



**EFL STUDENTS' PERCEPTIONS AND PRACTICES
OF USING CHATGPT FOR DEVELOPING ENGLISH
ARGUMENTATIVE ESSAY WRITING SKILLS**

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Abstract:

Amidst the rising importance of English as a Lingua Franca, this study is conducted with the aims of investigating EFL students' perceptions and practices regarding the use of ChatGPT for developing English argumentative essay writing skills, thereby bridging the gap in understanding the role of AI technologies in enhancing language learning outcomes. The study focused on eight (8) aspects for developing writing skills, including (1) Vocabulary, (2) Grammar, (3) Idea generation, (4) Organization, (5) Translation, (6) Writing style, (7) Plagiarism management, (8) Mechanics of writing, for which EFL students use ChatGPT to improve their English argumentative essay writing skills during the course Reading-Writing B2.2. A ninety-two-item questionnaire was administered to investigate the perceptions and practices of using ChatGPT to develop English argumentative essay writing skills. The study sample consists of 100 students who have taken the Reading-Writing B2.2 course. The findings revealed that students had a positive attitude toward the use of ChatGPT for their enhancement of writing argumentative English essays. They found a negative correlation between the extent of perception impacts on students' practices, meaning that when students' perception of using

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ChatGPT increases, their engagement tends to reduce. Moreover, the result showed that while practices vary significantly across groups, perceptions remain relatively consistent among students. The insights from this study stand to significantly advance our understanding of the role of AI tools like ChatGPT in enhancing English argumentative essay writing skills among EFL students. By uncovering students' perceptions and practices regarding the use of ChatGPT, this research offers valuable insights for educators. With a deeper understanding of student attitudes and behaviors, teachers can tailor their teaching approaches to better support learners, fostering more effective language learning environments.

Keywords: ChatGPT, English argumentative writing skills, EFL students, perceptions, practices, AI

1. Introduction

1.1. Background of the study

The increasing prevalence of English as a Lingua Franca has underscored the importance of effective language learning tools for English as a Foreign Language (EFL) learners worldwide (Gayed, 2022). Consequently, there has been a notable shift in language teaching methodologies towards incorporating artificial intelligence (AI) technologies to enhance learning outcomes (Nguyen, 2023). This shift is driven by the recognition of AI's potential to enrich language learning experiences by providing “*interactive and personalized support*” (Ngo, 2023). Among AI-driven tools, ChatGPT stands out for its ability to simulate human-like conversations and offer instant feedback, making it a promising tool for language learners.

Globally, numerous studies have explored the efficacy of Artificial Intelligence (AI) technologies in language learning, demonstrating their effectiveness across various areas such as vocabulary acquisition, grammar practice, and writing skills development (Raheem *et al.*, 2023; Basic *et al.*, 2023; Imran & Almusharra, 2023; Huang & Tan, 2023).

However, despite the growing body of research on AI technologies in language learning, there is a notable gap in understanding their role in developing argumentative writing skills among EFL students. Argumentative writing is a multifaceted task that demands not only language proficiency but also critical thinking, logical reasoning, and rhetorical awareness (Dang *et al.*, 2020). While existing studies have explored technology-enhanced writing instruction, such as peer feedback platforms and automated writing evaluation systems, the unique potential of AI technologies like ChatGPT in supporting argumentative writing remains underexplored.

In Vietnam, where English language proficiency is increasingly emphasized in educational and professional contexts, the exploration of ChatGPT for developing argumentative writing skills holds particular relevance. Vietnam's education system is undergoing rapid modernization with an emphasis on communicative competence and critical thinking. The emergence of ChatGPT was quickly adopted by a majority of

English language learners and instructors for several specific purposes, including writing. Similar to the international context, there exists in Vietnam a limited source of literature to provide valuable insights into how this AI Chatbot is perceived and utilized for writing a specific type of essay, namely argumentative, thereby bringing about a limited provision of gaining opportunities to approach new methods for language learning and instructing.

