Effect of Poe AI-Based Program on Enhancing EFL Vocabulary Learning of Saudi Foundation Year Students and their Interests

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Abstract

Objectives: The study aims to explore the effects of the Poe AI-based program on enhancing EFL vocabulary learning of Saudi foundation year students and their interests.
Methods: I designed two instruments to gather the research data: an EFL vocabulary knowledge pre/post-test and an interest pre/post-scale for assessing their vocabulary knowledge and interest level in learning it.
Results: The statistical analysis of the research data proved that EFL Saudi foundation year students enhanced their vocabulary learning and interests due to the Poe AI-based program. There was a positive relationship between EFL vocabulary learning and students' interest in learning it.
Conclusions: Utilizing the Poe AI-based program positively affected vocabulary learning and interests.
Implications: There is a need for future studies to investigate the effects of Poe on university students' critical thinking, and 21st century skills.
Keywords: foundation year, interest, Poe AI, Saudi, vocabulary.

INTRODUCTION

Vocabulary learning enhances English proficiency across all facets of communication (Godwin-Jones, 2010:4). As a crucial indicator for evaluating linguistic proficiency, it affects highly both academic and professional progress (AL-Qahtani, 2015:25). Notwithstanding the significance of vocabulary, most of Saudi foundation year students continue to encounter challenges in mastering it. One such challenge is the ability to use the new words in various contexts (Alhebshi & Gamlo, 2022). It is evident from the numerous studies such as AL-Qahtani (2015); Alhebshi, & Gamlo (2022); Marpaung (2022); Al-Ashmawi (2024) & Khalid (2024) that vocabulary learning plays a vital role in EFL proficiency, influenced by various factors such as interest in learning.

Learning cannot occur without interest which serves as a motive for it and represents a student's inclination to learn or engage in various activities (Marpaung, 2022: 8). As a motivational mechanism, it enhances the learning process, shapes academic and career paths, and is crucial for achieving academic success. It encompasses a psychological state that influences learning on a specific topic and a lasting tendency to reengage with that topic over time (Reber, Canning & Harackiewicz, 2018:1). Nevertheless, the majority of students typically exhibit a lack of interest in learning vocabulary. Consequently, enhancing their linguistic proficiency becomes challenging (Zhao, 2014: 308). This may be due to the teaching methods employed by the instructor that don't arouse the students' interest to learn vocabulary (Marpaung, 2022: 1).

Vocabulary necessitates a process of repeated exposure, facilitated by AI chatbots (Mchucha, Zamhar & Rose, 2017: 46), which aid students in effective memorization, with some incorporating various tools to enhance their interest in learning (Boyinbode, 2018:

184). One such chatbot is Poe (Platform for Open Exploration) developed by Open AI

and Anthropic (Gülen, 2023). It is an AI technology that helps provide prompt responses to users' inquiries. It employs deep-learning algorithms designed to analyze vast amounts of data and facilitate learning. To assess its effectiveness, Pham et al. (2024) have incorporated Poe AI into their teaching strategies to enhance students' interest in learning. It has been suggested to adapt teaching methods to include AI chatbots. According to Shin and Lee (2024:6), it has enhanced natural conversations on various topics, in contrast to other scenario-based chat bots. Furthermore, Zahran (2025) has highlighted the effectiveness of the Poe Chat GPT-based TPACK model in improving EFL teachers' performance and their students' vocabulary learning.

Based on the researcher's teaching experience, it has been noted that a significant number of foundation year students at the NBU possess a limited vocabulary for effective communication. They struggle to utilize new collocations or word families and have difficulty recognizing synonyms or antonyms. Additionally, they tend to forget what they have memorized due to insufficient practice of these words in interactive settings. Thus, a research gap has emerged concerning the general lack of interest in EFL learning, particularly in vocabulary. Students should be encouraged to re-engage with learning tasks over time through the use of AI applications both inside and outside the classroom.

LITERATURE REVIEW

Vocabulary learning is getting "the complete number of words to convey ideas and articulate meaning". It is expressed by Marpaung (2022: 8) as "a collection of words employed to speak, listen, read, and write for the purpose of communication". Sharaf (2024:12) has declared that gaining more vocabulary can't be without interest which is the main indicator to engage in the learning task. As noted by Marpaung (2022: 10), the presence of interest in learning motivates students to be more engaged and actively participate in educational activities. According to Kim (2018), integrating AI technology into the learning process to generate and present educational resources that fit all the students' styles of learning instead of one size that fits all method.

