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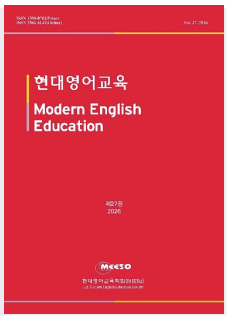

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A Systematic Literature Review on Instructors' Roles in 2023-2024 Empirical Research on ChatGPT-based English Language Learning

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챗GPT, 생성형 인공지능, 영어교육, 교수자 역할, 체계적 문헌연구

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Abstract

The current study seeks to illuminate the roles of instructors in prior empirical research conducted in the domestic English education field. It systematically categorizes empirical studies on ChatGPT-based English instructions according to the main roles of instructors and suggests their frequency. In addition to analyzing these roles, further analysis of actual ChatGPT users, school levels, and outcome variables was necessary because these roles are closely tied to specific contexts. The study reviewed 76 previous studies that were conducted in South Korea between 2023 and 2024. These include 66 journal articles, nine master's theses and one doctoral dissertation. The analysis identified five instructors' roles: facilitators, technical supporters, resources of feedback, instructional organizers, and language instructors. Facilitators were the most common role found in studies of ChatGPT-based English instructions. Technical supporters, though relatively new, ranked as the second most frequent role. Resources of feedback focused on developing productive skills such as speaking and writing. Instructional organizers were primarily school teachers rather than university faculty. Language instructors emphasized grammar even when teaching other written language skills. These findings are expected to give comprehensive educational implications and insights into instructors' roles when utilizing ChatGPT for English language learning in the Korean EFL context.

INTRODUCTION

In the last few years, artificial intelligence (AI) has been rapidly developing. It is evident that English education needs to adapt to the era of generative AI (Cheon, 2023). The use of generative AI tools is promising in education with giving chances to innovatively change various aspects of teaching and learning (Giannakos et al., 2024). Especially, ChatGPT (Generative Pre-trained Transformer), which is one of the generative AI tools, can generate relevant responses with understanding their users' input and provide human-like conversational output (Y. Hwang, 2023). In this regard, this generative AI tool can create learning materials and activities. Educators could utilize the advanced technology as a learning tool. Researchers have tried to explore its possibility (Choe, 2023b; Godwin-Jones, 2023; Shin, Jung & Lee, 2023) and to examine its effectiveness (Baek, 2024; Bok & Cho, 2023; Cha & Im, 2023; Cheon, 2023; Cho & Choe, 2024; Huh et al., 2024; R. Kim, 2023, 2024; Park & Kim, 2024; Yi, 2024; Yu, 2024).

Instructors' roles are still important to enable learners to achieve goals even when learning activities using AI can improve learners' engagement (Shin, Lee & Noh, 2023). Instructors play various roles in class. General roles in language learning were suggested, including facilitators, managers, resources, and controllers (Brown, 2007; Harmer, 2007). Their specific roles align with certain contexts of teaching.

Instructors' roles are considered to be changed because it is inevitable that ChatGPT can change the traditional methods and objectives of English education innovatively (Halaweh, 2023; H. Kim, 2021; H. Kim & S. Lee, 2023; R. Kim, 2023; H. Y. Park, 2023). For example, language instructors could focus on lower achievers while the generative AI tool aids students (H. Y. Park, 2023). Some researchers implied that the role of a facilitator, which helps autonomous learning, is more important than before the advent of ChatGPT (H. Y. Park, 2023; Shin, Lee & Noh, 2023). In addition to facilitators, instructors need to adapt instructions when using AI in language learning. Resources of feedback could also play crucial roles when ChatGPT is adopted in learning. Human instructors have to check errors and filter inappropriate contents (H. Y. Park, 2023). However, it is still confusing whether English instructors can delegate their traditional role to generative AI tools to provide linguistic knowledge. Thus, it is time to start discussing the roles of instructors in order to prepare for the era of generative AI. It is also important to decide how instructors act in class for effective English learning when using generative AI. However, it is difficult to comprehensively identify instructors' roles in English classes using generative AI.

Related studies have been actively conducted since 2023 because ChatGPT was launched in November 2022. It is because related research can suggest the potential and the empirical evidence through analyzing characteristics of the relatively new tools. With their potential, individual studies suggested or implied what the main roles of instructors were in the classroom and how they used generative AI for their teaching. Most of the individual empirical studies on the use of ChatGPT briefly include instructors' roles in their methodology section.

With the start of empirical research that applies ChatGPT to the English educational context, literature reviews are needed to synthesize related previous studies and guide future research. General research trends related to generative AI and ChatGPT have been suggested (Baek et al., 2024; Jang & So, 2023; Jin & Yoo, 2024; H. S. Kim et al., 2024; J. Lee, 2025). However, existing literature reviews have hardly analyzed the roles of instructors systematically when they adopted ChatGPT in their English classes. If instructors' roles in previous empirical studies are analyzed, the contexts and effectiveness of ChatGPT-based English language learning can be comprehensively suggested for future research. This analysis can offer a practical guideline. Thus, the current study tries to examine instructors' roles in related empirical studies on ChatGPT-based English instructions with analyzing actual ChatGPT users, school levels, and outcome variables.

LITERATURE REVIEW

Research Trends of ChatGPT in English Language Classes

With the advent of ChatGPT, which was released by OpenAI in 2022, some researchers tried to suggest both possible good points of ChatGPT and concerns about its drawbacks without empirical evidence. Regarding its merits, beyond simple machine translation, ChatGPT can provide information and help users easily understand what they want to know, by learning from vast amounts of data (Choe, 2023a; Godwin-Jones, 2023; Shin, Jung & Lee, 2023). Considering its drawbacks, both instructors and learners could be overly dependent on the new technology, which could not enhance their analytical ability or English proficiency (Baidoo-Anu & Ansah, 2023; Choe, 2023b). However, ChatGPT can provide false and nonexistent information (Choe, 2023b; Halaweh, 2023). It is necessary to consider its potential and limitations for using ChatGPT in education (Jang & So, 2023).

Recently, researchers of English education have tried to examine the effectiveness or potential of ChatGPT as a language learning tool through empirical research. Language variables are the main part of related research. Four skills were taught in ChatGPT-based instructions including listening (Cho & Choe, 2024), reading (Cha & Im 2023; R. Kim, 2023, 2024), speaking (Baek, 2024; Cheon, 2023; Huh et al., 2024) and writing (Bok & Cho, 2023; Park & Kim, 2024; Yi, 2024; Yu, 2024). Especially, ChatGPT has the potential of increasing language learners' productive skills in that the tool can generate both oral and written texts. For English writing, ChatGPT assisted learners with giving feedback (N. Jeong, 2024; Leam, 2024; Shim & Kim, 2024). For English speaking, ChatGPT could be a conversational partner (M. Cho, 2024; Noh, 2024). Such instructions also focused on vocabulary (Jo & Kim, 2023) or grammar (Cheon, 2024).