In light of these considerations, this study aims to bridge the gap in the literature by investigating EFL students' perceptions and practices regarding the use of ChatGPT for developing English argumentative essay writing skills. By examining students' attitudes towards ChatGPT and their experiences with the tool in argumentative writing tasks, this research seeks to uncover the potential benefits of integrating ChatGPT into EFL writing instruction. Additionally, by drawing on relevant studies in the field of language learning and technology, this study aims to contribute to a deeper understanding of the role of AI technologies in enhancing language learning outcomes and informing pedagogical practices in EFL contexts.

1.2. Research aims

The present study aimed to investigate EFL students' perceptions of using ChatGPT to develop their English argumentative essay writing skills. Simultaneously, the study was also conducted to assess the extent of EFL students' practice of ChatGPT in developing their English argumentative essay writing skills.

1.3. Research questions

The study was conducted to answer the following questions:

- 1) What are EFL students' perceptions of using ChatGPT to develop their English argumentative essay writing skills?
- 2) To what extent do EFL students practice using ChatGPT to develop their English argumentative essay writing skills?

1.4. Significance of the study

The findings from the study hold significant information contributing to the literature in the field of using ChatGPT for developing English argumentative essay writing skills in particular and language learning in general. Specifically, the study hopes to gain a better understanding of the perceptions and the extent of the practice of using ChatGPT to develop EFL students' argumentative writing skills. In addition, by investigating both the perceived impact and actual utilization of ChatGPT, the research aims to provide valuable insights into the effectiveness and feasibility of integrating AI technologies into EFL writing instruction, thereby developing more concrete and effective instructional practices and environments facilitating the students' English learning.

2. Literature review

2.1. Theoretical framework of English argumentative essay writing

2.1.1. Definitions of an essay

An essay is a written composition that provides and defends an argument or perspective on a specific subject (Singh, 2022). The course primarily examines the composition of argumentative essays, which need students to express their viewpoints, substantiate their assertions with evidence, and use critical thinking to convince the reader of their standpoint.

As Langley (2009) stated, an essay is a relatively short piece of nonfiction that tries to make an interesting point (Langley, 2009). More specifically, Langan (2008) explained further that an essay is a relatively short piece of nonfiction in which a writer attempts to develop one or more closely related points or ideas. Similarly, Fournier Paul (1955) suggested that an essay is a short writing on a particular subject.

From a more educational-specific perspective, Susanto Leo (2007) described an essay as a work of writing by a student as part of a course of study. According to Shermis and Burstein (2013), essay writing is an essential ability that entails crafting logical and well-organized written replies to questions or themes. Meanwhile, some researchers put more weight on the structure when they perceive the definition of an essay. Generally, an essay is characterized by its structured format. According to Langan (2004), there are three parts to an English standard college essay: (1) Introductory paragraph, (2) Body with supporting paragraphs, and (3) Conclusion. It typically includes an introduction, body paragraphs, and a conclusion, where ideas are logically presented and supported with evidence and examples. Oshima and Hogue (2006) stated an essay is a piece of writing several paragraphs long. According to Noguchi (1991, p.4), an essay is "*a piece of writing that is organized, coherent, and unified in its purpose.*"

2.1.2. Definition of essay writing

To learn English systematically, English as a Foreign Language (EFL) learners need to know the primary language learning skills, including listening, speaking, reading, and writing. Writing, a productive skill, is one of four skills of English that should be mastered well in school, university, or any other parts of writing needed (Sa'adah, 2020). For English learners, learning writing skills is a necessity because proficiency in English communication abilities, particularly in writing, is shown as an essential determinant of success in exams, recruitment tests, and general social standing (Dastgeer, Afzal, & Atta, 2021). Essay writing is crucial in language proficiency and educational programs, underscoring its significance in assessing students' linguistic aptitude and analytical thinking ability.

According to Richards and Renandya (2002), writing is considered the most challenging of the four language skills for second-language learners. Andrade and Evans (2013) recognized writing as an ongoing and ever-evolving activity only partially

completed. Many studies explore the belief that writing is the key to achieving mastery of linguistic skills (Yusuf *et al.*, 2019), especially in EFL education.

