



Castledown

 OPEN ACCESS

Technology in Language Teaching & Learning

ISSN 2652-1687

<https://www.castledown.com/journals/tltl/>

Technology in Language Teaching & Learning, 8, 103649 (2026)

<https://doi.org/10.29140/tltl.2026.103649>

Integrating ChatGPT into Thai Essay Writing Instruction for Vietnamese Learners



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Abstract

Integrating ChatGPT into essay writing instruction offers numerous benefits, helping learners develop writing competence and promoting the ethical use of AI. However, learners' awareness of academic integrity does not necessarily guarantee that they will adhere to it. This study explores learners' strategies for practicing Thai essay writing independently before participating in the ChatGPT-integrated instructional method, learners' evaluations of this new method, and learners' awareness of academic integrity when using ChatGPT. The researchers conducted a quantitative study with 20 learners and collected data through pre-test and post-test questionnaires. The findings indicate that before the intervention, learners combined tools such as ChatGPT and Google Translate with traditional writing strategies. After the intervention, learners demonstrated positive attitudes toward the new instructional method. Nevertheless, they needed additional time to adapt, to develop critical evaluation skills for ChatGPT-generated information, and to enhance their awareness of academic integrity in AI-assisted essay writing. The study also reveals that instructors should not rely solely on the results of AI-detection tools, as these may produce false positives or inaccurate assessments. These findings underscore the crucial role of instructors in guiding, supervising, and safeguarding academic integrity, while highlighting the need to develop complementary assessment methods to evaluate learners' competencies more objectively and effectively.

Keywords: ChatGPT; essay writing; Thai language; Vietnamese learners.

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Introduction

Thai language instruction in Vietnam has been implemented for over 30 years at five universities across the country. This study was conducted at a university in central Vietnam, where the Bachelor's program in Thai focuses on developing four language skills alongside basic grammar during the first 2.5 years. The remaining 1.5 years are devoted to advanced courses in Thai sociocultural studies, Thai literature, Thai linguistics, and translation. According to this curriculum structure, learners begin at the A1 level and are expected to reach the B2 level according to the Common European Framework of Reference for Languages (CEFR) (University of Foreign Language Studies - The University of Danang, 2021). However, at the B1 and B2 levels, writing instruction focuses primarily on theoretical aspects and involves limited integration of technology. Learners are taught the fundamentals of Thai essay writing, including text structure, writing principles, appropriate vocabulary selection, grammatical sentence formation, and essay development according to standard conventions. Subsequently, learners practice constructing sentences and using vocabulary, complete topic writing assignments, and receive feedback from the instructor.

Despite this systematic instruction, learners often encounter various challenges during the writing process, many of which arise from the linguistic characteristics of the target language. Each language exhibits distinct linguistic features, which may result in similarities and differences in comparison with learners' native languages. Regarding the Thai language, learners commonly experience challenges with spelling, language use, word order, spacing between words, and punctuation (Phan, 2009). In response to these difficulties, learners employ a variety of learning strategies to address these challenges. Learners demonstrate the highest reliance on social strategies, such as exchanging ideas, engaging in dialogue, asking questions, reading textbooks, and completing assignments. This is followed by metacognitive, cognitive, compensation, and affective strategies, while memorization strategies, such as vocabulary note-taking and repetitive writing practice, are used the least (Xiaoyan et al., 2022).

Based on the challenges faced by learners and the strategies they employ to improve foreign language learning, instructors have adopted various methods to provide more effective support. Some instructional methods focus on learner-centered activities, including practicing tone distinctions, expanding vocabulary and grammatical structures, improving pronunciation, distinguishing consonants absent in Vietnamese, and memorizing final consonants (Phan, 2009). In addition, instructors design lessons, assignments, and activities that are aligned with learners' foundational abilities and learning objectives (Phoonphon & Bunsong, 2019). Additionally, instructional methods involve designing progressively structured content. Instruction typically begins with basic-level lessons, such as expanding vocabulary, constructing sentence structures, and using conjunctions. It then advances to higher-level lessons, including reading comprehension, summarizing key points through mind maps, and composing coherent paragraphs (Plaengsorn, 2024; Thongtaweewattana, 2019).

In recent years, the rapid development of AI technologies has introduced new tools that can further support this learning process. Previous studies have indicated that using AI tools such as ChatGPT in language instruction yields positive outcomes for learners, including enhancing writing skills, improving text organization, checking grammar, identifying and correcting errors, increasing creativity, providing examples, and finding information. Moreover, learners have used ChatGPT for generating topic suggestions, outlining ideas, clarifying concepts, and revising written materials (Mahapatra, 2024; Meniado et al., 2024; Karimi & Qadir, 2025; Lai & Trinh, 2025). However, studies on AI and Thai writing skills remain relatively limited. Phorueang (2025) found that integrating AI into Thai language instruction for Thai undergraduate learners enhanced their analytical and critical thinking skills by engaging them in identifying and correcting structural, content, and language usage errors in ChatGPT-generated texts. Thai language outputs created by ChatGPT were found to contain grammatical

errors related to word order, sentence structure, prepositions, language level, and semantic accuracy, incomplete content, poor paragraph cohesion, foreign-influenced sentence structures, and a lack of conciseness. Moreover, Madee (2025) expressed concerns regarding the application of AI in Thai language learning. As a less common language, heavily reliant on idioms and words with implied meanings, and needing to be understood within its cultural context, Thai presents challenges for AI systems, which may produce inaccurate outputs due to limited training data. Additionally, Madee (2025) argues that integrating AI with theories such as Constructivism, Blended Learning, Cognitive Load Theory, or Self-determination Theory in learning activities could enable instructors to assess learners' competencies across diverse contexts aligned with instructional goals. Overall, using AI in foreign language learning, especially Thai, requires further development, as empirical studies involving non-native learners of the Thai language remain limited.

At the same time, alongside its potential benefits in supporting language learning, the growing use of Generative Artificial Intelligence (GenAI) tools such as ChatGPT has also raised concerns regarding academic dishonesty (Rudolph et al., 2023; Sharma & Panja, 2025). ChatGPT's current capabilities make it challenging for readers to distinguish between AI-generated and human-written text (Cotton et al., 2023; Malik et al., 2024). Given this limitation, some learners may employ AI tools to complete assignments (Malik et al., 2024; Vieriu & Petrea, 2025). Consequently, AI detection tools, including Turnitin, ZeroGPT, GPTZero, WriterAI, and Copyleaks, have been developed to evaluate the originality of AI-generated text (Barrot & Aranda, 2025; Malik & Amjad, 2025). However, warnings have been issued regarding the possibility of false positives from these detection tools (Črček & Patekar, 2023; Malik & Amjad, 2025).