With language variables, affective variables are the other main part of classroom-based instructions using ChatGPT. Research on ChatGPT-based English instructions dealt with learners' perceptions (Bok & Cho, 2023; Choe, 2023b; Choi & Choe, 2024), motivation (Kim & Min, 2024; Lee & Min, 2024), engagement (S. J. Hwang, 2024; Shin, Lee & Noh, 2023), and self-confidence (S. J. Hwang, 2024; M. Kim et al., 2024). In addition, some studies focused on metacognition such as strategies (Dillon, 2024; Y. Jeong, 2024) and self-regulated learning (Cha et al., 2023).

Empirical studies using ChatGPT in language learning have been accumulated. At this point, research trends on ChatGPT need to be analyzed for future research. Literature reviews, including research trends, systematic literature reviews, and meta-analyses, can identify the current research trend, summarize the general effect, and synthesize the implications from related studies. In terms of the education with generative AI, literature reviews were conducted in various previous studies (Baek et al., 2024; Jang & So, 2023; Jin & Yoo, 2024; J. Lee, 2025).

Specifically, research trends and topics were analyzed for the use of ChatGPT in general education (Jang & So, 2023). Their study analyzed 72 existing studies, including both empirical studies, such as surveys and interventions, and non-empirical studies, such as expository studies. The existing research which was conducted at the beginning of using ChatGPT implied that medical and educational fields utilized ChatGPT.

A systematic literature review was conducted for the integration of generative AI to self-regulated learning with analyzing 24 studies (Jin & Yoo, 2024). This study analyzed not only existing studies of English education but also those of other subjects. Their study suggested that the number of studies on generative AI in self-regulated learning increased over time. Their study concluded that ChatGPT could be utilized for university students' self-regulated learning since university students were interested in using generative AI for developing their autonomy.

A meta-analysis on the educational effects of generative AI was conducted (Baek et al., 2024). Through the analysis of 24 studies, the studies with pretest-posttest designs showed a medium to large effect size, whereas the studies with the comparison between control and treatment groups showed a medium effect size. Text-based generative AI tools such as ChatGPT were less effective than other generative AIs. These two previous studies (Baek et al., 2024; Jin & Yoo, 2024) did not focus on English learning but included studies in the general education field.

Research trends of ChatGPT-based English and Korean language learning have been conducted (H. S. Kim et al., 2024). This previous study focused on categorizing school levels, numbers of students, methods, and language skills. The effects of ChatGPT have been reviewed in K. Im's (2024) study. The researcher reviewed some existing studies to analyze how to utilize ChatGPT based on language variables and school levels. This previous study introduced the methods that the selected individual studies adopted and the researcher used possible methods personally. The researcher listed related individual studies on four skills such as reading, writing, speaking and listening.

An existing systematic literature review on generative AI in English education explored the types of generative AI tools and their functions (J. Lee, 2025). The researcher analyzed 50 selected studies in the Korean EFL (English as a Foreign Language) context. The existing study revealed that 28 studies used ChatGPT among 50 studies. However, the study just summarized the functions of generative AI, but did not report the exact number of different functions of generative AI in EFL classes. This existing study did not examine their contexts of learning such as school levels and outcome variables.

Among related existing literature reviews, individual studies on ChatGPT-based English instructions have been rarely analyzed systematically. Furthermore, the roles of instructors have been hardly analyzed in the ChatGPT-based English instructions of existing classroom-based studies. Only J. Lee's study (2025) systematically reviewed research on English education with generative AI. This previous systematic literature review did not analyze the contexts of instructions in the collected studies. Only K. Im's study (2024) reported language variables and school levels of the existing studies on English learning with ChatGPT. However, further systematic literature reviews are needed. Researchers hardly focused on analyzing the roles of instructors in related empirical studies. Individual exploratory studies suggested the potential roles of instructors in the near future. Individual empirical studies can provide insights into the specific aspects of instructors' roles that ChatGPT can assist with. It is necessary to synthesize their roles in the actual contexts of English learning with ChatGPT because their roles should be different based on whether ChatGPT is adopted for English classes and how the tool is used in an actual context of learning. However, the roles of instructors in previous empirical research have hardly been explored

in a comprehensive way. This study systematically reviews previous empirical research on ChatGPT-based English language learning in order to examine instructors' roles with actual ChatGPT users, school levels, and outcome variables in previous empirical research.

Instructors' Roles in EFL Classroom

Instructors, including school teachers and university faculty, play various roles in accordance with their specific contexts of teaching. In class, teachers' effective roles can elicit learners' potentials (Adhikari & Pandey, 2025). Appropriate roles are essential in the teaching context. Some perceived general roles of teachers have already been suggested in language learning, such as controllers, managers, resources, and facilitators. A traditional role is a controller who leads the whole class in front of a classroom (Brown, 2007; Harmer, 2007). A manager plans lessons or courses (Brown, 2007). Organizing learning activities is one of the teachers' important roles (Harmer, 2007). A resource gives advice or counsel based on their learners' questions when they want to know information related to the target language (Brown, 2007; Harmer, 2007). They could be resources of expertise or advice (Hedge, 2000). A facilitator is the opposite of a transmitter of knowledge because they try to improve learner autonomy (Harmer, 2007). They can help learners learn language easily with their guidance (Brown, 2007).

Among their various roles, instructors need to focus on a particular role in the specific context of teaching. Their roles depend on the culture and their interaction styles with learners (Brown, 2007). Instructors adopt specific roles based on the learning goals that they seek to facilitate (Harmer, 2007). The context needs to be considered when technology is integrated into language learning (McDonough et al., 2013). Especially with the advent of generative AI, educational institutions, instructors and learners cannot help going through significant changes (Giannakos et al., 2024). The role of teachers is a central issue in the process of using generative AI in language learning (Barnes & Tour, 2026).

Some individual studies imply that instructors need to play a role as a facilitator. Facilitators or coaches are considered as appropriate instructors' roles in the era of using AI in EFL classes (Shin, Lee & Noh, 2023). Individual studies associate English classes with improving learner autonomy, which is central to the role of facilitators. Based on the instructors' AI guidelines, learners can improve learner autonomy (Cha & Im, 2023). The effectiveness of conversational AI chatbots such as ChatGPT on learning depends on individual learners' autonomous engagement (H. Y. Park, 2023). Learners can be active by asking questions and searching for answers autonomously in the English classroom with ChatGPT (S. M. Cha, 2023).

Like one of the general teachers' roles as a manager or an organizer of learning activities, instructors would need to adapt learning activities and curricula when they adopt the relatively new tools. Instructors can plan learning activities and develop particular tasks using AI tools to improve learner autonomy (Choi & Choe, 2024). ChatGPT could be suitable for adapting teaching materials in accordance with target learners' competence (S. M. Cha, 2023). In order to utilize ChatGPT in English classes systematically, adapting learning materials and activities has become more important than before (H. Y. Park, 2023).