Hence, writing an essay in English refers to composing a concise division of nonfiction in English that aims to convey an engaging point or explore related ideas within the context of academic study and involves structuring the essay into paragraphs, including an introduction, body sections, and a conclusion, while maintaining coherence, clarity, and logical presentation of ideas, all in the English language.

According to the purposes, writing English essays can be categorized into various types. Colonna and Gilbert (2006) defined five distinctive kinds of essays that are introduced to EFL students, namely (1) descriptive, (2) classification essay, (3) cause and effect essay, (4) comparison and contrast essay, and (5) argumentative essay. Among these aforementioned types, argumentative writing is widely recognized as an essential aspect of academic literacy (Zhu, 2001). The next section will explain argumentative essays in the educational context.

2.1.3. Definition of English argumentative essay writing

The 'argumentative essay' is the most common genre that undergraduate students have to write (Wu, 2006: 330). Therefore, "*argumentative writing is an essential skill for individuals to succeed in both academic and professional contexts*" (Mitchell, 2000). Such essays empower students' ability to give an argument and build confidence in their knowledge, preparing them not only for the academic environment but also for real-life situations (Valero Haro, Noroozi, Biemans, & Mulder, 2022; Heitmann, Hecht, Schwanewedel, & Schipolowski, 2014). Regarding definition, argumentative writing involves formulating a clear and logically sound claim supported by evidence and reasoning to persuade others to accept one's position on a topic. According to Oshima and Hogue (2006), an argumentative essay is an essay in which writers agree or disagree with a particular issue and use evidence to strengthen and support their opinions. Additionally, argumentative writing is a process of making claims and then supporting those claims using evidence and reasoning (Ferretti *et al.*, 2009)

The purpose of creating an argumentative essay is to provide a compelling case in favor of a claim, which involves gathering evidence from many sources that are logically tied to the claim, employing warrants to establish the relationship between the claim and the supporting evidence, and providing further support for these warrants (Campbell and Filimon, 2018). Moreover, writing an argumentative essay aims to present a persuasive argument on a contentious topic or problem in order to persuade readers to adopt or support the writer's perspective (Dang *et al.*, 2020). To achieve the goal of argumentative writing, the writer takes a position or makes a claim (thesis), provides reasons and evidence to support his claim/point of view or position with logical arguments, and refutes possible counterarguments. Ultimately, an argumentative essay aims to convince the readers to agree with the writer's opinion. Therefore, students are expected to be able to make a clear idea from the beginning until the end since it deals with persuading the readers.

2.1.4. Aspects for developing English argumentative essays

Taking challenges into consideration when writing an argumentative essay, writing an argumentative essay is more arduous due to the higher cognitive demands of constructing an argument compared to crafting a narrative. (Crowhurst, 1990). Students may lack the ability to establish arguments, provide supporting evidence, and reason logically, leading to difficulties when writing an argumentative essay (Campbell and Filimon, 2018). Therefore, students, especially university students whose training programs include compulsory subjects requiring English argumentative essays, may need knowledge and ability to excel in their studies by developing their English argumentative writing skills.

According to Richards and Renandya (2002), writing is a challenging ability for second language (L2) learners as it requires them to produce, arrange, and transform thoughts into coherent and comprehensible prose, posing significant difficulty for pupils. Hanafi (2017) added, in order to possess proficient English writing abilities, students must acquire a comprehensive understanding of several language elements, including an extensive lexicon, grammatical principles, punctuation conventions, and appropriate word selection. In addition to the aforementioned skills, individuals must be able to generate ideas and effectively structure them to produce well-organized written content. Rao (2017) explained in his research paper that writing also contains layout, spelling, punctuation, grammar, the selection of vocabulary, the organization of sentences and paragraphs, and the modification of writing styles in terms of genre. Mastering writing is a challenging task, which takes support from many elements to make it work (Sari & Agustina, 2022). In particular, writing an argumentative essay is one of the most common assignments in the university and is considered a big challenge for students. Most students need help with various difficulties in writing argumentative essays. There is a widely used writing rating scale that was first proposed by Jacob *et al.* (1981) and in 1991 was modified by Hedgcock and Lefkowitz, which combines different aspects of writing to be examined. Developing an essay, especially argumentative writing, should be considered from multiple aspects. Therefore, based on previous studies' literature, the following sections will present aspects for development in writing an argumentative essay.

