HLRC | HIGHER LEARNING RESEARCH COMMUNICATIONS

Higher Learning Research Communications
2025, Volume 15, Issue 1, Pages 1–11. DOI: 10.18870/hlrc.v15i1.1622

Original Research

WALDEN UNIVERSITY

The Impact of Using Poe ChatGPT-Based TPACK Model on English as a Foreign Language Teachers' Performance and Their Students' Vocabulary Learning

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Abstract

Objectives: The study aims to investigate the efficacy of the Poe ChatGPT-based TPACK model on EFL teachers' performance and their students' vocabulary learning.

Methods: I designed four instruments to gather the research data: a survey of EFL teaching skills, a teaching knowledge test, an observation checklist for assessing teacher performance, and a vocabulary knowledge test.

Results: The statistical analysis of the research data proved that EFL teachers developed their teaching performance. The statistical analysis of preparatory students' vocabulary tests proved no differences between the experimental and control groups.

Conclusions: Utilizing the Poe ChatGPT-based Technological Pedagogical and Content Knowledge (TPACK) model positively impacted teaching skills. The impact of Poe ChatGPT on developing students' vocabulary learning was rejected.

Implications: There is a need for future studies to examine the effect of Poe ChatGPT on secondary and university students' vocabulary knowledge and teachers' inquiry, critical thinking, and digital literacy skills.

Keywords: *Poe ChatGPT, students vocabulary learning, teachers' performance, TPACK model.*

Date Submitted: November 1, 2024 | Date Accepted: January 16, 2025 | Date Published: February 25, 2025

Recommended Citation

Zahran, F. A. (2025). The impact of using Poe ChatGPT-Based TPACK Model on English as a foreign language teachers' performance and their students' vocabulary learning. *Higher Learning Research Communications, 15*(1), 1–11. https://doi.org/10.18870/hlrc.v15i1.1622

Introduction

Using online tools in teaching is not an innovative idea. Though English as a foreign language (EFL) teachers use several technological tools, ChatGPT, an artificial intelligence platform, is still limited (Kohnke, 2022). Despite teachers' worries that using ChatGPT in language teaching can negatively impact teacher–student

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interaction, the advancement and advantages of ChatGPT in language learning cannot be ignored. Hence, these chatbots should be continually examined in the English language teaching/learning process (Al-khresheh et al., 2022). ChatGPT can correct wrong answers, reject unsuitable inquiries, and engage students in communication. Thus, it is an educational tool (Aktay, 2022). Bhattacharya et al. (2023) stated that using ChatGPT in the field of language learning can enhance the efficacy of the teaching/learning process. Employing ChatGPT in the teaching process is not a replacement for teachers. It is an educational tool that can be used as a source for material, quizzes, correcting mistakes, giving feedback, and developing communication. It also can edit and revise students' writings (Bishop, 2023).

ChatGPT transformed the production method of texts in several fields (Lee, 2024). Therefore, there are several inquiries in the field of EFL teaching, including whether this transformation has a positive impact on language learning, helps teachers and students, enhances language skills, affects the enhancement of vocabulary learning, and should be included in teacher training programs. All of these questions can be answered by investigating the impact of ChatGPT on the teaching–learning process. Hence, this research aims to examine the Poe ChatGPT-based TPACK model on EFL teachers' performance and their students' vocabulary learning.

Literature review

Effective teachers do not only deliver information but also improve students' skills, evaluate, give feedback, and design educational activities (Zahran, 2023). Cooper and Ryan (2010) declared that achieving the intended learning outcome is the main goal of an effective teacher. According to Altun and Akyildiz (2017), integrating technology into the teaching process to generate and present educational content and evaluate students' performance requires providing teachers with technology use, lesson planning, and assessment knowledge.

Vocabulary Learning Challenges and Instructional Principles

The vocabulary teaching/learning process is a main challenge for EFL students and teachers. EFL students have difficulties related to the correct use of new vocabulary. EFL teachers face challenges in using effective strategies that support and improve the mastery of English language vocabulary. In larger EFL classrooms, factors such as time constraints, lack of feedback, and introverted students hinder engaging students in vocabulary learning practices (Zahran, 2022). According to Harris et al. (2011) and Zahran (2022), students' problems in reading comprehension, writing, listening, and speaking come from the inability to comprehend and use vocabulary. It is probable for EFL students to be skilled at the grammatical structure of the English language and yet be incapable of communicating without vocabulary knowledge. Neuman (2011) stated that vocabulary should be at the head of language teaching instruction. Vocabulary is the base for communicating fluently in spoken and written forms. According to Harris et al. (2011) and Neuman (2011), the instructional principles of vocabulary learning include (a) providing students with texts for promoting prior knowledge and supporting the comprehension of new vocabulary, (b) using new technological tools, (c) encouraging interaction and discussions, (d) encouraging students to learn new vocabulary depending on their self-teaching strategies, and (e) teaching new vocabulary through meaningful content. Effective vocabulary learning instruction impacts the development of language skills. Improving students' vocabulary across the syllabi is not the right way. Teachers need to develop strategies for effective vocabulary teaching practices.