Instructors as resources of feedback could be one of the key roles when using AI in language classes. Instructors need to give individual students or groups proper feedback (Shin, Lee & Noh, 2023). Learners suggested resources of feedback as a proper role of instructors with their experience that they revised paragraphs with generative AI like ChatGPT (Bok & Cho, 2023). In this context, instructors as resources of feedback are essential with focusing on nuanced, culturally sensitive and individualized feedback. Human instructors have to check errors and filter inappropriate contents (H. Y. Park, 2023).

In addition to those roles based on the general classification, language instructors have to focus on how to use the tools properly for learning in the current era. This is because there are still insufficient guidelines to use ChatGPT in English classes (H. Y. Park, 2023). English teachers need to introduce functions (Han, 2024) and develop appropriate ChatGPT prompts (Yu, 2024).

The Present Study

After the major shift in the educational environment caused by generative AI, it is necessary to identify which role instructors need to play in English classes. The current study systematically reviews previous empirical research to examine the main roles of English instructors. In order to do so, the current study analyzes previous classroom-based studies that were published in the Korean EFL context between 2023 and 2024 by using a systematic literature review as a research method. This study mainly focuses on instructors' main roles (RQ1). Thus, the classification and frequency of instructors' roles are presented.

The roles of instructors are closely tied to particular contexts because particular roles correspond to specific contexts of teaching. Instructors consider specific situations and circumstances when they develop their own classroom practices (Nunan,

2003). In order to integrate technology into language learning, it is important to consider the specific contexts (McDonough et al., 2013). Classroom environments highly affect their roles (Brown, 2007). In this regard, further analysis is necessary in addition to identifying the main roles of instructors in English classes using ChatGPT. The current study also tries to analyze the contexts of teaching. More specifically, this study explores whether instructors were actual ChatGPT users in the pedagogical environment or instructors just let their learners be ChatGPT users (RQ2). The actual ChatGPT users are important to analyze another aspect of their roles. Actual ChatGPT users could be one of their roles in class. The current literature review identifies which roles appear in particular school levels within the existing empirical studies (RQ3). The current study also examines outcome variables (RQ4) of the existing empirical studies in order to identify which variables were focused on when ChatGPT was applied to English instructions. The four research questions will guide the current study.

1) What are the main roles of instructors in the previous studies of ChatGPT-based English instructions in the Korean EFL context?

2) Do instructors' roles vary across actual ChatGPT users in the previous studies of English instructions?

3) Do instructors' roles vary across different school levels in the previous empirical studies on ChatGPT-based English instructions?

4) Do instructors' roles vary across different outcome variables, such as language, affective, and metacognitive variables, with the use of ChatGPT?

METHOD

Data Collection and Inclusion Criteria

A systematic literature review is a method that can give the overall trend of related existing studies. This study selects a systematic literature review as a research method. This systematic literature review could offer implications for research and practice regarding proper instructors' roles for future instructions using ChatGPT. In addition to these roles, this present study examines the actual ChatGPT users, school levels, and outcome variables. The current study selected the type of databases and publications with the criteria of inclusion and exclusion by taking into account the PRISMA (Preferred Reporting Items for Systematic reviews and Meta-Analyses) guidelines (Page et al., 2021).

RISS (Research Information Sharing Service) is the main source of data collection for the current study because the database offers research data that are accessible in other databases such as the National Assembly Digital Library, Kyobo Scholar, KISS (Korean-studies Information Service System), and DBpia. The primary search keywords were "English" and "ChatGPT." Only English keywords were used because studies written in Korean should also include English keywords. Those English keywords could cover related studies in the database. The setting was limited to the Korean EFL context. The studies published from 2023 to 2024 were selected because ChatGPT was launched in November 2022. As a result, 240 studies, including 187 journal articles, 45 master's theses, and eight doctoral dissertations, were found.

There were three steps of the selection. First of all, four overlapped studies and eight conference proceedings were excluded through inspecting titles. Secondly, 38 studies that were not related to English education were excluded by inspecting abstracts. Third, studies not related to the four research questions and studies with overlapping data were excluded by reviewing full texts based on inclusion and exclusion criteria. Table 1 suggests inclusion and exclusion criteria.

TABLE 1
Inclusion and Exclusion Criteria

Inclusion criteria	Exclusion criteria
Empirical quantitative and qualitative studies	Theoretical frameworks, literature reviews, lesson plans and meta-analyses
Using ChatGPT as a learning tool for English	Using ChatGPT only as an assessment tool or an AI translator
Surveys or interviews with instructions	Surveys or interviews without any instructions
A journal article with overlapping data	A master's thesis or a doctoral dissertation with overlapping data

The current study aims to analyze the empirical studies that utilized ChatGPT as a tool for English instructions, including quantitative, qualitative, and mixed-method research. Thus, case studies were included. This study excluded the studies that dealt with ChatGPT-based English learning only for literature reviews, meta-analyses, lesson plans or theoretical frameworks. This study excluded existing studies that used ChatGPT as an assessment tool and an AI translator without any educational purpose because this study tries to investigate previous empirical studies that adopted ChatGPT for English learning and teaching. Surveys or interviews could be included or excluded according to their characteristics. This paper includes existing studies that analyze learners' perceptions of ChatGPT after they used it for English learning in classes. However, this paper excluded existing studies that simply explored learners' general perceptions of ChatGPT without any intervention. Data overlap should be eliminated. If a master's thesis or a doctoral dissertation overlapped with a journal article, then the journal article was selected. In this process, 114 studies were excluded. As a result, 76 previous studies were selected. Table 2 shows the basic information of the selected studies, such as publication years and forms.

As shown in Table 2, this study includes 16 studies published in 2023 and 60 studies published in 2024. Related empirical research was conducted much more frequently in 2024 than in 2023. It means that the interest in ChatGPT has increased every year in the English education field under the EFL context. It is because the generative AI-friendly environment has been built with the introduction of ChatGPT (Jang & So, 2023; Jin & Yoo, 2024).

Considering publication forms, this study selects 66 published journal articles, nine master's theses, and one doctoral dissertation. Journal articles (n = 66) turned out to be published most frequently among the three types of publication. One reason is that journal articles were selected if a master's thesis or a doctoral dissertation has overlapped with a journal article. All master's theses and a doctoral dissertation were published in 2024.