Nevertheless, despite these concerns, integrating AI into education has become inevitable. The authors argue that instructors should permit and guide learners appropriately using ChatGPT. This aims not only to prevent learners from directly copying text generated by ChatGPT for assignments, but also to encourage its use as a supportive tool for foreign language learning. Furthermore, instructor guidance helps learners' ethical awareness and attitudes toward using ChatGPT, thereby preventing violations of academic integrity. Accordingly, this study aims to answer three research questions:

1. What strategies do learners commonly use to practice Thai essay writing independently?
2. How do learners evaluate the ChatGPT-integrated Thai essay writing instructional method?
3. How is learners' awareness of academic integrity when using ChatGPT in educational contexts?

Literature Review

Constructivist Theoretical Framework

In the past, instructors were often regarded as playing a crucial role in transmitting knowledge, controlling, and directing learners' acquisition of knowledge in a passive manner (Allen, 2022). However, in an era of rapid scientific and technological advancement, instructors' roles have shifted from primarily transmitting knowledge to facilitators and guides, encouraging learners to explore and construct knowledge independently. This method is based on Constructivist Theory, established by Jean Piaget. Constructivism emphasizes learners' application of prior knowledge and active engagement in reassessing their understanding within educational contexts (Chand, 2023). The knowledge construction process consists of three main stages: 1) Assimilation: learners integrate new knowledge into existing cognitive structures to independently construct new understanding; 2) Accommodation: learners modify existing knowledge structures or understanding to align with new information, and; 3) Equilibration: the process of maintaining a balance between existing and newly acquired knowledge (Chand, 2023).

Therefore, Constructivist Theory has been widely applied in research on the development of foreign language writing skills among learners. Among the components of a good essay, knowledge plays an indispensable role alongside language proficiency. In this study, the knowledge acquired by learners in class includes general topic knowledge, relevant vocabulary and sentence structures, as well as insights gained from listening to peers' and the instructor's perspectives during group discussions. This theoretical framework is applied in classroom instruction in combination with ChatGPT, which supports learners in information searching to complete learning tasks. The effectiveness of this method lies in learners' integration of prior knowledge with newly acquired knowledge, followed by comparison between pre-learning and post-learning knowledge, through which they construct their own knowledge to support independent writing practice. Subsequently, learners use this knowledge to complete assignments with the assistance of ChatGPT, following the essay-writing process in which they were previously trained. Overall, in a multilingual context, Galil et al. (2024) revealed that this method was highly effective in improving adult learners' writing proficiency within a blended learning context. Similarly, Taraj et al. (2025) demonstrated the effectiveness of the constructivist method in enhancing the writing skills of undergraduate learners. The findings indicated positive outcomes, showing that compared with the control group taught using traditional methods, the experimental group employing constructivist methods demonstrated statistically significant improvement. These results confirm that the constructivist method is suitable for application in developing learners' foreign language writing skills.

Using ChatGPT in Foreign Language Education

At present, an increasing number of studies have demonstrated the effectiveness of integrating ChatGPT into foreign language instruction. The advantages of ChatGPT include its capacity to generate human-like responses, provide rapid answers, and offer flexibility in linguistic expression according to users' preferences (Barrot, 2023). Learners' attitudes toward using ChatGPT indicate that these features significantly enhance language skills, such as improving grammatical accuracy, expanding vocabulary, increasing motivation, and encouraging greater engagement in learning activities (Karataş et al., 2024). In addition, learners use ChatGPT for self-directed learning in various ways, such as generating study plans, identifying suitable learning strategies, creating their own examples based on words or phrases suggested by ChatGPT, and then asking the tool to evaluate them, as well as selecting and refining ideas proposed by ChatGPT (Tran, 2025). AI tools are also employed in many complex academic writing tasks, including essays, literature reviews, internship reports, and research papers. Learners tend to use AI across multiple stages of the writing process, as these tools help improve grammatical accuracy, generate ideas, expand vocabulary, enhance writing confidence, and reduce writing time (Thi et al., 2025). Moreover, learners' awareness of the accuracy, fluency, and limitations of AI tools has gradually increased, indicating that they are able to engage in critical thinking through guided comparative activities by instructors (Strobl et al., 2024).

However, divergent perspectives suggest that the use of AI tools in foreign language education not only offers new opportunities but also presents potential challenges (Khampusaen, 2024). These tools still have limitations regarding information accuracy. Some responses may lack emotional nuance, fail to replicate authentic human tones, and exhibit a degree of linguistic rigidity (Barrot, 2023). Żammit (2024) found that ChatGPT's responses still contain grammatical and vocabulary errors, as well as limitations in conversational competence in Maltese. This is attributed to the fact that Maltese is a limited-resource language, resulting in insufficient training data for ChatGPT. This issue is comparable to challenges observed in the Thai language context. Furthermore, issues such as plagiarism and overdependence on AI have emerged as potential concerns in the learning process (Barrot, 2023; Karataş et al., 2024). Neff et al. (2024) also express concern that learners' perceptions of what constitutes ethical and unethical uses of AI are currently misaligned with those of instructors. While learners

may view acknowledging the use of AI as an ethical behavior, some instructors do not share this perspective. Other learners report that ChatGPT's responses are often vague, overly general, inaccurate, and inclined to satisfy user expectations, and they also perceive AI-assisted outputs as not genuinely representing their own work (Carlini Versini et al., 2025).

