Theory has effectiveness in developing 1st year preparatory school students' EFL vocabulary use skills.

5. Discussion

The findings presented in this chapter would be discussed in the light of the study questions. The main question of the current study was: "**What is the effectiveness of an electronic program based on the Accelerated Learning Theory in developing EFL 1st year preparatory school students' vocabulary use?**". The above question was consequently sub-divided into some other sub-questions as follows:

1. **The first question:** "What are the vocabulary use skills needed for EFL 1st year preparatory school students?."

To answer this question, the researcher collected all the vocabulary use skills to design a vocabulary use skills' checklist. After exposing it to jury members, they determined the most appropriate vocabulary use skills needed and suitable for the 1st year preparatory school

students. They omitted some skills, replaced others and modified some others until the checklist came to its final form. Based on this checklist, the vocabulary use skills' test had been designed. It is the current study instrument to be administered before and after the treatment to measure the students' level of improvement in the vocabulary use skills.

2. **The second question:** "How can an electronic program based on the Accelerated Learning Theory be designed to develop EFL 1st year preparatory school students' vocabulary use skills?"

To answer this question, an electronic program based on the Accelerated Learning Theory was designed by the researcher to develop 1st year preparatory school students' vocabulary use skills. The program included the learning objectives, the teaching aids, and the methods of teaching, the content of the lessons, some activities and home assignment. Moreover, students' handouts were also designed so as for students to practice several activities related to vocabulary use skills. The students' improvement in the post administration of the vocabulary use skills test could be attributed to the fact that while using the electronic program based on the Accelerated Learning Theory, students were completely involved in the learning process and played active roles during the sessions. They were interested in participating in group discussion, using the computer techniques and practicing the activities which were easily answered, as they took it as a kind of fun. Moreover, the program procedures which depend on the Accelerated Learning Theory principles and stages proved effectiveness in developing EFL 1st year preparatory school students' vocabulary use.

3. **The third question:** "What is the effectiveness of an electronic program based on the Accelerated Learning Theory in developing EFL 1st year preparatory school students' vocabulary use?"

To answer this question, a pre-post vocabulary use skills test was designed and exposed to jury members to determine its suitability for the 1st year preparatory school students. To examine the effectiveness of the electronic program based on the Accelerated Learning Theory in developing vocabulary use skills, the vocabulary use skills' test was conducted twice for the two groups (The experimental and the control). Improvements in the students' achievement in the vocabulary use skills post -test, could be attributed to using the electronic program based on the Accelerated Learning Theory. Results shown in table (1) revealed that the experimental group outperformed the control group in the post administration of the vocabulary use test. Table (2) showed that the experimental group students seem to acquire the vocabulary use skills and excelled them than before the treatment. Accordingly, the electronic program based on the Accelerated Learning Theory proved effectiveness in developing EFL 1st year preparatory school students' vocabulary use skills.

Based on the above, it could be concluded that the experimental group taught through the electronic program based on the Accelerated Learning Theory outperformed the control one in the post administration of the vocabulary use test, since there were statistically significant difference at 0.01 between the mean score of the experimental group and the control group in favor of the experimental group. The students' progress in vocabulary use skills could be attributed to applying the principles and stages of the Accelerated Learning Theory which provided a rich and interesting learning environment where the students' anxiety and embarrassment were greatly reduced. Students were also interested in learning vocabulary use lessons in the computer laboratory rather than the traditional classroom settings. The different videos, colored pictured and online designed grammar lessons also helped students meet their learning styles and concentrate more in the vocabulary use lessons.

During experimentation, a successful cooperative environment had been created. It made students active participants in the learning process and reduced the burden on the teacher. As more emphasis was mainly placed on students' practice rather than mere receiving information. The researcher was just a facilitator of instruction who only guided, helped and encouraged her students to acquire the needed skills. She provided them with different activities that reduce their sense of boredom acquired from the traditional method of teaching in which students are passive learners spending much of their time sitting in the classroom just listening, repeating or reading words and sentences many times. Through using the electronic program based on the Accelerated Learning Theory, the focus was moved from being a teacher centered to student-centered education.