Vocabulary Learning Requirements and Challenges

To achieve vocabulary mastery, students ought to identify the meaning, form, and usage of words, phrases or chunks (Rohmatillah, 2014:72). This process which begins with exposure to words and lexical phrases within the input is illustrated by Nation (1990: 31) in table 1.

Table 1: Aspects of Vocabulary Learning (Nation, 1990: 31)

Form	Spoken	What does the word sound like? How is the word pronounced?
	Written	What does the word look like? How is the word written and spelled?
	Word Form	What parts are recognizable in this word?

		What word parts are needed to express the meaning?
Meaning	**Form and meaning**	What meaning does this word form signal? What word form can be used to express this meaning?
	Concepts and referents	What is included in the concept? What items can the concept refer to?
	Associations	What other words does this make us think of? What other words could we use instead of this one?
Use	**Grammatical Functions**	In what patterns does the word occur? In what patterns must we use this word?
	Collocations	What words or types of words occur with this one?
		What words or types of words must we use with this one?
	Constraints on Use (register, frequency …)	Where, when, and how often would we expect to meet this word?
		Where, when, and how often can we use this word?

According to Yaacob et al. (2019: 4), vocabulary learning requires these strategies: (a) Deducing meanings from context by utilizing prior knowledge of parts of speech and other grammatical elements, (b) Acquiring the word form to master the pronunciation and spelling of unfamiliar terms, (c) Reinforcing word form and meaning in memory across a variety of examples to solidify the form and meaning in memory, and (d)Employing the word with all its potential collocations as frequently as possible.

The challenges, associated with vocabulary learning, stem from several factors: the students' previous experiences, their native language, the methods employed in teaching or learning the words, and the inherent complexity of the words themselves (Nation, 1990: 33). Consequently, students struggle to apply vocabulary in diverse contexts (Susie Kusumayanthi, 2021: 444) and encounter difficulties regarding their proper usage (Zahran, 2022). Additional factors identified by Rohmatillah (2014: 69) include: (a) Acquiring words can be challenging without understanding their pronunciation, (b)Discrepancies between sound and spelling often lead to errors, (c)Longer words tend to be more difficult to comprehend than shorter ones, and (d) When two words share similar meanings, students may confuse them.

Thus, Zahran (2022) has confirmed that in larger EFL classrooms, factors like insufficient feedback, time limitations, and introverted students impede their interest in vocabulary learning. In connection with EFL vocabulary learning and the interest in reading short stories, Khalid (2024) established the beneficial influence of interest on vocabulary learning.

Interest in Learning EFL Vocabulary

Interest is a positive feeling to engage in activities with enthusiasm, understand the meanings of vocabulary and utilize it for communication (Marpaung, 2022: 33). Subsequently, students can gain interest from various forms of external support (such as engaging lectures and school field trips). When they encounter unfamiliar topics, instructors have the potential to create environments that cultivate new interests during the first two phases (triggered and maintained situational interest), and enhance these interests in the latter two phases (emerging and well-developed individual interest) (Reber, Canning & Harackiewicz , 2018:3).

Riamin (2016) noted that interest, regarded as a vital indicator of learning, originates from within the student rather than external influences. It may also arise from the extent to which instructors present materials in an engaging and comprehensible way. As an internal motivator to enhance understanding and apply learning in daily life (Achru, 2019), it can act as a powerful motivator, fostering study habits that encourage students to concentrate diligently on their education (Lie & Triposa, 2021), and serve as an intrinsic drive that inspires them to learn voluntarily and without pressure, leading to optimal learning outcomes. The research conducted by Rumiyati, Kusumanigrum; Purba, and Binar (2024: 45) has indicated that students' interest in learning has increased with the improvement of online learning methods.

Factors Affecting the Interest

Investigating various elements that influence interest, Junianto and Mahmudi (2016) have emphasized the detrimental impact of traditional teaching methods, such as lecturing, on students' interest. They concluded that instructor-centered strategies frequently fail to captivate students, resulting in diminished learning interest and academic performance.

Interest is influenced by both internal and external factors. Lie and Triposa (2021) have characterized internal factors as personal attributes that affect a student's learning interest, including intelligence, curiosity, and perseverance. Conversely, Dalyono (2010) has noted that external factors, such as teaching methods, can either enhance or reduce interest.