However, the benefits of ChatGPT cannot be overlooked, and instructors should adapt to serve as guides in learners' acquisition of knowledge and learning strategies. Nguyen and Doan (2025) focus on learner autonomy in foreign language learning alongside the application of ChatGPT and showed that ChatGPT supported the development of learners' autonomy and personal effectiveness, while also positively influencing proactive learning and experimentation. Nevertheless, the role of instructors remains essential in reinforcing learning habits. In addition, Nguyen (2025) investigated the application of ChatGPT in foreign language writing instruction and found that the experimental group exhibited positive improvement across all writing criteria, as well as increased motivation for writing. Learners also transitioned from a task-completion method to actively participating in the learning process. However, for this model to attain greater effectiveness, a clear pedagogical framework and adequate time for adaptation are still required to stimulate learner autonomy. Moreover, Ito (2025) reported that learners had rarely received guidance on using ChatGPT and expressed positive attitudes when instructors provided instruction on using this tool. Although many educational institutions have provided guidelines for learners on using ChatGPT, in practice, learners still have to learn to use it independently without instructors' support during classroom learning. Accordingly, instructors should provide explicit guidance on the appropriate use of AI in academic assignments (Carlini Versini et al., 2025; Neff et al., 2024). Limna and Shaengchart (2025) likewise observe that learners' awareness of responsible ChatGPT use tends to increase, reflecting a clearer understanding of their responsibilities when engaging with AI. Therefore, instructors should guide learners to use AI as a tool for supporting critical thinking, idea generation, and language skill development, while avoiding overreliance by applying a constructivist theoretical framework that encourages learners to critically evaluate AI-generated content. In addition, Carlini Versini et al. (2025) report that some learners demonstrate limited prompt construction skills. As such, instructors should also provide instruction on effective prompt construction to enable learners to use AI tools more optimally. In conclusion, the benefits of ChatGPT can only be fully realized when instructors maintain a pivotal role in guiding and directing learners in the appropriate use of this tool. ChatGPT can assist in reducing instructors' workload and facilitating improvements in educational quality, but pedagogical expertise remains irreplaceable by AI (Fang & Han, 2025).

Methodology

Research Design

This study employed a quantitative method, collecting data through two sets of learners' self-assessment questionnaires. The questionnaires were administered within a one-group pre-test and post-test design during an experiment of a ChatGPT-integrated Thai essay writing instructional method. The instructional intervention was conducted over six classes across six weeks, with one class per week, each lasting three hours. Initially, the authors provided detailed information about the study and administered the pre-test questionnaire. In the subsequent classes, participants attended training classes designed to equip them with foundational knowledge of GenAI, including ChatGPT, and academic integrity, followed by practical application of this knowledge to writing learning activities under the authors' supervision. After the intervention was completed, participants completed the post-test questionnaire. Participants were assigned to complete four homework essays on four familiar topics previously studied in class, and were asked to complete essays in Word files to assess learners' academic integrity in using ChatGPT for learning after the training. Upon completion, the essays were submitted through a designated email address. Further details of the study are presented in the Experimental Process.

Participants

The study sample consisted of 20 third-year learners enrolled in a Thai language program at a university in Vietnam, all of whom were Vietnamese. Participants were between 20 and 21 years old. Among them, eight learners (40%) had a cumulative grade point average (GPAX) ranging from 3.60 to 4.00, six learners (30%) had a GPAX between 3.20 and 3.59, and six learners (30%) had a GPAX between 2.50 and 3.19. The GPAX grading system in Vietnam is converted as follows (Ministry of Education and Training, 2021) (see Table 1):

Table 1 *The Vietnamese Grading System and GPA*

Score (10-point scale)	Score (4-point scale)	Grade Description
9.00–10.00	3.60–4.00	Excellent
8.00–8.99	3.20–3.59	Very good
7.00–7.99	2.50–3.19	Good
5.00–6.99	2.00–2.49	Average
4.00–4.99	1.00–1.99	Weak
Below 4.00	Below 1.00	Fail

Before participating, all learners had experience using ChatGPT to write Thai essays. However, none had received guidance on using ChatGPT appropriately to prevent academic dishonesty, nor had learners participated in a ChatGPT-integrated Thai essay writing instructional method. Third-year learners were selected because, based on the program structure, the authors determined that this group had no prior background in Thai before entering university. They had received continuous instruction from the A1 level and had reached the B1 level (pre-intermediate) according to the Common European Framework of Reference for Languages (CEFR) in the third year of study. Learners' B1 proficiency was assessed based on their progress in completing the program at the university, combined with their GPAX results across five semesters, all within the range of 2.50 to 4.00.

This study received ethical approval from the Human Research Ethics Committee to conduct experimental research involving human participants. The learners were fully informed of the research objectives, the potential benefits, and risks associated with participation. They were given sufficient time to review the information, consider whether to participate, and then sign a fully detailed written consent form. Therefore, participation in the study is entirely voluntary. In addition, all participants' information was anonymized and replaced with pseudonym codes.

Data Collection Tools

The pre-test and post-test questionnaires were designed based on prior studies concerning using ChatGPT in second language writing (Barrot, 2023; Meniado et al., 2024) and its application in foreign language learning assignments (Xiao & Zhi, 2023). The findings and discussion regarding the benefits and challenges of learning foreign languages with ChatGPT, together with learners' perceptions of using this tool for language writing, served as the basis for the development of two questionnaires. The pre-test questionnaire comprised pseudonym code, study results, and learners' strategies for practicing Thai essay writing independently (see Figure 1). The questionnaire offered nine answer options (A1–A9) (see Appendix A), allowing learners to select multiple answers based on individual experiences.

The questionnaire items were designed to examine learners' learning strategies, including behaviors commonly used at different stages of the writing process and the ways in which learners employed technology to support their writing before training in the use of AI. The post-test questionnaire comprised pseudonym code, study results, learners' evaluations of the ChatGPT-integrated Thai essay writing instructional method (see Table 2), and learners' awareness of academic integrity in using ChatGPT for learning (see Figure 2). The evaluation of the instructional included ten items (B1–B10) (see Appendix B) on a 5-point Likert scale to assess learners' perceptions of its usefulness. The learners' ethical awareness consisted of ten items (C1–C10) (see Appendix C) in a Yes-No question format, requiring learners to select one of two answers to express their individual opinion. The questionnaire items were designed to assess the suitability of the new writing instruction method for learners. The questions focused on several aspects, including the extent to which the method supported knowledge acquisition, the development of independent writing skills, critical thinking, the ability to use technology in foreign language learning, and learners' awareness of academic integrity when using AI in education.

The questionnaires were reviewed by three experts with expertise in the Thai language to assess the appropriateness of each item using the Index of Item Objective Congruence (IOC) criterion, with three evaluation levels: +1 for items suitable, 0 for items uncertain, and -1 for items unsuitable. The evaluation results for the pre-test questionnaire were $L1 = 0.7143$, $L2 = 1.00$, $L3 = 0.6735$, with an average of $0.80/1.00$. For the post-test questionnaire, the results were $L1 = 0.5143$, $L2 = 1.00$, $L3 = 0.9143$, with an average of $0.81/1.00$, indicating that both questionnaires were appropriate for research objectives. Additionally, several items in the questionnaire were revised, and items deemed unsuitable for the research objectives were eliminated based on the experts' recommendations.