TPACK Model

TPACK is a model for integrating technology to achieve effective teaching (Altun & Akyildiz, 2017). Koehler et al. (2013) stated that using TPACK is required when technology is combined with teaching methods for presenting educational content. Cox and Graham (2009) explained that the TPACK model refers to seven kinds of knowledge that teachers should recognize: (a) content knowledge, which indicates the knowledges of

the taught subject that teachers should have, such as theories, concepts, and information, (b) pedagogical knowledge, which refers to the required teaching knowledge and includes designing, elaborating, and implementing the teaching approaches and strategies, (c) technology knowledge, which represents the ability to use the technological tools in the teaching process, (d) pedagogical content knowledge, which refers to a teacher's ability to choose the appropriate approach to teach specific content, (e) technological content knowledge that refers to a teacher's ability to select the most proper technological tool to present a particular content, (f) technological pedagogical knowledge, which refers to the integration of technology and teaching knowledge that enable teachers to reinforce the teaching process, and (g) technological pedagogical knowledge, which refers to the integration of content, teaching knowledge and technology in order to be able to improve effective teaching methods based on technological tools in accordance with students' needs and course content. Hewitt (2008) indicated that the TPACK model provides a direction for integrating technology into the teaching/learning processes. It provides teachers with the needed knowledge for designing lesson plans, activities, teaching methods, managing class, planning an assessment, dealing with individual differences, and using technology to generate a new representation of the educational material.

Poe ChatGPT

Improving evaluation methods, lesson planning, and activities organizing requires improving teachers' performance to effectively deal with technological advances (Kim et al., 2019). Integrating chatbots into teacher training programs is a prerequisite for successful integration in the language teaching/learning processes (Al-khresheh et al., 2022). ChatGPT is a developed artificial intelligence chatbot that has several abilities, such as imitating human conversation, checking grammar mistakes, translating, producing articles and novels, answering questions, and engaging students in real conversations (Adiguzel et al., 2023; Tlili et al., 2023). Poe ChatGPT is an AI chatbot that creates texts, stories, and vocabulary quizzes. Poe ChatGPT is a free educational platform and application used to produce different levels of vocabulary quizzes based on teacher demands concerning students' levels and the required vocabulary. Obtaining well-produced texts and quizzes depends on the comprehensibility level of the inserted instructions. For example, without specifying students' level and required vocabulary, the produced text might be unsuitable for foreign language students (OpenAI, 2023a). Poe ChatGPT generates texts and quizzes that are the nearest answer to the given instructions. Sometimes, it provides unclear answers when the inserted feedback does not contain adequate details (OpenAI, 2023b). To obtain a satisfactory result, teachers should avoid asking general questions and inserting inadequate instructions. They should specify students' needs, ages, proficiency levels, desired vocabulary, and the type of text or quiz needed. Teachers should review the generated texts and quizzes before introducing them to students to verify their precision, consistency, and clarity.

Advantages in Language Teaching

Using ChatGPT in the teaching/learning process has several advantages. The ability to form different types of questions in addition to answering questions and giving feedback makes ChatGPT a helpful tool in the foreign language teaching processes (Kohnke, 2022). Koraishi (2023) revealed that ChatGPT is a significant tool for developing EFL material and assessment. ChatGPT can help enhance vocabulary learning as it provides clarification of words with examples. Aue and Thadphoothon (2023) indicated that ChatGPT is a feasible tool for designing activities, checking grammar mistakes, and enhancing vocabulary learning. Ali et al. (2023) confirmed that ChatGPT increases confidence and independence and motivates students to improve their reading and writing skills. ChatGPT is beneficial for both teachers and students as well. It can help teachers make up different types of questions for any topic. It also can help students clarify ideas, summarize texts, check mistakes, and get feedback. ChatGPT can be used to obtain and update the teaching material and exams. It can reduce the burden on stressed-out teachers (Tlili et al., 2023). As ChatGPT cannot answer ambiguous questions, it develops inquiry skills. It also can help students with grammar and structure mistakes.