Zhao(2014: 309) categorizes students' interest into three distinct types: (a) Direct Interest: is capturing students' attention, however, it is challenging to maintain over an extended period due to the complexity of the teaching material, (b)Indirect Interest: In contrast to direct interest, this type exhibits greater stability and is more conducive to active learning, and (c)Stable Interest: arises from indirect interest and serves as an intrinsic motivation for students' autonomous learning, becoming a fundamental aspect of their personal development. The research conducted by Rumiyati, Kusumanigrum; Purba, and Binar (2024: 45) has indicated that students' interest in learning has increased with the improvement of online learning methods. To foster interest in EFL, Zhao (2014: 310) advises instructors to: (a)Adjust teaching strategies to alleviate students' learning challenges, (b)Teach vocabulary related to topics that engage students, (c)Provide emotionally charged reading demonstrations to engage students' visual senses, and (d)Integrate technology into their classroom practices

Poe AI Chatbot

The incorporation of AI in the classrooms of EFL is evolving, as it not only aids students in overcoming the challenges they face during their educational journey but also facilitates their attainment of proficiency in the target language. Al-Raimi et al. (2024) have

demonstrated that the utilization of AI has significantly influenced the teaching and learning processes.

Cultivating students' interests is believed to yield numerous positive outcomes. Research indicates that generative AI-driven context personalization has a beneficial impact on teach interests (Leong et al., 2024). Furthermore, Yang (2022) has identified that AI chatbots can engage students in conversations when the conversational materials are well-crafted.

Advantages of Poe AI Chatbots

Poe is an advanced AI chatbot equipped with various capabilities, including the imitation of human conversation, grammar checking, translation, answering inquiries, and facilitating real conversations with students (Adiguzel et al., 2023). As a complimentary educational application, it is capable of generating vocabulary quizzes at varying levels tailored to the students' proficiency and the necessary vocabulary. It also produces texts, narratives, and vocabulary quizzes (Open AI, 2023a). The utilization of AI technologies enables the execution of tasks that were beyond human capabilities, such as conducting phoneme-by-phoneme analysis and assessing the rate of improvement in language skills over time. AI tools could create a pressure-free environment for students who might lack confidence in their communication abilities (Manimurasu, 2024: 25).

In investigating the influence of AI chat- bots on Korean EFL students' vocabulary learning and their attitudes towards education, Kim (2018) has found that the experimental group has demonstrated significant vocabulary improvement. Furthermore, their perceptions of vocabulary learning underwent a positive transformation, resulting in heightened motivation, interest, and confidence in English. Susie Kusumayanthi (2021) has implemented Kahoot to boost students' engagement concerning vocabulary and their interests. To investigate students' attitudes, cognitive load, and motivation regarding vocabulary learning, Alhebshi and Gamlo (2022) have employed the mobile game "Quizizz" to improve the vocabulary of 56 Saudi foundation year students. Consequently, EFL instructors are advised to incorporate mobile game-based learning into their vocabulary instruction. To boost vocabulary learning interest among VIII grade students, Marpaung (2022) has implemented a mime game. Students, who have exhibited a lack of interest, demonstrate poor memorization of words and are unaware of their meanings. To assess the attitudes of EFL students regarding the utilization of chatbots in their educational process, particularly focusing on usability, accuracy, and evaluation, Mohamed and Alian (2023) discovered that chatbots attracted students, leading them to become more autonomous and engaged.

To assess the effectiveness of AR technology in vocabulary enhancement and its influence on the interest of 130 students aged 14 to 15 (9th-graders), Belda-Medina and Marrahi-Gomez (2023) have reported favorable attitudes and significant interest in the integration of AR in English education. In his research, Ho (2024) emphasized the beneficial impact of Chat GPT on the acquisition of ESP vocabulary, aiming to understand students' behaviors, perceptions, and attitudes towards its use. Zahran (2025) demonstrated the effectiveness of the Poe Chat GPT-based TPACK model in improving the performance of EFL teachers and enhancing their students' vocabulary. Al-Ashmawi (2024) confirmed the effectiveness of a proposed strategy aimed at improving vocabulary and reading comprehension skills.