Experimental Process

This study was designed in the constructivist theoretical framework of Piaget (Chand, 2023). The instructional process was adapted to suit this study using the constructivist learning management (Office of the Education Council, 2007). The study was conducted over six classes, with one class per week, each lasting three hours. In addition, four writing topics were selected, all of which had been studied and practiced by the learners in previous semesters. In the first class, the instructor introduced an overview of the research procedure and data collection process. Participants who agreed to participate completed the pre-test questionnaire via Google Forms. In the second class, instruction focused on foundational knowledge of GenAI, including ChatGPT, basic concepts and functioning mechanisms, principles of prompt construction for foreign language learning, the use of ChatGPT to enhance writing skills and support the writing process, as well as issues related to academic integrity when using AI tools in education. From the third to the sixth classes, the instructor provided knowledge about four topics: education, tourism, environment, and society, while integrating the application of ChatGPT in learning. In the sixth class, learners completed a post-test questionnaire via Google Forms.

Each instruction and learning process comprised five steps:

1. Orientation: The instructor presented the lesson topic and explicitly stated the learning objectives.
2. Elicitation of the prior knowledge: The instructor encouraged learners to demonstrate and share their existing knowledge related to the topic.
3. Restructuring of ideas: The instructor provided relevant vocabulary and sentence structures, and guided learners to use ChatGPT to study the vocabulary and construct sentences using the given structures. Furthermore, the instructor presented content alongside guiding questions and encouraged learners to use ChatGPT for further study, engage in discussions, and deliver group presentations. Afterward, the instructor provided answers and validated the learners' presentations.

4. Review of new knowledge: Learners compared prior and newly acquired knowledge.
5. Application: The instructor prepared content for the assigned assignment.

Before the end of each class, learners were assigned an assignment based on the day's topic. These assignments needed to be completed and submitted to the instructor via a designated email. In addition, the instructor provided additional guidance on using prompts to explore ideas, vocabulary, and grammar, as well as answer learner questions. Then, learners applied knowledge of the essay writing process using ChatGPT as a supportive tool to own writing.

Data Analysis

The data in this study were analyzed using descriptive statistics. Data presented in Figures 1 and 3 for RQ1 and RQ3 were presented using frequency and percentage collected via Google Forms. For the data in Table 2 addressing RQ2, Excel and SPSS were employed to calculate Mean and *SD* for a five-point Likert scale from 1 to 5, categorized as follows: 4.21–5.00 (Strongly agree), 3.41–4.20 (Agree), 2.61–3.40 (Neutral), 1.81–2.60 (Disagree), and 1.00–1.80 (Strongly disagree), and combined with the summing of the percentages of “Agree” and “Disagree” responses obtained from Google Forms. Additionally, human-written text similarity data from Turnitin were evaluated using an acceptable threshold of $\leq 15\%$, while AI-generated text similarity was examined using GPTZero, ZeroGPT, and Copyleaks. Both plagiarism detection datasets were analyzed using Excel to calculate average values across learners and topics, as reported in Table 3 and Table 5.

Results

Learners' Strategies for Practicing Thai Essay Writing Independently Before Participating in the ChatGPT-Integrated Instructional Method

The survey results regarding learners' strategies for practicing Thai essay writing independently before participating in the ChatGPT-integrated instructional method are presented in Figure 1.

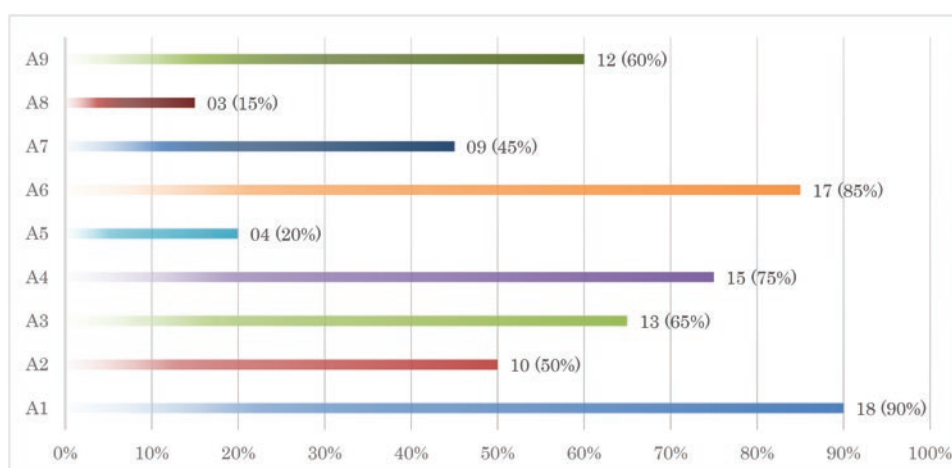


Figure 1 Learners' Strategies for Practicing Thai Essay Writing Independently (See Appendix A)

Based on the results presented in Figure 1, learners tend to rely heavily on technological tools before and during the essay writing process, including online dictionaries and Google (45%–90%), and Google Translate or ChatGPT to complete assignments, while seeking assistance from instructors (15%) or Thai native speakers (20%) for reviewing and revising written works remains relatively

uncommon. This indicates that most learners primarily depend on learning support tools, while only a small proportion rely on their own independent writing abilities. However, using these tools for specific assignments is not always effective. Learners are more inclined to use ChatGPT or Google Translate to complete entire writing assignments (75%–85%) rather than using these tools to check and correct grammar errors and adjust vocabulary (60%). The frequency of outlining and reviewing before submission is average (50%–65%), suggesting that while learners still value writing quality, consistency across the writing process remains limited. These findings provide instructors with clearer insights into learners' technology use during essay writing practice and serve as an empirical basis for designing ChatGPT-integrated writing instruction that aligns with learners' actual learning behaviors and preferences.

Learners' Evaluations of the ChatGPT-Integrated Thai Essay Writing Instructional Method

Table 2 presents learners' evaluations of the ChatGPT-integrated Thai essay writing instructional method. The data presented below were calculated by summing the percentages of the "Strongly agree" and "Agree" responses, as both indicate learners' agreement, and the percentages of the "Strongly disagree" and "Disagree" responses, as both reflect learners' disagreement.