Challenges in Language Teaching

The ability to answer questions and compose topics raised doubts concerning utilizing ChatGPT in teaching. Students can easily use ChatGPT for assignments and writing essays, and these are among the worries of using ChatGPT in education (Tlili et al., 2023). Aue and Thadphoothon (2023) added that the inability of ChatGPT to express emotional responses and to respond to informal language are among the limitations of using ChatGPT in the teaching process. Adiguzel et al. (2023) and the United Nations Educational, Scientific, and Cultural Organization (UNESCO; 2023) reported the academic worries concerning using ChatGPT in learning: (a) threatening research integrity, (b) ignoring the development of students' soft skills, (c) threat to data privacy, (d) generating inaccurate information, (e) intellectual property rights, (f) using ChatGPT in doing assignments and research leading to creating student dependency. The changes in the teaching/learning process created by using new technological tools impose the need to evaluate their potential and challenges. Hence, the current research aims to offer empirical proof of using Poe ChatGPT in an EFL setting.

Questions and Hypotheses of the Research

The main research question examines the impact of Poe ChatGPT-based TPACK model on EFL preparatory teachers' performance and their students' vocabulary learning. To answer this question, the author tested the following hypotheses:

1. There is a statistically significant difference at the ≤ 0.05 level between the mean ranks of the EFL preparatory teachers' pre-and post-test scores in the teaching knowledge skills in favor of the post-test.
2. There is a statistically significant difference at the ≤ 0.05 level between the mean ranks of the EFL preparatory teachers on the pre-post administrations of the teaching skills performance observation checklist.
3. There is a statistically significant difference at the ≤ 0.05 level between the mean score of the preparatory students' experimental and control groups on the vocabulary achievement test post-administration, favoring the experimental one.

Method

Design

A one-group pretest-posttest design was used with EFL teachers. The teaching knowledge test and the observation checklist were administered to the teachers before and after the training program to measure the impact of Poe ChatGPT-based TPACK model training on teachers' teaching skills. The quasi-experimental design—an experimental and a control group—was used with preparatory students. The vocabulary knowledge test was administered to the students before and after the training to measure the impact of Poe ChatGPT on students' vocabulary knowledge.

Participants

The participants were a group of EFL Preparatory teachers (six males and nine females) at a school in Egypt who voluntarily participated (n = 15) and were trained to investigate the impact of the Poe ChatGPT-based TPACK model training on teachers' teaching skills. Random selection was not possible as the pool of teachers was not large enough for random selection. Teachers' ages were between 28 and 45 years. Additionally, a group of first-year preparatory students at the same school was assigned randomly to an experimental group (n = 31) taught by one teacher and a control group (n = 31) taught by one teacher to investigate the impact of Poe ChatGPT on students' vocabulary learning. Students' ages ranged from 13 to 14 years old. The author had ethical approval from the school ethics committee to conduct the research.

Instruments

I designed a teaching skills checklist, a teaching knowledge test, an observation checklist for assessing the EFL teaching performance skills of the teachers during their teaching in the classroom, and a vocabulary knowledge test to evaluate preparatory students' vocabulary knowledge levels. The teaching skills checklist was designed to identify the teaching skills suitable for EFL preparatory teachers and the research aim. A checklist including seven main skills (lesson planning, implementation, assessment, the use of the TPACK model, the use of Poe ChatGPT, management skills, and involving learners) was prepared and rated on a 5-point Likert Scale ranging from Very Important to Not Important. The jury members' responses were statistically calculated. The skills that were agreed upon by the jury included (lesson planning, implementation, assessment, the use of the TPACK model, and the use of Poe ChatGPT). The teaching knowledge test was designed to measure teachers' level of knowledge related to the five teaching sub-skills (lesson planning, implementation, assessment, the use of the TPACK model, and the use of Poe ChatGPT). The test consisted of five sections, including 25 true or false items. The participants were asked to correct the false items. The following are examples of the included items: (e.g., TPACK is a model for engaging students in problem-solving, the verb "distinguish" belongs to the application category of Bloom's Taxonomy, and Poe ChatGPT is used for constructing listening quizzes). The observation checklist consisted of five dimensions that assess teachers' competency regarding the same five teaching sub-skills mentioned above. The following are examples of the included items in the checklist, rated on a 3-point Likert scale ranging from Excellent, Good, and Satisfactory: the teacher plans for the various types of questions based on the lesson objectives, the teacher adapts questions to be appropriate for pupils' mental and linguistic levels, and the teacher assesses students' performance at the beginning of the lesson to know their achievement level. The vocabulary test consisted of four types of questions that included filling in the blanks with the correct word, writing the words corresponding to each of the given definitions, replacing some words from the sentences with the given words to deliver the same meaning, and using the given words in meaningful sentences.