On the other hand, the control group students' scores were low. They developed vocabulary use skills in the classroom environment which made them feel anxious about learning vocabulary use skills. The students encountered some problems, i.e. disability to pronounce words, disability to use the acquired vocabulary and hesitation in front of their classmate. They were not able to master vocabulary use skills. This may be due to the difficulty of developing these skills through the traditional teaching methods. The results of the current study match with the results obtained by (Waziri et al, 2019) who proved the effect of using accelerated learning on students' reading comprehension and vocabulary. Going along with these results, Shams et al (2019) reached the result that applying accelerated learning enhanced students' understanding of English language. Also, Khalandi and Zoghi (2017) proved the effectiveness of Neuro-Linguistic Programming (NLP) strategies and specifically Accelerated Learning on Iranian EFL learners' listening comprehension and detailed listening.

Following the same line, Lestari et al (2018) successfully used the accelerated learning strategies to improve students' achievement in learning English language and proved effective. Moreover, Sulaiman et al (2015) investigated the implementation of accelerated learning program in teaching English at an accelerated learning class. The findings proved the progressive effect of implementing the accelerated learning program.

To sum up, the aforementioned discussion revealed that all hypotheses of this study were accepted and proved that the electronic program based on the Accelerated Learning Theory was effective in improving EFL 1st year preparatory school students' vocabulary use.

6. Conclusion

From the previous results, it is obvious that, the Electronic Accelerated Learning Theory Program proved effectiveness in developing EFL 1st year preparatory school students' vocabulary use. It enables the experimental group participants manage the intended vocabulary and master its use. The included activities improved their vocabulary use skills. Consequently, the participants succeeded in pronouncing words correctly, spelling words correctly, rearranging words to form a correct sentence, being familiar with homophones, identifying words' constituents; stem and affixes, identifying the grammar related to the vocabulary item, using punctuation correctly; short form, providing synonyms and antonyms of different word, guessing the meaning of new words from a given context and identifying the collocations of words that commonly occur together.

It was also concluded that the Electronic Accelerated Learning Theory Program proved effectiveness in motivating 1st year preparatory school students to learn EFL vocabulary use where the experimental group participants could practice vocabulary use in a different and

enjoyable environment in the computer laboratory rather than the conventional classroom setting.

To sum up, the Electronic Accelerated Learning Theory Program is helpful to 1st year preparatory school students and more successful in teaching EFL vocabulary use through organizing and presenting the intended vocabulary; its form, meaning and use in a way in order for them to master it. So, the current study provided evidence of the effectiveness of using the Electronic Accelerated Learning Theory Program in developing 1st year preparatory school students' EFL vocabulary use.

7. Recommendations

The Accelerated Learning Theory had been highlighted as a key area of learning. So, EFL instructors are recommended to use strategies and techniques related to the Accelerated Learning Theory as alternatives to traditional ways in teaching EFL vocabulary use. EFL instructors are advised to master the computer skills and have the opportunity to learn about how to design and use electronic programs. It is advisable to use online designed lessons in teaching the grammar related to vocabulary use rather than traditional methods.

It is recommended to use you tube educational videos in teaching EFL vocabulary as they proved to be effective in this respect. EFL instructors are recommended to play the roles of guides not the only source of information for students. So as to help students involve in the learning process. It is preferable to vary the activities and use activities that support working cooperatively. It is preferable for students to get feedback on their vocabulary use without the threat of face- to – face confrontation. This can be done through the electronic program. Students should have the chance to practice their vocabulary use skills regardless the time and effort needed to master these skills.

8. Suggestions for Further Research

- 1- Investigating the effect of an Electronic Accelerated Learning Theory Program on students' motivation and attitudes towards TEFL.
- 2- Further research is recommended in using an Electronic Accelerated Learning Theory Program for enhancing other language skills as listening, speaking and writing.
- 3- A suggested program based on the Accelerated Learning Theory to develop students' communication skills and self -confidence.

References

- Abdel Hamid, E.(2021). Using E- Mind Mapping Strategy in Developing EFL Preparatory Stage Students' Vocabulary Use and Metalinguistic Awareness Skills. M.A. Thesis. Faculty of Education. Zagazig University.
- Afzal, N.(2019). A Study on Vocabulary Learning Problems Encountered by BA English Majors at the University Level of Education. Arab World English Journal. 10(3), 81-98.
- Ahmed, F. & Mohamed, A.(2020). The Effectiveness of an Electronic Software in Developing English Language Skills (Listening and speaking) for the Primary Stage Students in Jordan. Middle East University.
- Al-Atabi, A.(2020). E-Learning in Teaching. Retrieved on 22nd of December 2021 From: <https://www.researchgate.net/publication/341684491>.
- Al-Khasawneh, F.(2019).The Impact of Vocabulary Knowledge on the Reading Comprehension of Saudi EFL Learners. Journal of Language and Education, 5(3), 24-34.