Table 2 *Learners' Evaluations of the ChatGPT-Integrated Thai Essay Writing Instructional Method (See Appendix B)*

Items	N	Mean	SD	Agree (%)	Neutral (%)	Disagree (%)
B1	20	4.35	0.75	85	15	0
B2	20	4.50	0.61	95	5	0
B3	20	4.45	0.69	90	10	0
B4	20	4.40	0.75	85	15	0
B5	20	4.30	0.73	85	15	0
B6	20	4.35	0.75	85	15	0
B7	20	4.55	0.69	90	10	0
B8	20	4.60	0.68	90	10	0
B9	20	4.45	0.83	80	20	0
B10	20	4.35	0.67	90	10	0

The results presented in Table 2 indicate that learners responded positively to the ChatGPT-integrated Thai essay writing instruction. The majority of participants agree that this method helps "understand how to use ChatGPT ethically" ($M = 4.60$) and "practice using technology to support foreign language learning" ($M = 4.55$). The third item is "understand lessons faster and remember knowledge better" ($M = 4.50$). Ranked jointly in fourth place are "increase the amount of knowledge I can absorb in a lesson" and "learn how to evaluate the quality of ChatGPT-generated text" ($M = 4.45$). Although fewer learners selected the item "develop my critical thinking skill", it still received a relatively high rating overall ($M = 4.40$). In addition, three items "well-suited to my self-study style", "improve my writing skill", and "increase my interest in learning writing skill" received equal evaluations from learners ($M = 4.35$). Finally, learners perceived that "it stimulates my thinking to create new knowledge from knowledge and information I have previously acquired" to be the least effective, with the lowest mean score ($M = 4.30$). Nevertheless, this value still fell within the high agreement range (4.21–5.00). From a percentage perspective, most learners select the item "understand lessons faster and remember

knowledge better” (95%). However, a small percentage of learners still have difficulty evaluating the quality of content generated by ChatGPT (20%).

In conclusion, most learners demonstrated a positive attitude toward using ChatGPT in Thai essay writing instruction. This method facilitated comprehension, memorization, and knowledge expansion, developing critical thinking skills, using ChatGPT ethically to prevent academic dishonesty, increasing learning motivation, and enhancing independent essay writing abilities. Furthermore, no learners disagreed or strongly disagreed, indicating widespread acceptance of the method. However, some learners reported neutral responses, saying that they need additional time to adapt to the new method or require more detailed guidance from the instructor on effectively using ChatGPT, including evaluating the quality of AI-generated text.

Learners' Awareness of Academic Integrity in Using ChatGPT for Learning

The following figure presents data demonstrating learners' awareness of academic integrity in using ChatGPT for learning.

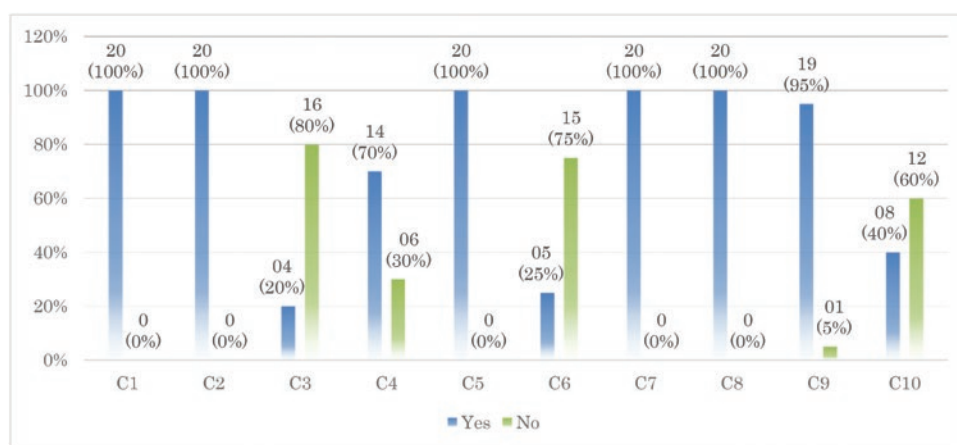


Figure 2 Learners' Awareness of Academic Integrity in Using ChatGPT for Learning (See Appendix C)

Figure 2 shows that five out of ten items received 100% agreement, reflecting learners' strong awareness of ethics and academic integrity in using ChatGPT for learning, as well as careful consideration regarding its role as a supportive tool for learning and research in educational institutions. Furthermore, 95% of learners agreed that instructors should allow and provide guidance on using ChatGPT appropriately. However, 40% of learners admitted to still using ChatGPT to plagiarize writing even without permission, and only 20% admitted to directly copying others' work. In addition, 70% of learners reported using ChatGPT to write part or all of an essay, while only 25% had been caught doing so.

This suggests that, despite learners' strong awareness of academic integrity and ethical issues, learners still tend to rely on AI tools such as ChatGPT to complete assignments rather than seeking instructor support. Notably, while learners recognize plagiarism as unethical, some continue to engage in academic dishonesty or improper use of ChatGPT. Overall, learners acknowledge the benefits of integrating ChatGPT into the learning process, but still require clear support and guidance from instructors to avoid unethical behavior.

Based on the above data, the results of plagiarism detection for human-written text and AI-generated text produced by ChatGPT are presented in the following tables to provide empirical support for the findings on learners' awareness of ethics and academic integrity.

Table 3 shows that the highest plagiarism rate was found in the environment topic, with seven essays exceeding 15%, followed by the society topic with five essays. The maximum plagiarism rate reached

Table 3 *Turnitin Results for Human-Written Text Plagiarism Detection*

Pseudonym codes	Human-written plagiarism rate (%)				Average human-written text plagiarism rate per learner (%)
	Tourism	Education	Environment	Society	
VN2501	6	0	26	17	12.25
VN2502	5	2	18	16	10.25
VN2503	9	7	6	15	9.25
VN2504	6	2	0	16	6.00
VN2505	10	2	7	7	6.50
VN2507	13	2	13	11	9.75
VN2508	5	0	9	8	5.50
VN2509	4	7	5	13	7.25
VN2510	0	10	24	22	14.00
VN2511	15	10	17	21	15.75
VN2513	11	8	12	12	10.75
VN2514	10	2	5	9	6.50
VN2515	11	3	24	6	11.00
VN2516	8	2	10	12	8.00
VN2517	9	5	18	8	10.00
VN2518	8	0	17	13	9.50
VN2519	14	0	12	12	9.50
VN2520	4	6	9	6	6.25
VN2521	8	6	10	3	6.75
VN2523	13	7	4	9	8.25
Average human-written text plagiarism rate per topic (%)	8.45	4.05	12.30	11.80	

26% in the environment topic, while the minimum rate of 0% was observed across tourism, education, and environment topics. No essays on the topic of society had a 0% plagiarism rate. Furthermore, the average plagiarism rate for the environment and society topics was 12.30% and 11.80%, respectively, higher than those for education and tourism. These findings suggest that learners have more difficulty generating ideas and sourcing information or knowledge related to the environment and society topics, leading to a higher rate of plagiarism. Furthermore, only one learner exhibited a plagiarism rate exceeding 15% of the average human-written text plagiarism rate per learner among the 20 learners, indicating that most learners do not demonstrate habitual human-written text, which aligns with the survey results presented in Figure 2. Overall, learners adhered to academic integrity regarding human-written text plagiarism. However, when addressing unfamiliar topics, learners may encounter challenges in presenting knowledge, which can lead to instances of plagiarism.