The validity of the instruments was proven through jury validation. The instruments were sent to five researchers to solicit their views in tables, with choices such as appropriate/not appropriate/should be modified. The teaching knowledge test, the observation checklist, and the vocabulary knowledge test were then piloted with four academics to examine the clarity of the questions. The expert reviews and pilot application established that the revised tests and the observation checklist were fully understood. Cronbach's Alpha was used to measure the internal consistency for the teacher knowledge test and vocabulary learning test. The alpha coefficient value for the teacher knowledge test was 0.682, and the alpha coefficient value of the vocabulary knowledge test was 0.731, which indicates that the two tests were reliable.

Training Program Description, Duration, and Content

The teacher training program was designed based on the TPACK model, Poe ChatGPT, the teaching skills checklist, and related literature. The training program objectives included developing teachers' ability to use the TPACK model, developing the ability to use Poe ChatGPT, and developing lesson planning, implementation, and assessment skills. The training began with an introductory session to explain the training program's aim, objectives, content, time, activities, teaching/learning methods, and evaluation techniques. Then, teacher training included using the TPACK model, integrating technology in lessons, using technology for assessing student performance, and using Poe ChatGPT with students for updating educational material and creating vocabulary quizzes. Teachers were trained to write accurate instructions to Poe ChatGPT to obtain suitable materials and quizzes for EFL preparatory students. Training teachers continued for 2 months. I met the participants twice a week face-to-face at the school and applied formative and summative evaluations. The formative evaluation was conducted through the observation checklist to assess teachers' progress in the knowledge base of the selected skills. The results of the pre-post administrations of the knowledge test and the teacher performance observation checklist were used to conduct the summative evaluation by estimating the

effect size of the Poe ChatGPT-based TPACK model training program on developing EFL teachers' specified teaching skills. After training teachers using the Poe ChatGPT-based TPACK model, I investigated the impact of Poe ChatGPT on students' vocabulary learning. The quasi-experimental design—an experimental and a control group—was used with the preparatory students. One teacher taught the experimental group, and one teacher taught the control group. Both teachers received the same training. They trained using the Poe ChatGPT-based TPACK model. Both teachers used the TPACK model with their students. The only difference between the preparatory students' experimental and control groups was the experimental group teacher's use of the Poe ChatGPT application to produce vocabulary quizzes and texts. Using the Poe ChatGPT requires training in writing accurate instructions, revising, and editing to ensure that the obtained vocabulary quizzes and activities are suitable for EFL preparatory students. EFL preparatory students' experimental group cannot use the Poe application themselves as they cannot write precise instructions or revise or edit the obtained quizzes and texts. EFL preparatory students' experimental group was taught using the vocabulary quizzes and activities generated by their teacher using the Poe ChatGPT application.

Regarding the preparatory students, I designed a treatment based on Poe ChatGPT and related literature. The objective of the training was to investigate the impact of using Poe ChatGPT on developing preparatory students' vocabulary learning. The training continued for 3 months. The training began with a preliminary session to clarify the overall procedures of the treatment, such as aim, objectives, content, time, activities, teaching/learning methods, and evaluation techniques. The experimental group teacher used the Poe ChatGPT application to produce vocabulary activities, texts, and quizzes for the experimental group students. All the training sessions took place inside the same school. The control group received regular training. It was not based on the Poe ChatGPT application. The control group teacher did not use Poe ChatGPT to generate activities, texts, and quizzes for the control group. The teacher manually created quizzes and activities and used the coursebook texts. The formative and summative evaluations were applied to assess students' levels of vocabulary knowledge. The formative evaluation was conducted through self-evaluation, group evaluation, and quizzes. The comparison of the pre-post vocabulary knowledge test of the control group that received the regular training and the experimental group that received training-based Poe ChatGPT was used to conduct the summative evaluation by measuring the effect size of Poe ChatGPT on enhancing students' vocabulary knowledge.