Purpose of the Study, Research Questions, and Hypotheses

The purpose of the study is to investigate the main research question which is "What are the effects of Poe AI- based program on enhancing EFL Saudi foundation year students' vocabulary and their interests?" To answer this question, the researcher tested the following hypotheses:

1. "There is a statistically significant difference among the mean scores of both the control and experimental group students on the post-administration of EFL vocabulary test at the level of α ≥ 0.05, favoring the experimental group".
2. "There is a statistically significant difference among the mean scores of the experimental group students on the pre/post-administration of EFL vocabulary test at the level of α ≥ 0.05, favoring the post-one".
3. "There is a statistically significant difference among the mean scores of both the control and experimental group students on the post-administration of the interest in learning scale at the level of α ≥ 0.05, favoring the experimental group".
4. "There is a statistically significant difference among the mean scores of experimental group students on the pre/post- administration of the interest in learning scale at the level of α ≥ 0.05, favoring the post-one".

METHODS

Design
The research is a quantitative one, focusing on examining the effects of the Poe AI-based program on enhancing vocabulary learning of foundation year students at NBU. A quasi-experimental pre-post-test design of two-groups (experimental and control) was adopted. The vocabulary knowledge test was administered to the students before and after the training to measure the impact of Poe AI-based program on students' vocabulary knowledge and interest.

Participants
The study involved sixty (60) male students, divided into two groups: a control group (N=30) and an experimental group (N=30). These participants were randomly selected from the foundation year students at NBU during the second semester of the academic year 2024/2025. Students' ages ranged from 20 to 22 years old. The researcher had ethical approval from the university ethics committee to conduct the research.

Instrumentation
To achieve the objectives of the study, two instruments were developed by the researcher as follows:
1. A pre/posttest for assessing EFL vocabulary knowledge before and after the training. The aim of the test was to evaluate the participants' proficiency in certain academic vocabulary and to investigate the influence of utilizing the Poe AI-based program on enhancing vocabulary learning of foundation year EFL students. The test consisted of six sections, designed to evaluate the students' knowledge of: (1) synonyms and antonyms of the target words, (2) their meanings, (3) their grammatical forms,(4) the collocations, (5), the compounding of the target words, and (6)the derivatives of the target words (prefixes & suffixes).The test comprised six questions:(1)Select the correct answer from a, b, c, d (20 items), (2)Rearrange the provided words to form coherent sentences (10 items), (3)Identify the word that completes the sentence using the visual clues provided below (5 items), (4)Provide the appropriate word for each definition listed, utilizing the words in brackets (5 items), (5) Complete each blank with the correct word (5 items), (6) Connect the words with their corresponding meanings (5 items).
2. A pre/post interest scale for assessing interest in learning before and after the training to identify their interest level in learning vocabulary. It comprised (15) affirmative statements pertaining to various aspects of interest. It utilized a five-point Likert Scale (1=strongly disagree, 2=disagree, 3=neutral, 4=agree, 5=strongly agree). The researcher translated the scale into Arabic, and the translated version was disseminated to assist students in comprehending its items. Students were asked to mark (√) in the appropriate response column that corresponded to their views.

To assess the face validity, the test and scale were presented to a panel of jury members and experts in EFL (N=7) from various universities. The jury reached a consensus on the appropriateness of the test and the scale items for the students' proficiency level and the relevance of each item to the objectives. Thus, the test and the scale were valid.

The test comprised fifty items, with each item assigned a score of one mark. The overall score for the test was 50 marks. The scale had 15 positive statements. Each one scored on a five-point Likert Scale (1=strongly disagree, 2=disagree, 3=neutral, 4=agree, 5=strongly agree). The total score was 75 marks.

To assess reliability, the researcher conducted the test and scale with a group of (N=20) students (not including the participants) at NBU. The reliability Coefficients were measured using Cronbach's Alpha formula. It was 0.83, at the level of 0.05 which indicated that the test was reliable for administration (Appendix A). It was (0.74) at the level of 0.05 which indicated that the scale of interest was reliable for the administration(Appendix B). To determine the test duration, the time recorded by the fastest student (30 minutes) was added to the time recorded by the slowest student (50 minutes) and then divided by two. It was concluded that 40 minutes would be sufficient for the test. To estimate the time of scale, the time taken by the fastest student (20 minutes) was added to the time taken by the slowest one (30 minutes) then divided by two. It was estimated that (25 minutes) would be enough time on the scale.