TABLE 2
Basic Information of Selected Studies

Basic information		Number of selected studies (%)
Publication year	2023	16 (21.05%)
	2024	60 (78.95%)
Publication form	Journal article	66 (86.84%)
	Master's thesis	9 (11.84%)
	Doctoral dissertation	1 (1.32%)

Data Coding and Analysis

After collecting primary studies through inclusion and exclusion criteria, the full texts of the individual studies were reviewed again for data coding through qualitative analysis. Through the analysis, the collected studies were categorized based on basic information and the four research questions. The framework of analysis is based on the emphasis on the description of school teachers or university faculty in the individual studies. Basic information includes the publication years and forms of the selected studies. The first research question deals with the types of instructors' main roles that appear in the existing empirical studies. The second research question focuses on actual ChatGPT users. The third research question examines school levels. The fourth research question inspects outcome variables, including the language, affective, and metacognitive variables, with actual ChatGPT use. Thus, the data of the selected 76 empirical studies were coded using Excel. Table 3 shows the data coding variables for the current systematic literature review.

Instructors' main roles (RQ1) in the ChatGPT-based English instructions were identified based on how school teachers or university faculty were described in the methodology section of the selected studies. Considering the general roles of instructors, school teachers or university faculty in particular studies mainly focused on learner autonomy, ChatGPT functions, learning activities, feedback, or language. The analysis identified five instructors' roles: facilitators, technical supporters, instructional organizers, resources of feedback, and language instructors. In some studies, instructors played many roles at the same time. In this case, the current study selected one main role that the individual study particularly emphasized. Thus, this current literature review classified instructors into the five roles as follows. To be classified as a facilitator, instructors need to give learners chances to study English by themselves using ChatGPT. Instructors as facilitators were assumed based on the description that learners studied English by themselves using ChatGPT if research hardly contained detailed information. To be a technical supporter, instructors mainly explain how to use ChatGPT and make an effort to give detailed ChatGPT prompts. To be considered as instructional organizers, studies just describe the effort to

adapt teaching materials and activities to integrate ChatGPT into their classes. As for resources of feedback, research particularly emphasizes the importance of instructors' feedback on learners' tasks. However, instructors' feedback on learners' ChatGPT prompts is considered as technical supporters' tasks. To be categorized into language instructors, research mainly deals with instructions of linguistic knowledge with letting learners use ChatGPT as an alternative learning tool.

TABLE 3
Data Coding Variables for the Current Systematic Literature Review

Category		Variables
Basic information	Publication year	1) 2023 and 2) 2024
	Publication form	1) Journal articles, 2) Master's theses, and 3) Doctoral dissertations
Instructors' roles (RQ1)	Main roles	1) Facilitators, 2) Technical supporters, 3) Instructional organizers, 4) Resources of feedback, and 5) Language instructors
ChatGPT users (RQ2)	Actual users in instructions	1) Instructors, 2) Learners, and 3) Both
School levels (RQ3)	Research subjects	1) Elementary, 2) Secondary, 3) University, and 4) Adult
Outcome variables (RQ4)	Language variables	1) Listening, 2) Reading, 3) Speaking, 4) Writing, 5) Vocabulary, 6) Grammar & Syntax, 7) Communicative skills, 8) AI literacy, 9) Recall of key sentences, and 10) Four skills
	Affective variables	1) Perception, Response & Attitude, 2) Satisfaction, 3) Motivation, 4) Self-confidence & Self-efficacy, 5) Interest, 6) Engagement, 7) Anxiety, 8) Grit, and 9) Other affective elements
	Metacognitive variables	1) Self-directed learning, 2) Strategy, 3) Self-regulated learning, and 4) Critical thinking
	Performance	1) Aspects of actual ChatGPT use

Actual ChatGPT users (RQ2) were coded in accordance with instructors, learners, or both based on the description of the instructions in the collected studies. School levels (RQ3) were coded based on elementary schools, secondary education, such as middle schools and high schools, universities, and other adult groups, such as teachers and soldiers. Middle and high schools are classified into the same category because the two studies (Jang, 2024; C. E. Lee, 2024) aimed at both middle and high school students at the same time. Pre-service teachers who were university students were classified as university students.

Considering outcome variables (RQ4), the selected studies focus on four categories: language, affective and metacognitive variables, and performance. Specifically, language variables include listening, reading, speaking, writing, vocabulary, grammar (and syntax), communicative skills, AI literacy, recall of key sentences, and four skills. Affective variables in the selected studies consist of learners' perceptions (responses and attitudes) of ChatGPT, satisfaction, motivation, self-confidence (and self-efficacy), interest, engagement, anxiety, grit, and other unclassified affective elements. Metacognitive variables were examined by inspecting their self-directed learning, strategies, self-regulated learning, and critical thinking. Although some selected studies considered self-directed learning as one of the affective variables, the current study classified it as one of the metacognitive variables based on its characteristics. In addition to language, affective and metacognitive variables, learner's performance was explored by reporting aspects of actual ChatGPT use. Detailed information on the coding sheet is suggested in the Appendix.

FINDINGS AND DISCUSSION

Instructors' Main Roles in the Previous Studies of ChatGPT-based English Learning

This section explains the first research question by exploring instructors' main roles in the 76 selected empirical studies that used ChatGPT for English instructions. Both the results of the frequency and qualitative analysis are suggested. Five instructors' main roles appeared in the selected empirical studies. Overall, instructors in the existing studies concentrated on

learner autonomy, ChatGPT use, adaptive learning materials or activities, and language. Other roles did not appear in ChatGPT-based English instructions of the selected studies. Table 4 presents the five types of instructors' main roles in existing empirical research with their frequency and percentage.

TABLE 4
Instructors' Main Roles in Empirical Research

Instructors' main roles	Number of selected studies (%)
Facilitators	34 (44.7%)
Technical supporters	15 (19.7%)
Resources of feedback	12 (15.8%)
Instructional organizers	10 (13.2%)
Language instructors	5 (6.6%)
Total	76 (100%)

Notably, facilitators were the most common role when ChatGPT was utilized in English language classes (n = 34, 44.7%). The current study considers instructors whose classes mainly focused on giving learners tasks to do by themselves with ChatGPT as facilitators because of their characteristics. Facilitators give learners more ownership of learning with decreasing instructors' intervention (Brown, 2007). The result is aligned with the suggestion of appropriate instructors' role in the generative AI era (Shin, Lee & Noh, 2023) in that instructors could give students more ownership when using ChatGPT because ChatGPT could aid students' own learning.

Technical supporters who put much more effort into enabling learners to utilize ChatGPT as a tool for English learning in a better way take up 19.7%. In the empirical studies, English instructors provide guidance on how to use ChatGPT. This role is clearly distinct from English instructors' general roles that were already suggested before ChatGPT was adopted in language learning. Specifically, there are three different kinds of technical supporters in the selected studies. At the beginning of their classes, they introduced ChatGPT as a learning tool (Shin, 2023; K. W. Kim, 2024). In class, they demonstrated how to manipulate ChatGPT by explaining its functions (Dillon, 2024; N. Jeong, 2024; Lee & Choi, 2024; Mun, 2024). To keep learning activities moving forward, they offered various ChatGPT prompts (Ahn & Min, 2024; Byun, 2024; Cho & Choe, 2024; Yu, 2024). There would be two possible reasons why this role is the second most. Instructors had to introduce and explain the relatively new tool in that the period from 2023 to 2024 was the relatively early stage of adopting ChatGPT in English learning. In order to integrate ChatGPT into language classes, the usage of ChatGPT could be another main part of these kinds of instructions.