2.1.4.1. Vocabulary

Vocabulary plays a crucial role in developing the quality of writing argumentative essays by enhancing the clarity, persuasiveness, and overall quality of the written work. Acquiring a robust vocabulary is crucial for English language learners to improve their linguistic competence and showcase their expertise in the English language via academic writing, particularly in argumentative compositions (Akinwamide, 2012). Extensive and diverse vocabulary is vital for effectively communicating complex ideas and captivating readers, enabling authors to articulate their thoughts with clarity and efficacy (Weigle, 2013). Understanding and utilizing a broad vocabulary is indispensable in mastering language skills, as it significantly aids comprehension of written and spoken texts.

However, acquiring vocabulary includes grasping word meanings and comprehending their usage and relevance across various contexts. Strakey (2004) synthesized that choosing the right words in an essay is one of the best ways to convey ideas accurately. For the proposed reasons, EFL students can undoubtedly develop their argumentative essays by developing their vocabulary.

2.1.4.2. Grammar

According to Farooq *et al.* (2012), grammar is the most challenging part for second-language writers, meaning that students learning to master English struggle with grammar. Philips (1979) added that good grammar will help students produce a high-quality essay. Dang *et al.* (2020) stated that students with essential knowledge of grammar will quickly know how to create grammatically correct sentences using different and appropriate structures, meaning that to develop grammar competence, students should be able to consider multiple aspects of the term grammar. The scale composed by Jacob *et al.* (1981) reveals that grammar implemented in an essay is examined in two main elements, which are (1) the proficiency in sentence forms and constructions, and (2) the precision and correctness in the usage of agreement, number, tense, word order, articles, pronouns, prepositions, and negation. To enhance the clarity and coherence of their written material, students must improve their grammatical proficiency while composing argumentative essays.

2.1.4.3. Idea generation

The content of an essay is of utmost importance as it encompasses the author's thoughts and views (Oktavianti *et al.*, 2021). To produce convincing content for an argumentative essay, one must master the ability to generate and develop ideas (Dang *et al.*, 2020). Through investing in developing and generating high-quality ideas, students can explore their thoughts, engage in critical thinking, and express themselves creatively. Jacob *et al.* (1981) suggested that the content-producing ability, also known as the ability to generate and develop ideas, would depend significantly on the knowledge of the subject, the development of the thesis, the coverage of the topic, the relevance of the details, substance, quantity of more information.

Harris *et al.* (2014), underscored that students find it challenging to generate their ideas. Acknowledging that students may face different problems when developing and creating ideas is crucial, including difficulty in brainstorming, organizing thoughts, generating unique ideas, and preserving coherence in writing. Richards and Renandya (2002) explained further that writing is difficult for students because they need to develop their ability to generate concepts, arrange them systematically, and convert them into coherent written content. The author pointed out that the difficulty of writing is not only about how ideas are developed but also their ideas should be understandable. Thus, the content quality of the whole essay depends on how well the writer can generate and develop their ideas.

2.1.4.4. Organization

According to Bean and Johnson (2007), argumentative writing is undeniably a very complex form of writing, which requires complicated organizing skills from students. Tiryaki (2011) showed that the low quality of argumentation in argumentative essays must be balanced with the low understanding of the essay structure and the sharpness of the argument. Meaning that a logical arrangement and connection of ideas would help readers understand and follow the ideas stated in a written work easily (Oshima & Hogue, 2006), allowing students to present their arguments systematically and generate a logical frame for their viewpoints. Hence, an argumentative essay requires a strong connection between several elements, such as claims, reasons, examples or evidence, which can be helpful and valuable for the readers to clarify the argument and integrate their opinions.

If the ideas go here and there with no focus, the argumentative writing piece gets undirected, fostering readers to be challenged to understand our ideas (Dang, 2020). All in all, different details, such as outlining, fluency of expression, clarity in the statement of ideas, support, sequencing of ideas, cohesion, coherence, and unity of ideas, should be strictly considered when developing the organizing skills of EFL students in developing their argumentative essays.