Poe AI- Based Training Program

The "Mann Whitney" test for independent groups was used to assess the differences between the mean ranks of the experimental and control groups in the vocabulary test and interest scale before the treatment. The results showed that there was no significant difference between the mean ranks of the experimental and control groups in the pre-administration of the vocabulary test, as (Z) value wasn't significant at (0.05) level.

The researcher primarily relied on the topics covered in the English Book studied by foundation year students at NBU. The training sessions were focused on a coherent progression from familiar topics to unfamiliar ones, and from simpler tasks to more complex ones. The Poe AI-based program passed three phases: 1.Pre-Implementation: Prior to the program's implementation, the participants were administered the test and scale to assess their levels. An orientation session was conducted to give an overall idea about the overall procedures of the treatment, including objectives, content, duration, activities, teaching/learning methods, and evaluation techniques. The researcher did the followings:

• Ensure the internet connection and other necessary settings, such as mobile devices, aids, worksheets, vocabulary maps, etc were actually ready to be used.

• Ask the students about the vocabulary they knew about the topic and those they want to learn.

• Provide them with a brief overview of the Poe AI and instructions on how to set it up and utilize it.

• Request them to join and use the application by signing up at https://www.poe.com.

• Organize the experimental group students into teams of 5-6 members.

• Prepare a list of topics and targeted academic vocabulary for them to learn and distribute this list among the teams.

• Encourage them to discuss points of interest for each vocabulary word using a mind map, which they will complete with information regarding the form, meaning, and use.

• Designate a scribe to write down their responses, allowing each team member to utilize the vocabulary in both spoken and written forms.

2. Implementation: Following the pretesting of study participants, the researcher executed the program in the Instructional Aids Laboratory at NBU. The program lasted for 6 weeks, two sessions per week, and each session lasted approximately (60) minutes, tailored to the content and objectives of the session. The researcher followed the following steps:
 •Request the students to utilize the Poe chatbot for searching new vocabulary.
 •Assess the students' pronunciation of the new vocabulary.
 •Engage in discussions regarding the contextual meanings with the students.
 •Provide clarifications by offering definitions and examples.
 •Subsequently, the students practiced the newly introduced vocabulary aspects (meaning, synonymy, antonym, compounding, collocation, derivatives) through activities and tasks designed with the assistance of various resources such as Quizzes, Quiz game master, and Word wall.
At the end of each session, the researcher assigned participants both offline and online activities as a means of consolidation to ensure they met the session's objectives, utilizing resources such as vocabulary games, quizzes, etc.
3. Post-Implementation: After the treatment, the researcher administered tests and scales to the participants to evaluate the effects of utilizing Poe AI-based program on enhancing EFL vocabulary learning and interest. The data was collected and statistically analyzed.

Evaluation of the Poe AI-based Program
 � Formative evaluation: was carried out during the sessions to assess the students' vocabulary. Following each session, participants were provided with an offline game and an online vocabulary quiz (to be completed outside the classroom) to evaluate their level.
 ᵃ Summative evaluation: took place at the end of the experiment through the administration of tests and scales.
 •**The Researcher's Roles:**
-A stimulator: stimulated the students' interest in learning vocabulary through the Poe AI-based program.
-A monitor: guided the students' performance on the assigned tasks and activities.
 -An Assessor: provided feedback regarding the students' performance.
 •**The NBU Students' Roles:**
-Active participants: as they engaged in a variety of vocabulary learning activities and tasks, subsequently using the target vocabulary words in their own sentences either in spoken then written form.

RESULTS

The results were presented according to the hypotheses. T-test was used to verify the first hypothesis that stated a statistically significant difference among the mean scores of the control and experimental group students on the post-administration of EFL vocabulary test at the level of $\alpha \geq 0.05$, favoring the experimental group as shown in Table 2

Table 2: Comparing the results of the t-test between the control and experimental groups on the post-administration of EFL vocabulary test

Groups	N	Mean	S. D	T-value	D.F.	Sig.
Experim	30	26.2	2.42	19.7	58	0.05
Control	30	12.2	2.36			

Table (2) indicated that the average scores of the experimental group was (26.23) which was higher than those of the control group (12.28). This improvement could be attributed to the POE AI based program. Therefore, the first hypothesis was confirmed.