Resources of feedback take up 15.8%. As the term implies, resources of feedback mainly focus on giving learners feedback. Mostly, instructors can correct learners' language output. Resources of feedback are different from facilitators in writing and speaking classes in that facilitators let learners receive feedback from ChatGPT in most writing and speaking classes. In addition to feedback on learners' language use, a different type of feedback from resources were found in the collected studies. In the two studies (Jeon & Lee, 2023; Shim & Kim, 2024), instructors gave errors of feedback and contents from ChatGPT.

Instructional organizers account for 13.2%. They adapt their classes with modifying teaching materials (J. Y. Kim, 2024; Kim & Min, 2024; Kim & Park, 2023), activities (M. J. Kim, 2024), or class designs (Cho, 2024; Jang, 2024; Y. Jeong, 2024; M. Kim et al., 2024; Lee & Min, 2024; Park & Park, 2024) based on learners' characteristics. Instructors can use ChatGPT to adapt their classes easier, or they need to change their instructional design to apply ChatGPT to the standard curriculum, which was not supposed to use ChatGPT.

Language instructors, who focus on teaching linguistic knowledge about English, account for 6.6%. This kind of traditional role, like knowledge transmitters, is getting less important in English classes after ChatGPT appeared. Moreover, language instructors did not dominantly lead the whole class using ChatGPT in the selected studies. They made an effort to explain linguistic knowledge first and then allowed to use ChatGPT for studying. This is why the current study does not use terms like knowledge transmitters or controllers that played traditional roles in the past.

Actual ChatGPT Users in Previous Empirical Research

This section addresses the second research question by identifying actual ChatGPT users in the selected empirical studies.

When integrating ChatGPT into English classes, instructors could play the role of actual ChatGPT users. This section can identify whether instructors are active users of ChatGPT for their classes. The results of the frequency and qualitative analysis are suggested. Actual ChatGPT users could be instructors, learners, or both of them. Table 5 demonstrates the actual ChatGPT users in the selected studies.

TABLE 5
Actual ChatGPT Users According to Instructors' Roles

Contexts		Facilitators (n = 34)	Technical supporters (n = 15)	Resources of feedback (n = 12)	Instructional organizers (n = 10)	Language instructors (n = 5)	Total (n = 76)
Actual ChatGPT users	Instructors	0	0	2 (2.63%)	5 (6.58%)	0	7 (9.21%)
	Learners	31 (40.79%)	8 (10.53%)	10 (13.16%)	2 (2.63%)	5 (6.58%)	56 (73.68%)
	Both	3 (3.95%)	7 (9.21%)	0	3 (3.95%)	0	13 (17.11%)

Learners turn out to be actual ChatGPT users in most cases (n = 56, 73.68%). Instructors of only seven studies actually used ChatGPT for their classes. It means that most instructors let learners utilize ChatGPT for their learning in English classes. In the 13 studies, both instructors and learners used the tool for their classes.

Almost all facilitators made their learners use ChatGPT by themselves, whereas they were not the only users of ChatGPT in their teaching. This is because their roles are supposed to offer learners chances to study on their own. In only three studies (Cheon, 2023, 2024; J. H. Park, 2024), both the facilitator and learners used ChatGPT. Instructors gave an orientation to enable learners to do learning activities using ChatGPT.

Technical supporters were not the only users of ChatGPT in their classes, but let learners become actual ChatGPT users (n = 8, 10.53%). In this case (Ahn & Min, 2024; Byun, 2024; Cho & Choe, 2024; H. Kim, 2024; K. W. Kim, 2024; Shin, 2023; Shin, Lee & Noh, 2023; Yu, 2024), instructors as technical supporters provided instructions for proper prompts. In the seven studies (Baek, 2024; Dillon, 2024; Han, 2024; Huh et al, 2024; N. Jeong, 2024; Lee & Choi, 2024; Mun, 2024), both technical supporters and learners were actual ChatGPT users. In these studies, instructors demonstrated the use of ChatGPT in class.

Instructors as resources of feedback gave two different types of feedback in the selected studies based on the actual ChatGPT users. The ten resources that made their learners actual ChatGPT users gave feedback on learners' output. The two resources who were the actual ChatGPT users in the two studies (Jeon & Lee, 2023; Shim & Kim, 2024) informed of errors in ChatGPT-generated feedback. Resources of feedback could play a different role according to whether they are actual ChatGPT users or not.

Instructors who are the actual ChatGPT users are mostly instructional organizers (n = 5). Among the five studies, four studies aimed at elementary school students. However, instructional organizers in the two studies (Cho, 2024; J. Y. Kim, 2024) made their students the actual ChatGPT users and taught middle school students speaking. The two instructional organizers offered proper materials according to learners' levels. The other instructional organizers who used ChatGPT with enabling learners to utilize it taught high school students (Y. Jeong, 2024; Park & Park, 2024), and both middle and high school students (Jang, 2024). In the three existing studies, instructors mainly designed their classes.

Like facilitators, language instructors were not actual ChatGPT users in class. Their reasons are totally different. For facilitators, their role is to enable learners to utilize ChatGPT well for their English learning. In contrast, in the selected five studies that language instructors appeared, they actually provided learners linguistic knowledge and then made them use ChatGPT.

School Levels of the Previous Empirical Research

This section addresses the third research question by identifying school levels in the selected empirical studies. In this section, both the results of the frequency and qualitative analysis are suggested. School levels are divided into elementary schools, secondary schools, such as middle and high schools, and universities, with the adult group, which does not consist of actual students. Instead of students, the adult group includes teachers and soldiers. Table 6 shows school levels according to instructors' roles in the selected studies.

TABLE 6
School Levels According to Instructors' Roles

Contexts		Facilitators (n = 34)	Technical supporters (n = 15)	Resources of feedback (n = 12)	Instructional organizers (n = 10)	Language instructors (n = 5)	Total (n = 76)
School levels	Elementary	2 (2.63%)	1 (1.32%)	0	4 (5.26%)	0	7 (9.21%)
	Secondary	4 (5.26%)	1 (1.32%)	2 (2.63%)	6 (7.89%)	1 (1.32%)	14 (18.42%)
	Universities	26 (34.21%)	12 (15.79%)	9 (11.84%)	0	4 (5.26%)	51 (67.11%)
	Adult	2 (2.63%)	1 (1.32%)	1 (1.32%)	0	0	4 (5.26%)

Like the previous study on research trends of ChatGPT-based English and Korean instructions (H. S. Kim et al., 2024), the current study shows that ChatGPT was predominantly utilized for university students (n = 51, 67.11%). This result corresponds to other related previous studies on research trends (Jang & So, 2023; H. S. Kim et al., 2024) although the two studies on general education collected relatively shorter periods than the current study. The policy of OpenAI, which developed ChatGPT, could affect the result. OpenAI officially put a comment on the policy that a person who is older than 18 years old can use the tool, or a person who is between 13 and 18 years old needs parental consent (OpenAI, 2023).