Results and Discussion

The results are reported according to the research hypotheses. Wilcoxon test was used to verify the first hypothesis that states a statistically significant difference at the ≤ 0.05 level between the mean ranks of the EFL preparatory teachers' pre-and post-test scores in the teaching knowledge skills in favor of the post-test. Table 1 shows the z-values and the differences between the pre-post teaching knowledge test of the EFL teachers' before and after the training.

Table 1: *Comparing the Performance of the EFL Preparatory Teachers on the Pre-Post Teaching Knowledge Test.*

Skills	Ranks	*N*	Mean Rank	Sum of Ranks	*z* value	Sig.
TPACK Model	Positive ranks	15	8.5	154	3.42	0.05
	Ties	0	-	-		
	Negative ranks	0	0	0		
The Use of Poe ChatGPT	Positive ranks	15	8.5	154	3.50	
	Ties	0	-	-		
	Negative ranks	0	0	0		
Lesson planning	Positive ranks	15	8.5	154	3.25	
	Ties	0	-	0		
	Negative ranks	0	0	0		
Implementation	Positive ranks	15	8.5	154	3.37	
	Ties	0	-	-		
	Negative ranks	0	0	0		
Assessment skills	Positive Ranks	15	8.5	154	3.51	
	Ties	0	-	-		
	Negative ranks	0	0	0		
Total	Positive ranks	15	8.5	154	3.53	
	Ties	0	-	-		
	Negative ranks	0	0	0		

As shown in Table 1, the *z*-values of the teaching knowledge test are significant. Using the Poe ChatGPT-based TPACK model helped EFL teachers develop their teaching skills. This result is consistent with Altun and Akyildiz (2017), who confirmed that the TPACK model aims to provide teachers with effective teaching guidelines. This result is in accord with Al-khresheh et al. (2022) and Tlili et al. (2023), who indicated the necessity of integrating ChatGPT in teacher training programs so they are skilled at using Poe ChatGPT. The EFL preparatory teachers were trained to use Poe ChatGPT to create teaching material and quizzes. For the EFL preparatory teachers, Poe ChatGPT was an educational tool that helped them update the teaching material and create quizzes and activities.

Wilcoxon test was used, as shown in Table 2, to verify the second hypothesis that states a statistically significant difference at the ≤ 0.05 level between the mean ranks of the EFL preparatory teachers on the pre-post administrations of the teaching skills performance observation checklist.

Table 2: *Comparing the Performance of the Preparatory Teachers on the Pre-Post Administrations of the Teacher Performance Observation Checklist.*

Skills	Ranks	*N*	Mean Rank	Sum of Ranks	*z* value	Sig.
TPACK model	Positive ranks	15	8.5	154	3.23	0.05
	Ties	0	-	-		
	Negative ranks	0	0	0		
The Use of Poe ChatGPT	Positive ranks	15	8.5	154	3.37	
	Ties	0	-	-		
	Negative ranks	0	0	0		
Lesson planning	Positive ranks	15	8.5	154	3.52	
	Ties	0	-	0		
	Negative ranks	0	0	0		
Implementation	Positive ranks	15	8.5	154	3.41	
	Ties	0	-	-		
	Negative ranks	0	0	0		

Assessment skills	Positive ranks	15	8.5	154	3.49
	Ties	0	-	-	
	Negative ranks	0	0	0	
Total	Positive ranks	15	8.5	154	3.67
	Ties	0	-	-	
	Negative ranks	0	0	0	

Table 2 shows that the total *z* value of the observation checklist was significant. Observing the actual teaching performance of the EFL preparatory teachers inside classes, I found that the training program enhanced the use of the TPACK model, and Poe ChatGPT impacted the ability to specify operative objectives in light of students' needs, integrate technology in the lesson plan, and evaluate students' performance. This result is consistent with Kim et al. (2019), who indicated that effective use of educational activities, evaluation techniques, and technology in teaching requires professional training. The observation checklist results proved that using the Poe ChatGPT-based TPACK model impacted the improvement of knowledge and performance of Poe ChatGPT, the TPACK model, lesson planning, implementation, and assessment skills.

The *t*-test was used to verify the third hypothesis that there is a statistically significant difference at the ≤ 0.05 level between the mean score of the preparatory students' experimental group and the control group on the post-administration vocabulary achievement test favoring the experimental one. The pre-administration of the vocabulary knowledge test aimed to examine the homogeneity of the two groups before the treatment. Table 3 presents the *t*-test results of both groups.

Table **3**: *Comparing the Pre-Administration of the Vocabulary Knowledge Test*.