 T-test was used to verify the second hypothesis that stated a statistically significant difference among the mean scores of the experimental group on the pre/post- of EFL vocabulary test at the level of $\alpha \geq 0.05$, favoring the post one". The t-test for paired dependent samples was employed to evaluate the second hypothesis, as shown in Table (3)

Table 3: Comparing the results of the t-test conducted on the experimental group regarding the pre/post-administration of the vocabulary test

Test	N	Mean	St. D.	T-V.	D.F.	Sig.
Pre		7.2	2.376	32.21	29	0.05
Post	30	28.34	2.754			

Table (3) demonstrated that the scores of the experimental group in the post-test (28.3) was considerably higher than in the pre-test (7.2), attributed to the utilization of Poe AI. Thus, the second hypothesis was confirmed.

To assess the effect size of the intervention, an Eta Squared ($\eta 2$) formula was employed, as shown in Table (4).

Table 4: Value of ($\eta 2$) of Poe AI on EFL vocabulary Learning

Vocabulary	N	Mean	Std.	Sig	(η^2)	Size
	30	27.21	2.621	0.01	0.94	Large

Table (4) demonstrated that the effect size (0.94) was high.

T-test was used to verify the third hypothesis that stated a statistically significant difference among the mean scores of both the control and experimental groups on the post-administration of the interest in learning scale at the level of $\alpha \geq 0.05$, favoring the experimental group as illustrated in Table 5.

Table 5: Comparing the Results of the t-test of the control and experimental groups regarding the post-administration of the interest in learning scale

Domains	G.	N.	Mean	S.D.	T-V.	D.F.	Sig.
Attention	Exp.	30	13.9	1.15	20.694	58	0.05
	Con.	30	8.2	1.23			
Attitude	Exp.	30	14.4	1.52	22.54	58	0.05
	Con.	30	6.8	1.12			
Motivation	Exp.	30	13.8	1.05	24.81	58	0.05
	Con.	30	7.2	1.03			
Studying Habit	Exp.	30	14.7	0.90	28.66	58	0.05
	Con.	30	8.0	1.04			

Self-Concept	Exp.	30	14.6	0.98	30.76	58	0.05
	Con.	30	7.12	1.23			
Student Aptitude	Exp.	30	14.8	0.79	28.91	58	0.05
	Con.	30	7.6	0.87			
Total	Exp.	30	82.7	2.61	42	58	0.05
	Con.	30	45.3	4.30			

Table (5) indicated that a statistically significant difference was at the 0.05 level among the mean scores of the post-administration of the interest in learning scale for the experimental group and those of the control group, favoring the experimental group; as the t-value was (42), which was statistically significant at 0.05. These findings demonstrated that the experimental group highly performed due to the impact of the proposed treatment (Poe). Consequently, the third hypothesis was validated.

T-test was used to verify the fourth hypothesis stated that "There was a statistically significant difference among the mean scores of experimental group on the pre/post-administrations of the interest in learning vocabulary scale at the level of $\alpha \geq 0.05$, favoring the post-one". The T-test for dependent samples was employed to evaluate the fourth hypothesis, as illustrated in Table 6.

Table 6: Comparing the Results of the t-test conducted on the experimental group students regarding the pre/post-administrations of the interest in learning scale

Domains	Test	N	Mean	S.D.	T-V	D.F	Sig.
Attention	Pre	30	6.08	1.54	22.72	58	0.05
	Post		12.87	1.27			
Attitude	Pre	30	6.52	1.61	22.84	58	
	Post		14.48	1.04			0.05
Motivation	Pre	30	7.76	1.803	19.01	58	0.05
	Post		13.54	1.02			
Studying Habit	Pre	30	6.32	1.52	21.32	58	0.05
	Post		14.63	0.980			
Self-Concept	Pre	30	5.43	1.561	24.07	58	0.05
	Post		13.87	0.782			
Student Aptitude	Pre	30	5.76	2.87	25.35	58	0.05
	Post		13.42	2.67			
Total	Pre	30	35.61	2.93	65.34	58	0.05
	Post	30	80.70	2.58			

Table (6) indicated that the average scores of students during the pre-administration of the interest scale were (35.61), whereas the overall mean score of students following the post-

administration was (80.70). These findings demonstrated that a higher mean score was achieved in the post-administration phase. The t-value for the total interest in the learning scale was (65.34). The calculated t-value was significant at the 0.05 level. Consequently, the fourth hypothesis was confirmed.