Considering learners' age, instructors enabled university students and adults to utilize ChatGPT more easily for their English learning as facilitators or technical supporters. In line with the overall trend of school levels in the selected studies, facilitators taught university students (n = 26, 34.21%). However, it is possible that elementary or secondary school students do tasks by using ChatGPT with school teachers' guidance. The two studies that aimed at elementary students (S. J. Hwang, 2024; Jo & Kim, 2023) included tasks that learners did by themselves with the AI tool. Among the four studies for secondary schools such as middle and high schools, learners in the two studies used ChatGPT for their reading (R. Kim, 2023) and writing tasks (C. E. Lee, 2024). In one study for middle school students (Choi & Choe, 2024) and one for high school students (Hwangbo & Bae, 2024), learners made a presentation and an audiobook respectively on their own using AI tools.

Resources of feedback mostly taught university students, similar to facilitators and overall instructors. This kind of instructors' role did not teach elementary school students because resources of feedback were needed in English writing and speaking classes. The regular curriculum of English in elementary schools does not include writing. Speaking classes in elementary schools include simple practices. Thus, resources of feedback are not an essential role in elementary schools. Notably, instructional organizers play the key role for elementary and secondary school students. Elementary and secondary school teachers need to consider the national curriculum and adapt regular classes. However, instructional organizers did not mainly focus on adapting teaching materials and activities for university students and adults. In terms of language instructors, among the five studies, four studies (Hong & Shin, 2024; Jeonga Kim, 2024; Leam, 2024; M. S. Park, 2024) aimed at university students and one study aimed at high school students (R. Kim, 2024).

Outcome Variables of ChatGPT-based English Instructions

This section deals with the fourth research question by figuring out the outcome variables in ChatGPT-based English instructions in the selected studies. Outcome variables are divided into four categories including language, affective, metacognitive variables with performance. Existing classroom-based research focused on ten language variables such as listening, reading, speaking, writing, vocabulary, grammar, communicative skills, AI literacy, recall of key sentences, and four skills. As for affective variables, previous empirical studies examined learners' perceptions, satisfaction, motivation, self-confidence, interest, engagement, anxiety, grit, and other unclassified affective variables. In terms of metacognitive variables, the selected studies tried to look at learners' self-directed learning, strategies, self-regulated learning, and critical thinking. Table 7 describes the outcome variables of ChatGPT-based English instructions according to instructors' roles. Unlike the previous literature review conducted by Im (2024), the current study found other language variables, such as vocabulary, grammar, AI literacy, and recall of key sentences, in the previous studies using ChatGPT.

Among language variables, ChatGPT was utilized mainly for writing (k = 44, 51.16%), whereas ChatGPT was rarely adopted in ChatGPT-based English instructions for listening (k = 2, 2.33%). Some language variables of the existing studies tend to have a certain tendency related to instructors' main roles. Notably, resources of feedback only focused on productive skills such as speaking (k = 2) and writing (k = 10) because instructors can give learners feedback of those two language variables much easily. Listening was taught only by technical supporters. Language instructors which are the traditional roles taught reading, writing and grammar, but they mostly emphasized grammar even when teaching other written language

skills. Those three language variables are closely related to written language. In addition, vocabulary (k = 2) was taught by a facilitator and an instructional organizer, but all of the two studies (Jo & Kim, 2023; M. Kim et al., 2024) aimed at elementary school students.

TABLE 7
Outcome Variables of ChatGPT-based English Instructions According to Instructors' Roles

Outcome variables		Facilitators	Technical supporters	Resources of feedback	Instructional organizers	Language instructors	Total
Language variables (k = 86)	Listening	0	2 (2.33%)	0	0	0	2 (2.33%)
	Reading	7 (8.14%)	1 (1.16%)	0	3 (3.49%)	1 (1.16%)	12 (13.95%)
	Speaking	7 (8.14%)	4 (4.65%)	2 (2.33%)	3 (3.49%)	0	16 (18.60%)
	Writing	21 (24.42%)	7 (8.14%)	10 (11.63%)	3 (3.49%)	3 (3.49%)	44 (51.16%)
	Vocabulary	1 (1.16%)	0	0	1 (1.16%)	0	2 (2.33%)
	Grammar & Syntax	1 (1.16%)	1 (1.16%)	0	0	2 (2.33%)	4 (4.65%)
	Communicative skills	0	0	0	1 (1.16%)	0	1 (1.16%)
	AI literacy	2 (2.33%)	0	0	0	0	2 (2.33%)
	Recall of key sentences	0	0	0	1 (1.16%)	0	1 (1.16%)
	Four skills	2 (2.33%)	0	0	0	0	2 (2.33%)
	Total	41 (47.67%)	15 (17.44%)	12 (13.95%)	12 (13.95%)	6 (6.98%)	86 (100%)
Affective variables (k = 100)	Perception, Response & Attitude	20 (20%)	9 (9%)	9 (9%)	6 (6%)	2 (2%)	46 (46%)
	Satisfaction	5 (5%)	3 (3%)	2 (2%)	0	1 (1%)	11 (11%)
	Motivation	3 (3%)	2 (2%)	3 (3%)	2 (2%)	0	10 (10%)
	Self-confidence & Self-efficacy	5 (5%)	0	2 (2%)	3 (3%)	0	10 (10%)
	Interest	4 (4%)	0	1 (1%)	4 (4%)	0	9 (9%)
	Engagement	3 (3%)	3 (3%)	0	0	0	6 (6%)
	Anxiety	1 (1%)	0	1 (1%)	1 (1%)	0	3 (3%)
	Grit	2 (2%)	1 (1%)	0	0	0	3 (3%)
	Other affective elements	1 (1%)	0	0	1 (1%)	0	2 (2%)
	Total	44 (44%)	18 (18%)	18 (18%)	17 (17%)	3 (3%)	100 (100%)
Metacognitive variables (k = 13)	Self-directed learning	3 (23.08%)	0	0	2 (15.38%)	0	5 (38.46%)
	Strategy	2 (15.38%)	1 (7.69%)	0	1 (7.69%)	1 (7.69%)	5 (38.46%)
	Self-regulated learning	1 (7.69%)	0	0	0	0	1 (7.69%)
	Critical thinking	2 (15.38%)	0	0	0	0	2 (15.38%)
	Total	8 (61.54%)	1 (7.69%)	0	3 (23.08%)	1 (7.69%)	13 (100%)
Performance (k = 9)	Aspects of actual ChatGPT use	4 (44.44%)	2 (22.22%)	2 (22.22%)	0	1 (11.11%)	9 (100%)

*Note. This table reports coding unit (k).