- Al-maraghy, E.(2022). The Effect of Semantic Mapping on Developing Primary Stage Pupils' EFL Vocabulary Use and Reducing Their Speaking Anxiety. M.A. Thesis. Faculty of Education. Zagazig University.
- Arkorfu, V. & Ghana, N.(2015). The Role of E-Learning; Advantages and Disadvantages of its Adoption in higher Education. *International Journal of Instructional Technology and Distance Learning*. 12(1), 29-42.
- Bai, Z.(2018). An Analysis of English Vocabulary Learning Strategies. *Journal of Language Teaching and Research*. 9(4), 849-855.
- Beale, D.(1997). Accelerative Learning and the Emerging Science of Wholeness. *Journal of Accelerated Learning and Teaching*. 22 (2): 9-32.
- Carston, R.(2013). Word Meaning and Concept Expressed. Retrieved on 27th of March 2022 from:<https://www.degruyter.com/document/doi/10.1515/tlr-2012-0022/html?lang=en/>

- Chhabra, P.(2012). Use of E-Learning Tools in Teaching English. *International Journal of Computing & Business Research*. Chitra, A. & Raj, M.(2018). E-Learning. *Journal of Applied and Advanced Research*. 3(1), 511-513.
- Emam, R.(2020). Enhancing EFL Receptive and Productive Vocabulary Learning Through Integrating Incidental and intentional Learning Among Official Language Preparatory School Pupils. *Journal of Faculty of Education*. 4(121), 25-52.
- Flohr, S. (2008). Presenting and Teaching Vocabulary in the EFL Classroom. Retrieved on 2nd of May 2022 from: <https://www.grin.com/document/142931>
- Ghirardini, B.(2011). *E-Learning Methodologies. A Guide for Designing and Developing E-Learning Courses: A Hand Book*. Italy: FAO.
- Gogoi, G.(2015). Vocabulary: Active and Passive Vocabulary. Various Techniques of Teaching Vocabulary. Retrieved on 3rd of September 2021 from: <https://www.the-criterion.com/vocabulary-active-and-passive-vocabulary-various-techniques-of-teaching-vocabulary>.
- Hamouda, A.(2020). The Effect of Virtual Classes on Saudi EFL Students' Speaking Skills. *International Journal of Linguistics, Literature and Translation*. 3(4), 175-204.
- Hammmer, J. (2007). *The Practice of English Language Teaching*. Harlow: Pearson Longman.
- Jacksi, K., Sulaiman, M.& Saeed, R.(2021). The Importance of E-Learning in the Teach. Processor Secondary Schools /Review Article. *Academic Journal of Nawroz University (AJNU)*. 10(1), 53-62.
- Jenkins, D.(2010). *A Model for Accelerating Academic Success of Community College Remedial English Students: Is the Accelerated Learning Program (ALP) Effective and Affordable?* Teachers College, Columbia University.
- Khalandi, C. & Zoghi, R. (2017). The Effect of NLP (Accelerated Learning) on Iranian EFL Learners' Listening Comprehension. *Theory and Practice in Language Studies*. 7(11), 1139-1148.
- Lee, N. &Horsfall, B. (2010). Accelerated Learning: A Study of Faculty and Student Experiences. *Innovative Higher Education*. 35(3), 191-20.
- Lestari,M., Saragih,A. & Badiran, M.(2018). The Effect of Accelerated Learning Strategies and Achievement Motivation on the results of learning English at SMP Negeri 30 Medan. *Proceedings of the 3rd Annual International Seminar on Transformative Education and Educational Leadership (AISTEEL 2018)*.
- Macis, M., & Schmitt, N. (2017). Not just 'small potatoes': Knowledge of the idiomatic meanings of collocations. *Language teaching research*. 21(3), 321-340.
- Mahmoudi, M.(2020). The Effect of Online Learning on Grammatical Accuracy Among EFL Upper-Intermediate Learners. *Journal of Language Teaching and Research*. 11(6), 1011-1016.
- Marius,E. (2018). Practical Strategies to Teach Vocabulary Through Games in EFL Beginner Classes: The Case Study of Some Secondary Schools in Abomey Region. *International Journal of Education and Research*. 6(12), 37-54.
- Mckee, J. (1995). What is This Thing Called Accelerated Learning? *Training and Development*. 49(6), 64-66.
- Meier, D. (2000). *The Accelerated Learning Hand Book: A Creative Guide to Designing and Delivering Faster, More Effective Training Programs*. New York: McGraw
- Min, Y.(2013). Vocabulary Acquisition: Practical Strategies for ESL Students. *Journal of International Students*. 3(1), 64-69.
- Mohsen, M.(2020). An Electronic Audio-Visual Based Strategy for Better Sophomores' EFL Pronunciation Skills. *PJAE*. 17(7), 14533-14549.
- Montgomery, J.(2007). *The Bridge of Vocabulary: Evidence Base Activities for Academic Success*. Retrieved on 24th November 2021 From: [https://srsdeaf.org/Downloads/Bridge of Vocabulary.pdf](https://srsdeaf.org/Downloads/Bridge%20of%20Vocabulary.pdf).