Although the human-written text plagiarism rate was low, this study also considered the AI-generated text plagiarism rate. Table 4 presents the results of the AI-generated text plagiarism detection, obtained using three AI detection tools: GPTZero, ZeroGPT, and Copyleaks.

Table 4 Results of AI-Generated Text Plagiarism Detection Using GPTZero, ZeroGPT, and Copyleaks

Pseudonym Codes	AI-generated text plagiarism rate (%)											
	GPTZero				ZeroGPT				Copyleaks			
	Tourism	Education	Environment	Society	Tourism	Education	Environment	Society	Tourism	Education	Environment	Society
VN2501	100	100	100	100	0	0	0	0	100	100	100	100
VN2502	98	100	100	99	59.46	0	0	0	100	100	100	100
VN2503	99	100	100	100	54.76	42.55	100	68.29	100	100	100	100
VN2504	95	100	100	100	36.21	62.9	58.49	59.27	100	100	100	100
VN2505	100	100	100	100	56.1	55	56.6	54.76	100	100	100	100
VN2507	100	99	100	99	66.67	38.24	59.09	0	100	100	100	100
VN2508	96	100	99	98	0	0	58.54	58.18	100	100	100	100
VN2509	100	100	100	100	59.26	0	0	0	100	100	100	100
VN2510	100	100	99	99	0	0	0	64.52	100	100	100	100
VN2511	97	100	100	100	0	93.42	0	0	100	100	100	100
VN2513	86	96	99	99	0	58	53.33	70	100	100	100	100
VN2514	100	100	98	98	100	100	0	66.04	100	100	100	100
VN2515	99	96	100	99	0	100	54.17	62.34	100	100	100	100
VN2516	100	100	98	100	76.09	0	56.14	0	100	100	100	100
VN2517	100	100	99	100	100	37.21	71.43	71.05	100	100	100	100
VN2518	100	99	100	99	67.57	46.94	36.11	19.02	100	100	100	100
VN2519	91	99	99	92	60.47	41.18	39.62	52.73	100	100	100	100
VN2520	100	99	100	99	0	76.92	0	55.36	100	100	100	100
VN2521	91	100	100	99	62.5	100	52.7	38.46	100	100	100	100
VN2523	99	100	100	99	0	70.59	0	52.38	100	100	100	100

The AI-generated text plagiarism detection results using GPTZero, ZeroGPT, and Copyleaks indicate that GPTZero exhibited detection rates ranging from 91% to 100%. Copyleaks consistently reported a 100% detection rate across all topics. In contrast, ZeroGPT displayed substantial variability, with a markedly higher frequency of 0% detection rates compared to the other two tools, as well as wide fluctuations in its detection percentages. Notably, discrepancies were observed in specific learners' essays. GPTZero and Copyleaks reported AI-generated text detection rates of 86% and from 96% to 100%, while ZeroGPT indicated 0%, reflecting the differences in AI-generated text detection performance among the three tools.

Accordingly, based on the results presented in Table 4, the authors calculated the average plagiarism rate generated by AI from the three detection tools for each learner and each topic, as reported in Table 5.

Table 5 *Average AI-Generated Text Plagiarism Rates for Each Learner and Each Topic*

Pseudonym codes	Average AI-generated text plagiarism rate across three detection tools per topic (%)				Average AI-generated text plagiarism rate per learner (%)
	Tourism	Education	Environment	Society	
VN2501	66.67	66.67	66.67	66.67	66.67
VN2502	85.82	66.67	66.67	66.33	71.37
VN2503	84.59	80.85	100.00	89.43	88.72
VN2504	77.07	87.63	86.16	86.42	84.32
VN2505	85.37	85.00	85.53	84.92	85.21
VN2507	88.89	79.08	86.36	66.33	80.17
VN2508	65.33	66.67	85.85	85.39	75.81
VN2509	86.42	66.67	66.67	66.67	71.61
VN2510	66.67	66.67	66.33	87.84	71.88
VN2511	65.67	97.81	66.67	66.67	74.20
VN2513	62.00	84.67	84.11	89.67	80.11
VN2514	100.00	100.00	66.00	88.01	88.50
VN2515	66.33	98.67	84.72	87.11	84.21
VN2516	92.03	66.67	84.71	66.67	77.52
VN2517	100.00	79.07	90.14	90.35	89.89
VN2518	89.19	81.98	78.70	72.67	80.64
VN2519	83.82	80.06	79.54	81.58	81.25
VN2520	66.67	91.97	66.67	84.79	77.52
VN2521	84.50	100.00	84.23	79.15	86.97
VN2523	66.33	90.20	66.67	83.79	76.75
Average AI-generated text plagiarism rate per topic (%)	79.17	81.85	78.12	79.52	

Data in Table 5 reveal that most learners exhibited AI-generated text plagiarism rates exceeding 60%. The lowest average of AI-generated text plagiarism rates across the three detection tools per topic was 62% in the tourism topic. In contrast, the highest average reached 100%, appearing five times across three topics: twice in tourism, twice in education, and once in environment. This resulted in a high average AI-generated text plagiarism rate per learner, ranging from a minimum of 66.67% to a maximum of 89.89%, indicating that most of the learners' essays were AI-generated. In addition, some learners, such as VN2503, VN2505, VN2514, VN2517, and VN2521, had high plagiarism rates in all topics, ranging between 85% and 89%, indicating a high reliance on AI. Meanwhile, other learners, such as VN2501, VN2502, VN2509, and VN2510, showed lower overall averages, ranging between 66% and 71%, reflecting moderate AI use or possible revision essays after using AI. Thus, the learners' AI-generated text plagiarism rates were consistent with the questionnaire data in Figure 2, indicating that many learners tended to use AI tools, such as ChatGPT, to complete assignments. Although learners were guided on using ChatGPT as a supportive tool and were instructed on how to avoid plagiarism, the rates remained high. Furthermore, while learners were aware enough to recognize plagiarism as a learning misbehavior, there was no indication that learners strictly complied with the instructors' guidelines when completing assignments.