To assess the effect size of the treatment, an Eta Squared ($\eta 2$) equation was employed, as illustrated in Table (7)

Table 7: Value of ($\eta 2$)and the levels of effect size

Domain	Test	Mean	S.D.	D.F	Sig	η^2
Attention	Pre	6.08	1.54	29	0.05	0.95
	Post	12.87	1.27			
Attitude	Pre	6.52	1.61	29	0.05	0.94
	Post	14.48	1.04			
Motivatio-n	Pre	7.76	1.803	29	0.05	0.91
	Post	13.54	1.04			
Studying - Habits	Pre	6.32	1.52	29	0.05	0.91
	Post	14.63	0.980			
Self- Concept	Pre	5.43	1.561	29	0.05	0.93
	Post	13.87	0.782			
Student- Aptitude	Pre	5.76	2.87	29	0.05	0.94
	Post	13.42	2.67			
Total	Pre	35.61	2.93	29	0.05	0.96
	Post	80.70	2.58			

Table (7) demonstrated the significant impact of the Poe AI chat bot on the overall score of the interest in learning scale, with the value of ($\eta 2$) in the total score being (0.96).

DISCUSSION

The earlier findings validated that there was a significant improvement in the EFL vocabulary acquisition of students in the experimental group following the test administration and their interest levels. This can be attributed to the following factors:

The first and second hypotheses confirmed that the training program enhanced the EFL vocabulary acquisition of the experimental group students. This outcome aligned with numerous studies: (AL-Qahtani 2015; Alhebshi & Gamlo, 2022; Marpaung, 2022; Al-Ashmawi, 2024; Khalid 2024, Sharaf, 2024) which suggested that EFL students' exposure to words and lexical phrases through genuine, active, and interactive natural conversations with the Poe chatbots could facilitate incidental learning and retention of these words in their long-term memory.

Therefore, Poe AI proved to be effective in enhancing students' EFL vocabulary, as supported by the research of Pham, et al. (2024); Shin and Lee (2024); and Zahran, (2025). The third and fourth hypotheses indicated that the training program also enhanced the interest of the experimental group students. This finding was consistent with the results of studies conducted by Belda-Medina and Alhebshi and Gamlo (2022); Marpaung (2022);

Marrahi-Gomez (2023); and Sharaf (2024), which advocated for the use of online tools (Poe) to boost interest in vocabulary learning. It captured the attention of foundation year students, encouraging them to acquire vocabulary, ask questions, and explore synonyms, antonyms, collocations, and more. Additionally, it fostered interactivity with educational content and facilitated teamwork among students, allowing them to shape their learning experiences with enthusiasm and interest. Indeed, it was a remarkable journey for them as they transitioned smoothly and interactively from one personal conversation to another, tailored to their needs and interests.

CONCLUSIONS

1. The enhancement of EFL vocabulary among foundation year students and their engagement stemmed from interactive learning materials, visualization activities, discussions, self-directed learning, and so forth.
2. The foundation program ought to cater to the varied interests and characteristics of students, providing them with ample opportunities for interaction in authentic situations or conversations.

Recommendations
1. Revamping English courses at the NBU to align with the personal needs, interests, and learning outcomes of students.
2. Integrating EFL vocabulary acquisition and activities within a cohesive course framework that incorporates technological advancements.

Suggestions for Further Research
1. Examining the influence of Poe AI on enhancing EFL creative writing abilities and self-directed learning.
2. Assessing the efficacy of a training program utilizing Poe AI in fostering EFL speaking skills and academic involvement.

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Appendix A
The Vocabulary Test

<div align="right">

50

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Name: Level: Score: /50 Time: 60 min.

Question N.	The Mark
(1)	10
(2)	10
(3)	10
(4)	10
(5)	10
(6)	10

(1)   Choose the correct answer from a, b, c, d: (10 marks)
1..........................is the best literary from that expresses emotions
 a. Poetry   b. Poet   c. Poems   d. Poetic