Among affective variables, the most selected studies focused on learners' perceptions of ChatGPT (k = 46, 46%). Learners' perceptions, responses, or attitudes of ChatGPT are the most important because the period from 2023 to 2024 is the very early stage to integrate ChatGPT into English classes. ChatGPT was relatively new to both learners and instructors. Learners' perceptions of such a new tool could navigate future English learning and research. In this regard, learners' satisfaction (k = 11, 11%) is also crucial to decide whether ChatGPT is suitable for language learning. Like language variables, some affective variables of the existing studies could have a tendency related to instructors' roles. Learners' engagement and grit were examined when instructors acted like facilitators and technical supporters. Those two affective variables explore how active learners are in learning. It could be related to the characteristics of those two roles that guide learners to be active for their own learning. The related studies that language instructors appeared only examined learners' perceptions and satisfaction.

Empirical studies examined metacognitive variables and performance much less than language and affective variables. Specifically, resources of feedback did not focus on metacognitive variables because it is easy to offer feedback of learners' productive skills. Instructors need more time to identify learners' metacognition to give feedback in that productive skills are more concrete than metacognition. Instructional organizers did not explore the aspects of actual ChatGPT use. It means that the role focuses on the contents and structures of their classes rather than considering learners' performance in using ChatGPT.

CONCLUSION

The current systematic literature review aimed to explore instructors' roles in previous empirical research conducted in the domestic English education field. In order to do that, the study systematically investigated existing studies on the use of ChatGPT in the EFL context. Data were collected from RISS with the keywords "English" and "ChatGPT." After collecting data, related studies were selected based on inclusion and exclusion criteria. The current study reviewed 76 previous studies that were conducted in South Korea between 2023 and 2024. These included 66 published journal articles, nine unpublished master's theses, and one unpublished doctoral dissertation.

With the four research questions, the current study mainly analyzed instructors' main roles (RQ1). For further analysis on the roles of instructors, the current study identified the actual ChatGPT users (RQ2), school levels (RQ3), and outcome variables (RQ4) in ChatGPT-based English instructions. Analysis of the full texts of the selected studies identified five instructors' main roles: facilitators, technical supporters, resources of feedback, instructional organizers, and language instructors. Instructors did not focus on other roles at an early stage of using ChatGPT for their English classes. Among the five roles, facilitators were the most common role found in studies of ChatGPT-based English instructions as facilitators were proposed as a proper role to adopt ChatGPT in English learning. In addition, technical supporters, which were not suggested as general roles of language instructors, ranked as the second most frequent role even in English language classes. There would be two possible reasons. Instructors needed to guide how to use such a new tool in that the period from 2023 to 2024 is the very early stage of adopting ChatGPT in English classes. Guiding the use of ChatGPT could be the main part in ChatGPT-based English learning. Related future research could figure out the clear reason.

In terms of the actual ChatGPT users, 73.68% of users were learners. It means that instructors mostly helped learners to utilize ChatGPT as a learning tool. Students of facilitators and language instructors were actual ChatGPT users in class. They had different reasons. Facilitators aimed to enable learners to use ChatGPT for their own learning, whereas language instructors let learners use the tool for the purpose of getting grammatical knowledge. Instructors as actual ChatGPT users were two resources of feedback and five instructional organizers.

Regarding school levels, the ChatGPT-based English instructions mostly aimed at university students. This is because the ethical issue of ChatGPT. This result corresponded to the previous literature reviews (Jang & So, 2023; H. S. Kim et al., 2024). However, instructional organizers were primarily school teachers rather than university faculty in that they aimed at elementary, middle, and high school students. This could be because school teachers need to consider the national curriculum and adapt regular classes.

Concerning outcome variables in the previous empirical studies, the effects of writing were most frequently explored among language variables. Resources of feedback focused on developing productive skills such as speaking and writing because it would be easy to give feedback on learners' language output. Language instructors made learners concentrate on grammar even if they taught other written language skills like reading and writing. They just explored learners' perceptions and satisfaction among affective variables. The empirical studies explored metacognition and performance much less than language and affective variables.

These findings are expected to give comprehensive educational implications and insights into instructors' main roles when utilizing ChatGPT for English language learning in the Korean EFL context. The limitation of this study is that instructors' main roles and actual ChatGPT users were analyzed only as they were reported or described in the selected previous studies. The real context could be different from what the collected studies described. The other limitation of this study is that the number of the selected studies is relatively small because research on ChatGPT-based English instructions is still an ongoing process. ChatGPT started to be widely used in research in the English education field in 2023. Follow-up studies need to be updated since research articles on the use of ChatGPT in English education are published every month. The effectiveness of ChatGPT could be more clearly analyzed with other research methods like meta-analyses.

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APPENDIX

The Coding Sheets of Primary Studies

	Study (year)	Publication	Instructors' roles	School level	Users	Outcome
1	Ann & Min (2024)	Journal	Technical supporter	University	Learners	Listening, Perception
2	Baek (2024)	Journal	Technical supporter	University	Both	Speaking
3	Bok & Cho (2023)	Journal	Resource of feedback	University	Learners	Writing, Perception, Use
4	Byun (2024)	Journal	Technical supporter	University	Learners	Grammar
5	Carrier, Heywood, & Hwang (2024)	Journal	Facilitator	University	Learners	Writing, Perception, Motivation, Self-confidence
6	Cha & Im (2023)	Journal	Facilitator	University	Learners	Reading, Satisfaction
7	Cha, Im, & Lee (2023)	Journal	Facilitator	University	Learners	Self-regulated learning, Grit
8	Cheon (2023)	Journal	Facilitator	University	Both	Speaking, Attitude, Satisfaction
9	Choen (2024)	Journal	Facilitator	University	Both	Grammar, Satisfaction, Engagement, Self-directed learning
10	Cho (2024)	Master's	Instructional organizers	Middle school	Learners	Speaking, Affective variables
11	Cho & Choe (2024)	Journal	Technical supporter	University	Learners	Speaking, Listening, Satisfaction
12	Choe (2023a)	Journal	Facilitator	University	Learners	Writing, Use, Affective variables
13	Choe (2024)	Journal	Facilitator	University	Learners	Writing
14	Choe (2023b)	Journal	Facilitator	University	Learners	Writing, Perception
15	Choi & Choe (2024)	Journal	Facilitator	Middle school	Learners	Writing, Speaking (Reading aloud), AI literacy, Use, Perception
16	Dillon (2024)	Journal	Technical supporter	University	Both	Speaking, Writing, Strategy, Perception, Engagement
17	Han (2024)	Journal	Technical supporter	University	Both	Writing, Perception
18	Hong & Shin (2024)	Journal	Language instructor	University	Learners	Writing, Grammar
19	Huh, Baek, & Rha (2024)	Journal	Technical supporter	University	Both	Speaking, Use
20	S. J. Hwang (2024)	Master's	Facilitator	Elementary	Learners	Reading, Writing, Interest, Engagement, Self-confidence, Perception
21	Hwangbo & Bae (2024)	Journal	Facilitator	High school	Learners	Reading, Writing, AI literacy, Self-efficacy
22	Im (2023)	Journal	Facilitator	University	Learners	Writing, Perception
23	Im & Cha (2024)	Journal	Facilitator	University	Learners	Reading, Writing, Strategy, Self-directed learning
24	Im, Yoon, & Lee (2024)	Journal	Facilitator	University	Learners	Speaking, Interest, Motivation, Self-confidence, Attitude
25	Jang (2024)	Master's	Instructional organizers	Secondary	Both	Writing, Perception
26	Jeon & Lee (2023)	Journal	Resource of feedback	University	Instructor	Writing