	Groups	test	Mean	*SD*	*t* value	Sig.
Vocabulary test	Experimental	Pre-test	30.05	1.71	0.31	.134 Not Sig.
	Control		31.89	1.68		

Table 3 shows that the experimental and control groups were almost equivalent in their vocabulary knowledge test before starting the training.

The *t*-test was used to examine the differences between the experimental and control groups in the post-vocabulary knowledge test, as presented in Table 4.

Table 4: *Comparing the Vocabulary Knowledge Level of the Control and Experimental Groups on the Post-Test.*

	Groups	test	Mean	*SD*	*t* value	Sig.
Vocabulary test	Experimental	Post-test	72.11	1.66	0.43	.141 Not Sig.
	Control		70.97	1.73		

Table 4 proved no differences between the experimental and control groups' post-test mean scores. Consequently, hypothesis three, which suggests differences between experimental and control groups favoring the experimental group students in vocabulary knowledge due to using Poe ChatGPT vocabulary quizzes and texts, is rejected. The experimental group received vocabulary knowledge training using Poe ChatGPT vocabulary quizzes and texts, while the control group's regular training did not include the integration of Poe ChatGPT. Yet, both preparatory students' control and experimental groups enhanced their vocabulary knowledge. An informal interview with EFL preparatory teachers who received training using the Poe ChatGPT-based TPACK model was planned to investigate the reasons for the test scores equivalence of both preparatory students' experimental and control groups. EFL preparatory teachers confirmed that Poe ChatGPT is a useful

educational tool for creating vocabulary materials, activities, and quizzes. During their training, teachers used Poe ChatGPT in creating texts and stories, including the required vocabulary. Teachers also used Poe ChatGPT in vocabulary quizzes to evaluate their students' performance. Teachers were trained to write precise instructions to Poe ChatGPT to get suitable vocabulary quizzes and texts for their students' level. Poe ChatGPT was used for the experimental group. The experimental group teacher used Poe ChatGPT to generate texts, activities, and quizzes. The experimental group teacher reported that receiving suitable vocabulary quizzes and texts for EFL first-year preparatory students required writing precise instructions to the Poe application and required revision and sometimes editing. It was also reported that the Poe application vocabulary quizzes and activities saved the teacher time. Poe ChatGPT vocabulary quizzes and texts were not used with the control group. The control group teacher used the textbook texts and manual quizzes. The control group teacher reported that making manual vocabulary quizzes and activities consumes time. As reported by the control group teacher, teaching the control group without using Poe ChatGPT made the control group teacher spend a lot of time creating vocabulary activities and quizzes that had the same impact on students since both groups enhanced their levels of vocabulary knowledge. As reported by all 15 teachers, Poe ChatGPT was beneficial for them as it saved their time, helped them create several quizzes, and helped them produce many texts and stories that included the required vocabulary. Additionally, as reported by all 15 teachers, they prefer using the Poe ChatGPT vocabulary quizzes and activities than consuming time in making manual quizzes and activities.

Conclusion

The Poe ChatGPT and TPACK model proved to be advantageous to teachers. Poe ChatGPT helped teachers create new texts, stories, and quizzes. As reported by the 15 teachers, Poe ChatGPT saved teachers time since creating new activities and quizzes consumes teachers' time. Accordingly, it lessens the responsibilities of teachers. As reported by the 15 teachers, using Poe ChatGPT for creating activities and quizzes enhanced teachers' inquiry skills, as obtaining accurate and suitable vocabulary materials and quizzes requires giving precise instructions. It can be confirmed that training teachers using the Poe ChatGPT-based TPACK model improved teaching skills. The TPACK model developed teachers' assessment skills, lesson planning and implementation, and teaching knowledge. It provides teachers with the essential knowledge for using technology in teaching. TPACK model and Poe ChatGPT helped teachers enhance their teaching methods and skills.

Regarding the impact of Poe ChatGPT on students' vocabulary learning, there were no differences in the post-vocabulary test between the experimental and the control group's mean scores. Using Poe ChatGPT texts, stories, activities, and quizzes had the same impact as using textbook activities and quizzes made by teachers. Since the preparatory students' experimental group was not trained on how to use Poe ChatGPT themselves. Their teacher received training on how to use the Poe application. The preparatory experimental group students used the vocabulary quizzes and texts made by their teacher using the Poe application. Consequently, there is a need for future studies to investigate the effect of Poe ChatGPT on advanced-level students. There is also a need for studies to investigate the impact of Poe ChatGPT on secondary and university students' vocabulary knowledge and teachers' inquiry skills, critical thinking, and digital literacy skills.

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