2. Your father's brother's daughter is your……………..
a. sister   b. niece   c. couina   d-cousin
3. The player was fined for showing abusive… ....to the referee
a. Details   b. behaviors   c. abilities   d. skills
4. Don't wory, sir. The door of the room is ………………
a. lock   b. locked   c. locks   a. a lock
5. The man gave the police the................................. of his car.
a. Solution b. conclusion   c. reason   d. purpose
6. You can't smoke here – please .... your cigarette.
a. Put up with   b. put away   c. put down   d. put out
7. I ....swimming every Saturday morning.
a. do   b. play   c. go   d. make
8. The accident was a direct................... of the driver's carelessness.
a. result   b. cause   c. reason   d. purpose
9. Parents should teach their children to behave… .... in public.
a. proper b. property c. properatory   d. properly
10. " He locked the documents in a safe". In this sentence, "locked" means……………
 a. kept   b. jailed   c. Imprisoned   c-Closed
11. My decision to leave school when I was only 16 was the worst mistake I ever……………..
a. put   b. gave   c. made   d. did
12. I think the…..............of opinion is an advantage.
a. duty   b. community   c. diversity   d. celebrity
13. People go on.................... for doing something wrong.
a. prison   b. trial   c. journey   d. holiday
14. "innocent" is to"… .... " As "earlier" is to "later".
a. early   b. kind   c. late   d. guilty
15. Parents do everything to….that their children get good education
a. emsure   b. abandon   c. confuse   d. earn
16. A device is a machine or a tool used for a ....purpose.
a. particular   b. popular   c. connected   d. online
17. He… .... his home and moved to London.
a. adopted   b. abandoned   c. hid   d. called
18. I love all fruit, but..................... strawberries.
a. specially b. especially   c. specifically   d. mostly
19. I've got all the data. Now I just need to......................... The answer.
a. make out   b. count out   c. work out   d. think out
20. It's a good idea, but it's .... that the boss will agree with you.
 a. likely   b. unlikely   c. improbably   d. unprobably

2. Mixed sentences - Rearrange the words to make complete sentences.
1. channel / DNB / news / best / is / the
2. applied / school / law / admission / for / she's / to
3. marketing / got / she's / a / in / diploma
4. performance / minute / will / ten / a / be / there / interval / through / the / halfway
5. Gallery / the / art / Britain / in / National / the / biggest / has / collection
6. were / of / children / lots /audience / in /sitting / the / there
7. the / received / bad / good / and / film / reviews / some / ones / some 18. scenes / painted / Lowry / street
8. homework / essay / pollution / write / want / I / you / to / on / an / for
9. we / CAE / we / studying / because / hard / want / are / pass / to

10.   best-do-high-get-do-marks-to-your

3. Gap fill sentences – CHRISTMAS Find the word to complete the sentence using the picture clues below
1. We are going to decorate our Christmas ……………… 2. Look at the beautiful …………….. in the garden 3. I can't wait for you to open your…...................4. I get very excited on ………………….. 5. Look out of the window, there is lots of…………………..

4. Write the suitable word for each of the following definition using the words in brackets: (experience- hire-bullying-environment-conversationist)
1. When some people use their strength to frighten weaker people(..............)
2. 2. The natural world in which peple, animals and plants live.(
3. A person who takes an active part in the protection of the environment
4. Something that happens to you that affects how you feel
5. To pat to use something for a short time

5. Fill in each space with the right word
(touch-communications-progress-areas-networks)
KSA has achieved great…………………in different fields especiaallly, the field of……………………………. Modern mobile telephone……………..have covered most cities and villages and even remote ………………………….. also computers and the internet have enabled us to get in…   with other people all over the world

6. Match the words with their meaning:
1. Culture   a) hardly
2. Boast off   b) difficult situation
3. Dilemma   c)The traditions of a group of people
4. persuade   d) show off
5. Seldom   e)make someone to believe

Appendix B

An Interest Scale

Domain	Item No.	Item When Learning English Vocabulary	1	2	3	4	5
Motivation	1	I have the desire to be active in learning.					
	2	I have the need–to-acquire new vocabulary.					

	3	I have the need to be enhanced.					
Attention	4	I have the ability to respond discretely to specific visual, auditory stimuli.					
	5	I have mental flexibility to shift my focus of attention from one task to another one.					
Attitude	6	I have the ability to imitate what I see or hear.					
	7	I may form an attitude towards something without a reason or clear thinking.					
Studying Habit	8	I have an acquired way of acting which is fairly automatic.					
	9	I have some things done often and almost without thinking.					
Self-Concept	10	My view of myself affects the behavior of others towards me.					
	11	Treating by the others against me affects my thoughts about various things.					
	12	My view of myself affects my behavior towards others					
Student Aptitude	13	I have the ability to perform an activity.					
	14	I have the ability to acquire some knowledge, skills and response by training					
	15	I have the ability to achieve success in the future					