- Muhmuda, D.(2014) The Correlation between Students' Writing ability and their Vocabulary Mastery. *Exposure Journal Pendidikan Bahasa Dan Sastra Inggris*. 3(2), 92-206.
- Naeimi,M.(2015). Vocabulary Acquisition Through Direct and indirect Learning Strategies. *English Language Teaching*. 8(10), 142-151.
- Nation, I.(2001).*Learning vocabulary in another language*. 2nd Edition. Cambridge: Cambridge University Press.
- Neuman, S. & Dwyer, J. (2009). Missing in Action: Vocabulary Instruction in Pre-K. *The Reading Teacher*, 62(5). 384–392. \
- Nordquest, R.(2019). Phonology: Definition and Observations. Retrieved on 1st of December 2021 From: <http://thoughtco.com/phonology-definition-1691623>
- Pan,Q.& Xu, R.(2011). Vocabulary Teaching in English Language Teaching. *Theory and Practice in Language Studies*. 1(1), 1586-1589.
- Richards, J. & Renandya, W.(2002). *Methodology in Language Teaching: An Anthology of Current Practice*. New York, NY: Cambridge University Press.
- Salam, U.(2021). Students' Difficulties in Learning Vocabulary. *English Community Journal*. 5(1), 46-53.
- Seifert, D.(2016). Top 5 Reasons Why Vocabulary Matters. Retrieved on 15th of October 2021 From: <https://infercavocabulary.com/top-5-reasons-why-vocabulary-matters/>
- Shams, A.,Arshad, M.& Ahmed, G.(2019). A Comparative Study to Analyze the Efficiency of Accelerated Learning to Facilitate the Understanding of English Language at Secondary Level. *Global Social Science Review(GSSR)*. 4(1), 248-254.
- Smith, A.(2007). *Accelerated Learning in Practice*. Network Educational Press Ltd.
- Solati-Dehkordi, S. & Salehi, H.(2016). Impact of Explicit Vocabulary Instruction on Writing Achievement of Upper-Intermediate EFL Learners. *International Education Studies*. 9(4), 141-154.
- SSAT(2013). Accelerated learning. Retrieved on 2nd of September 2022 From: https://webcontent.ssaturk.co.uk/wp-content/uploads/2016/11/24100423/TEEP-A4-6pp_Accelerated-learning.pdf.
- Stahl, S. (2005). Four problems with teaching word meanings. *Teaching and learning vocabulary: Bringing research to practice*. 95-114.
- Sulaiman,A.(2018). The Implimentation of Accelerated Learning Program in Teaching English at Accelerated Learning Class in Madrasah. State University of Makassar, Indonesia.
- Susanto, H.(2021).A Study on Students' Difficulties in Learning Vocabulary. *Journal of English Language and pedagogy*. 4(2), 46-50.
- Thornbury, S. (2002). *How to Teach Vocabulary*. London: Longman.
- Waer, H.(2011).Using Gamification in EFL Vocabulary Learning and Learners' Attitudes Towards Gamification Use. *Journal of Scientific Research in Education*. Ain Shams University. 22(2), 547-570.
- Waziri, M., Mustapha,M. Bukar, M.(2018). Effect of Accelerated Learning on Students' Reading Skill in English Language. *Journal of Education in Developing Areas*. 27(2).
- Webb, S.(2020) *The Routledge Handbook of Vocabulary Studies*. Routlidge, New York.