2.1.4.5. Mechanics of writing

According to the writing rating scale by Jacob *et al.* (1981), writing mechanics include the norms of spelling, punctuation, capitalization, paragraph indentation, and other related aspects. To successfully learn the learners' mother tongue or any other language, the learners should know the format or the layout. Akinwamide (2012) highlighted the significance of acquiring expertise in mechanics throughout the writing process by mentioning the importance of proficiency in punctuation, spelling, sentence structure, vocabulary, and the development of ideas. By focusing on these techniques, students may improve the clarity, coherence, and grammatical accuracy of their writing. As a result of wrong punctuation, the entire sentence's meaning changes, sometimes leading to ambiguity (Rao, 2017). The field of writing mechanics, particularly in composing argumentative essays, emphasizes the significance of accuracy, correctness, and exactitude in language creation. Therefore, writing mechanics, which refers to the use of punctuation, capitalization, and typographical mistakes, should be paid as much attention to as other aspects (Oktavianti *et al.*, 2021). By monitoring and enhancing mechanical elements in writing, learners may amplify their written works' overall lucidity and influence.

2.1.4.6. Translation

As Hanafi (2017) defined it, translation is the rendering process of one language into another. Translation, in the educational aspects, relates to syntactic structures, vocabulary learning, raising interlingual and intercultural awareness, developing communicative competence and language learning strategies, and enhancing pragmatic

skills (Druce, 2012). This activity is intended to give imagery and an example of how English sentences should be constructed, the idea should be expressed, and how the paragraph should be developed.

However, Wang and Wen (2002) proposed that L2 writers get stuck when writing in the target language because their mother tongue majorly affects the use of the second language; they may combine the systems of the two languages in their L2 writing, which is called "*language transfer*". The effect of the mother tongue on English writing is one of the obstacles for students (Dang *et al.*, 2020). The main challenge that students have when trying to write in their second language is the lack of clarity about the connection between the usage of their first language and the various cognitive processes involved in second language writing, such as planning and developing ideas (Ismail, & Alsheikh, 2012). Thus, students often make vocabulary, grammar structure, and word order mistakes when writing. It can be seen that to have a better piece of writing, it is a must for students to improve their translation skills.

2.1.4.7. Writing style

One critical issue that helps English learners develop their writing skills is genre, which signifies the standards of various types of writing. Genre helps readers recognize the kind of text, whether scientific text, advertisement, biography, romantic fiction, formal letter, or poetry (Rao, 2017). The research conducted by Andrade & Evans (2012) emphasizes the significance of acknowledging writing styles as dynamic and developing entities that can be molded and improved via self-monitoring, reflection, and strategic revision. By seeing the possibility of progress and adopting a growth perspective toward writing styles, learners may boost their overall writing ability and effectiveness. Most college students encounter difficulty collecting the appropriate writing style in writing tasks, such as essays (Ariyanti, 2016). Therefore, argumentative essay writer ought to determine the suitable writing style for their argumentative essay to fit in the genre, particularly the context, tone, mood, and formality of an argumentative essay, and raise overall academic features. Through comprehension and the use of many writing styles, students may enhance the quality and influence of their written compositions, especially argumentative essays.

2.1.4.8. Plagiarism management

Plagiarism is a serious problem as Shahabuddin (2009) stated plagiarism has the potential to create "legal" and "ethical" problems where the action of copying another person's idea without citing can have serious consequences. According to Bailey (2006: 7), several actions are considered to be plagiarism, such as not giving references, or directly copying ideas from another's work. To solve that, Colonna and Gilbert (2006: 81) state that to prevent plagiarism, ensure that any content in your essay is paraphrased using your own language. To utilize someone else's precise words, it is imperative to enclose the quote inside quotation marks and include a citation for the source. It can be understood that, if students want to avoid plagiarism, they must either put the idea they collect into

quotation marks or paraphrase it. Moreover, Ariyanti (2016) suggests writers learn about ethical writing practices and ways to detect and avoid plagiarism. By integrating components of the essay paradigm, learners of a second language may effectively navigate the intricacies of writing tasks. This approach promotes a more profound comprehension of the task requirements and facilitates the creation of cohesive and well-organized essays. Therefore, in the process of writing an argumentative essay, one cannot ignore plagiarism management to excel.