On the other hand, given the increasing number of AI-generated text detection tools currently available, the authors randomly selected three widely used tools (GPTZero, ZeroGPT, and Copyleaks) for use in this study. However, no AI-generated text detection tool has yet achieved 100% accuracy, and several studies have warned about the risk of false positives by such tools (Črček & Patekar, 2023; Malik & Amjad, 2025). First, the substantial discrepancies observed among the results obtained from the three tools indicate the instability of current detection algorithms. This inconsistency raises concerns regarding their accuracy and reliability, particularly when they are used as the sole basis for concluding academic dishonesty. Second, most AI detection models are primarily trained on English data, whereas the texts analyzed in this study were written in Thai. This mismatch increases the likelihood of false-positive results, as the algorithms may misinterpret specific linguistic features of Thai as indicators of AI-generated text. Therefore, the data in this study obtained from the three AI detection tools are considered as reference information and are used only to support the analysis of research arguments rather than as definitive evidence.

Discussion

This study aimed to examine the strategies adopted by Vietnamese learners when practicing Thai essay writing independently before participating in the ChatGPT-integrated instructional method, assess the effectiveness of the ChatGPT-integrated Thai essay writing instructional method, and explore learners' awareness of academic integrity in using ChatGPT for education.

Learners' Strategies for Practicing Thai Essay Writing Independently Before Participating in the ChatGPT-Integrated Instructional Method

The study revealed that learners engaged in various Thai essay writing independent activities, including searching for information, drafting outlines, employing the native language before translating it into the target language using tools, or using translation tools to obtain suggestions and revise the essay accordingly, as well as proofreading the essay before submission. This writing process aligns with the findings of Baharudin et al. (2023), who identified three stages of writing among foreign language learners. However, Baharudin et al. (2023) indicated that learners seldom employed their native language to compose and translate into the target language. Vietnamese learners in this study exhibited a contrasting trend, which may stem from differences in instructional methods and pedagogical methods.

This difference in learning behavior may also be related to learners' prior experience with technological tools used to support language learning. Before participating in the study, most learners had prior experience using ChatGPT to complete assignments. However, learners used this tool without explicit guidance from experienced individuals or instructors. Consequently, learners still misuse ChatGPT in the learning process. The lack of structured supervision may lead to overreliance on AI tools (Zhai et al., 2024; Zhang et al., 2024). This led the majority of learners to copy partially or entirely AI-generated text for assignments without engaging in self-editing or evaluative processes, or it may stem from the fact that many learners lacked the analytical capacity to assess the accuracy or appropriateness of the text generated by ChatGPT. This finding aligns with Meniado et al. (2024), who observed that learners expressed dissatisfaction with ChatGPT's suggestions due to concerns about the reliability and accuracy of its generated output, which may stem from learners' limited ability to evaluate such content critically.

Learners' Evaluations of the ChatGPT-Integrated Thai Essay Writing Instructional Method

Learners from several countries in Southeast Asia and East Asia often experience substantial pressure to achieve high academic grades, a phenomenon deeply embedded in Eastern educational culture. This observation aligns with the findings of Cho et al. (2023), Hsin and Xie (2014), and Meniado et al. (2024), who emphasized that the learning culture among Asian learners places considerable importance on grades and individual accomplishment. Therefore, designing a ChatGPT-integrated Thai essay writing instructional method as a learning support tool represents an appropriate approach to address this issue. Instructors should establish clear guidelines to guide learners in the proper use of ChatGPT, rather than resorting to extreme measures such as prohibiting its use or neglecting to provide instruction on the responsible application of AI tools in educational contexts (Črček & Patekar, 2023). Instructors should also encourage learners to perceive ChatGPT as a support tool for developing writing competence rather than as a means for plagiarism. This aligns with the study of Morsy et al. (2023), who proposed strategies to mitigate the risk of academic dishonesty by integrating ChatGPT into instruction and providing learners with explicit knowledge on utilizing the tool effectively.

The findings revealed that most learners expressed satisfaction with the ChatGPT-integrated Thai essay writing instructional method. Regarding knowledge, the method enhanced learners' ability to understand and memorize knowledge, while also increasing the knowledge learners gained. This improvement can be attributed to ChatGPT's capacity to analyze and address complex issues during classroom activities, which instructors may not always clarify immediately. Moreover, ChatGPT contributed to knowledge organization by summarizing textbook materials into concise key points while maintaining essential content coverage. Consequently, learners could grasp lesson concepts more effectively and broaden their understanding through supplementary information generated from classroom discussions. Additionally, learners develop the ability to evaluate ChatGPT's responses critically, guided by the instructor's supervision to ensure content accuracy, as the tool may occasionally produce unreliable or unverified information (Ricart, 2024; Xiao & Zhi, 2023). Regarding developing essay writing skills, ChatGPT provides feedback on content ideas, focusing on vocabulary and grammatical structure, and assisting learners in refining original essays by correcting grammatical errors, clarifying ambiguous sentences, and evaluating overall content quality (Tseng & Lin, 2024). This process enables learners to self-correct common mistakes by comparing drafts with ChatGPT-revised versions, thereby enhancing motivation to practice and improve Thai essay writing independently.

Learners' Awareness of Academic Integrity in Using ChatGPT for Learning

From a practical perspective, learners still require support and guidance from instructors when using ChatGPT. Learners need time to adapt to the new method, gain fluency in generating effective prompts, and develop the ability to evaluate the accuracy of ChatGPT's responses critically. Furthermore,

the learning process necessitates instructor supervision to ensure ethical use of ChatGPT and adherence to academic integrity. Cotton et al. (2023) suggest that instructors should implement new strategies to prevent learners from plagiarizing AI-generated text through ChatGPT. The results show that all participants demonstrated awareness of issues regarding academic integrity and ethical compliance. However, the results of plagiarism checks indicate that, in the absence of instructor guidance and supervision, rates of learners' non-compliance remain high. This underscores the crucial role of instructors in the education system.