	Study (year)	Publication	Instructors' roles	School level	Users	Outcome
27	N. Jeong (2024)	Journal	Technical supporter	University	Both	Writing, Satisfaction, Perception, Attitude
28	Y. Jeong (2024)	Master's	Instructional organizers	High school	Both	Communicative skills, Perception, Strategy
29	Jo & Kim (2023)	Journal	Facilitator	Elementary	Learners	Vocabulary, Interest, Perception
30	R. Kim (2023)	Journal	Facilitator	High school	Learners	Reading
31	M. K. Kim (2023)	Journal	Facilitator	University	Learners	Writing, Speaking, Perception, Critical thinking
32	Jeonga Kim (2024)	Journal	Language instructor	University	Learners	Writing, Strategy, Attitude
33	R. Kim (2024)	Journal	Language instructor	High school	Learners	Reading, Perception, Use
34	H. Kim (2024)	Journal	Facilitator	University	Learners	Speaking, Writing, Perception, Satisfaction
35	S. Kim (2024)	Journal	Facilitator	University	Learners	Writing
36	H. K. Kim (2024)	Journal	Technical supporter	University	Learners	Writing, Motivation, Engagement
37	Jia Kim (2024)	Master's	Resource of feedback	Middle school	Learners	Writing, Anxiety, Perception
38	J. Y. Kim (2024)	Master's	Instructional organizers	Middle school	Learners	Writing, Speaking, Perception, Response
39	M. J. Kim (2024)	Master's	Instructional organizers	Elementary	Instructor	Reading, Writing, Interest, Self-confidence, Self-directed learning
40	K. W. Kim (2024)	Master's	Technical supporter	High school	Learners	Perception, Grit
41	Y. Kim (2024)	Doctoral	Resource of feedback	University	Learners	Writing, Self-efficacy, Satisfaction
42	N. Kim & H. Kim (2024)	Journal	Facilitator	University	Learners	Four skills, Perception
43	H. Kim & N. Kim (2024)	Journal	Facilitator	University	Learners	Perception, Use
44	Kim & Lee (2024)	Journal	Facilitator	University & Graduate school (Adult)	Learners	Perception
45	Kim & Min (2024)	Journal	Instructional organizers	High school	Instructor	Reading, Interest, Motivation
46	Kim & Park (2023)	Journal	Instructional organizers	Elementary	Instructor	Speaking, Perception
47	Kim, Shim, & Min (2024)	Journal	Instructional organizers	Elementary	Instructor	Vocabulary, Interest, Self-confidence
48	Kwon & Kim (2024)	Journal	Resource of feedback	University	Learners	Writing, Perception
49	Leam (2024)	Journal	Language instructor	University	Learners	Writing, Satisfaction
50	S. Lee (2024)	Journal	Resource of feedback	University	Learners	Writing, Perception
51	S. Lee (2024)	Journal	Resource of feedback	University	Learners	Writing, Satisfaction, Perception, Interest, Self-confidence, Motivation
52	C. E. Lee (2024)	Master's	Facilitator	Secondary	Learners	Writing, Motivation, Self-confidence, Interest, Engagement, Satisfaction, Perception
53	Y. Lee (2023)	Journal	Facilitator	University	Learners	Writing, Perception, Use

	Study (year)	Publication	Instructors' roles	School level	Users	Outcome
54	Lee & Cho (2024)	Journal	Facilitator	University	Learners	Writing, Perception
55	Lee & Choi (2024)	Journal	Technical supporter	University	Both	Writing, Perception, Use
56	Lee & Davis (2024)	Journal	Facilitator	University	Learners	Four skills, Self-directed learning, Grit
57	Lee & Min (2024)	Journal	Instructional organizers	Elementary	Instructor	Recall of key sentences, Interest, Motivation, Anxiety, Self-confidence, Attitude
58	Lim (2024)	Journal	Resource of feedback	Soldiers (Adults)	Learners	Speaking, Perception
59	Mun (2024)	Journal	Technical supporter	University	Both	Writing, Perception
60	Noh (2024)	Journal	Resource of feedback	University	Learners	Speaking, Motivation, Perception
61	Oh et al. (2023)	Journal	Facilitator	University	Learners	Reading, Writing, Speaking
62	H. Park (2024)	Journal	Facilitator	University	Learners	Writing, Strategy, Anxiety, Perception
63	M. S. Park (2024)	Journal	Language instructor	University	Learners	Syntax
64	J. H. Park (2024)	Journal	Facilitator	University	Both	Reading
65	H. Park (2024)	Journal	Facilitator	University	Learners	Writing, Perception
66	Park & Kim (2024)	Journal	Resource of feedback	University	Learners	Writing, Motivation, Perception
67	Park & Park (2024)	Journal	Instructional organizers	High school	Both	Reading, Perception, Self-directed learning
68	Rha (2024)	Journal	Facilitator	University	Learners	Speaking
69	Rha & Baek (2024)	Journal	Resource of feedback	University	Learners	Writing, Use
70	Shim & Kim (2024)	Journal	Resource of feedback	High school	Instructor	Writing, Perception
71	Shin (2023)	Journal	Technical supporter	Teachers (Adult)	Learners	Reading, Perception, Satisfaction
72	Shin, Lee, & Noh (2023)	Journal	Technical supporter	Elementary	Learners	Engagement, Motivation
73	Suh (2024)	Journal	Facilitator	University	Learners	Writing, Perception
74	Sung & Jang (2024)	Journal	Facilitator	Graduate school (Adult)	Learners	Writing
75	Yi (2024)	Journal	Facilitator	University	Learners	Writing, Critical thinking, Perception
76	Yu (2024)	Journal	Technical supporter	University	Learners	Writing, Perception