However, instructors should be fully aware of the limitations of AI detection tools, which may produce false positives or inaccurate results (Črček & Patekar, 2023; Malik & Amjad, 2025). These tools were primarily developed to analyze English text, a widely spoken universal language. In contrast, the Thai language used in this study is relatively uncommon. Therefore, applying AI plagiarism detection criteria and results to conclude that learners of non-English languages have engaged in plagiarism requires careful consideration. Considering the AI plagiarism detection results of some learners from three tools, including GPTZero, ZeroGPT, and Copyleaks, indicates that GPTZero and Copyleaks detected plagiarism at rates of 96% to 100%. In contrast, ZeroGPT detected 0%, highlighting the unreliability of these results. Moreover, the consistent 100% detection by Copyleaks further raises questions regarding the accuracy of this tool. These findings align with the observations of Morsy et al. (2023) and Chaka (2024), who noted that AI detection tools exhibit varying performance levels.

The complete reliance on the results of these tools by instructors should be reconsidered, because tools designed to detect AI-generated text in widespread languages cannot be directly applied to less widespread languages. Therefore, instructors should employ multiple assessment methods and manual validation of learners' essays to more accurately assess their actual proficiency, because instructors are best positioned to understand learners' learning capabilities. Furthermore, instructors should enhance their capabilities in detecting AI-generated text or text containing AI elements, as users currently employ various strategies to conceal traces of AI-generated text. For instance, AI-generated text can be partially edited to appear human-written text, or several AI tools can be used to rephrase text, making it appear more "human-like" (Malik & Amjad, 2025).

Conclusion

This study aimed to find the strategies adopted by Vietnamese learners when practicing Thai essay writing independently before participating in the ChatGPT-integrated instructional method, evaluate the effectiveness of this instructional method, and explore learners' awareness of academic integrity when using AI tools. The findings indicated that, prior to receiving training in ChatGPT, learners often relied on tools such as ChatGPT or Google Translate alongside traditional essay writing strategies. Following training on the effective use of ChatGPT and participation in essay writing classes using this tool, learners exhibited positive attitudes, realizing that this instructional method helped them understand how to use ChatGPT without violating academic integrity. Moreover, it enhanced learner engagement, promoted the learning of academic knowledge, and provided a clear understanding of the step-by-step process for using this tool in essay writing.

However, the findings also indicate that instructors play an important role in providing guidance, supervision, and regulation of learners' use of ChatGPT to prevent overuse or overreliance on the tool. Furthermore, even when learners demonstrate sound awareness of academic integrity, this does not mean that they will abide by its principles. Therefore, it is essential to develop an instructional framework that includes explicit and concrete guidelines to address and prevent academic dishonesty.

Additionally, the study suggests that instructors should not rely solely on the results of AI detection tools, particularly in uncommon languages, as their accuracy may be limited. Instead, instructors should develop the ability to classify AI-generated text, alongside supplementary learning activities integrated into assessment systems, to assess learners' actual proficiency more objectively and comprehensively.

Study Limitations

The limitations of this study include the small sample size of only 20 participants, all of whom were Vietnamese learners, and data collected from a single university. In addition, there is currently no internationally standardized Thai language proficiency test available in Vietnam to accurately assess learners' language proficiency, and the relatively short intervention period was insufficient to achieve optimal results. Therefore, the findings of this study should be regarded as preliminary and used primarily as a reference for future research. Subsequent studies should involve larger sample sizes, include Thai language learners from language training institutions both inside and outside Vietnam, and extend the intervention period to one or two semesters to obtain more reliable and generalizable results.

Recommendations

Future studies may focus on developing assessment scales for learners' AI competence, such as prompt construction skill, the ability to evaluate the quality of AI-generated content, and the ability to adjust the level of AI intervention. In addition, monitoring the AI-assisted writing process at each stage may help clarify the boundary between learning support and academic dishonesty. For example, learners' perceptions of authorship when using AI and how they define own writing work before and after using AI. Furthermore, future studies can focus on learners' psychological experiences when using AI.

Acknowledgements

The authors would like to express their sincere gratitude to the Faculty of Liberal Arts, Prince of Songkla University, for providing the Tuition Fees Scholarship, and to the Graduate School, Prince of Songkla University, Thailand, for granting the Research Grant for Thesis (Fiscal Year 2025). The authors also wish to extend their appreciation to the Head of the Thai Language Department and the learners in the Thai Language Program at The University of Danang - University of Foreign Language Studies, Vietnam, for their valuable support and participation in this research. This study forms part of the master's thesis entitled "Thai essay writing of Vietnamese students and the application of ChatGPT".

Conflict of Interest

The authors declare that there is no conflict of interest.

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Appendix A

Learners' Strategies for Practicing Thai Essay Writing Independently

Sign	Items
A1	I usually search for more information on the topic from Google or other sources before writing my essay.
A2	I usually create an outline before starting to write my essay.
A3	I usually reread and review my essay before submitting it.
A4	I usually write my essay in Vietnamese and then use a translation tool to translate it into Thai.
A5	I often ask my Thai friends or acquaintances to help me edit my essay.
A6	I use ChatGPT or other AI tools to write my essay.
A7	I write my essay independently using other tools, such as online dictionaries or Google.
A8	I write my essay independently and then ask my instructor to provide feedback and corrections.
A9	After finishing my essay, I used Google Translate to check and correct grammar errors and adjust vocabulary as recommended.

Appendix B

Learners' Evaluations of the ChatGPT-Integrated Thai Essay Writing Instructional Method

Sign	Items
B1	It is well-suited to my self-study style.
B2	It helps me understand lessons faster and remember knowledge better.
B3	It helps me increase the amount of knowledge I can absorb in a lesson.
B4	It helps me develop critical thinking skills.
B5	It stimulates my thinking to create new knowledge from the knowledge and information I have previously acquired.
B6	It helps me improve my writing skills.
B7	It helps me practice using technology to support foreign language learning.
B8	It helps me understand how to use ChatGPT ethically.
B9	It helps me learn how to evaluate the quality of ChatGPT-generated text.
B10	It increases my interest in learning writing skills.

Appendix C

Learners' Awareness of Academic Integrity in Using ChatGPT for Learning

Sign	Items
C1	Do you think ethics is an important factor in writing?
C2	Do you know about plagiarism?
C3	Have you ever copied someone else's work?
C4	Have you ever used ChatGPT to write part or all of an essay?
C5	Do you know that plagiarism is a wrong behavior?
C6	Have you ever been caught using ChatGPT for your homework?
C7	Do you know how to properly use ChatGPT to avoid plagiarism?
C8	Do you think ChatGPT should be allowed for learning and research in educational institutions?
C9	Should the instructor allow and guide the learner on how to use ChatGPT?
C10	If your instructor forbids you from using ChatGPT, would you secretly use it?