2.2. Technology in writing

2.2.1. Technology and its application in language education

2.2.1.1. Definition of technology and its application in language education

Various scholars have provided definitions for technology. Undoubtedly, the utilization of technology has been seeing a significant surge in tandem with the swift progress of the contemporary globe. According to Alhumaid (2019), technology has had a lasting influence on all aspects of human activities in modern times. Technology encompasses not just computer hardware and instruments but also encompasses organized interactions with other individuals, machines, and the environment (İşman, 2012). In the field of education, technology is the utilization of machinery and instructional apparatus of various kinds (such as language laboratories, tape recorders, video, etc.) to support teachers and learners (Richards and Schmidt, 2010). Technology in language learning refers to the use of different technical tools and apps to improve the process of teaching and learning languages (Cai & Liu, 2022).

2.2.1.2. The application of technology in language education

As stated by Nguyen (2023), the use of technology in language education has grown significantly in recent years, with a range of tools and platforms available to support teaching and learning, including language learning software, online dictionaries and translation tools, and language learning apps. In current years, the emergence of a new technology, Artificial Intelligence, has been proven to be experiencing a profound and transformative impact across a wide range of industries (Raheem *et al.*, 2023) and is commonly utilized in many educational environments (Nguyen, 2023). A similar scenario occurs throughout the realm of education as a whole, with language instruction being a notable example. Upon that, Ahmadi (2018) proposed that technology has consistently played a crucial role in the educational setting. There is little doubt that throughout the last century, technological advancements have revolutionized the methods used for language learning and teaching (Nguyen, 2021).

2.2.2. Technological tools for writing an essay

2.2.2.1. Artificial Intelligence (AI)

In today's world, there is a growing need for more processing capacity in mobile applications used for language teaching. Specifically, Artificial Intelligence (AI) has made significant advancements in language instruction, resulting in the creation of advanced

language models and tools. AI-powered systems have achieved remarkable accuracy and efficiency in tasks such as language translation, sentiment analysis, text summarization, and voice recognition (Raheem *et al.*, 2023). Moreover, language processing tools driven by artificial intelligence have been widely used in educational environments, particularly in the context of English academic writing. According to Fitria (2023), Artificial Intelligence is a computer science discipline that has emerged due to technological advancements. It focuses on addressing cognitive issues that are often associated with human intelligence, such as learning, problem-solving, and pattern recognition. Pikhart (2020) provided a definition of artificial intelligence in language learning as the use of sophisticated technologies like machine learning, deep learning, and other AI methodologies in mobile language learning applications. According to Malik, Pratiwi, Andajani, Numertayasa, Suharti, and Darwis (2023), AI is essentially a combination of technology that allows robots to imitate cognitive processes related to human brains, such as learning and problem-solving. Amyatun and Kholis (2023) defined AI as a technique that seeks to incorporate human-like cognitive and problem-solving skills into robots.

AI is a rapidly developing technology that is expected to have a transformative impact on several aspects of life, such as education and language acquisition. The impact of AI on the process of acquiring language has been extensively studied and researched (Nguyen, 2023). Consequently, several academics have previously elucidated the definition of AI and its impact on the language acquisition process, particularly in the context of learning English.

2.2.2.2. Chatbot

In recent years, the use of AI has been growing in various industries, and Chatbot technology has become indispensable (Luo, Tong, Fang, & Qu, 2019).

Chatbots, also known as artificially intelligent conversational tools, are the latest technologies designed to enhance communication between people and computers (Nghii, Phuc, & Thang, 2019). Ashfaque (2020) defined a chatbot as a computer program that imitates human-like conversations with humans via text and/or speech, hence simulating human-computer interaction. According to Clarizia, Colace, Lombardi, Pascale, and Santaniello (2018), chatbots are recognized as valuable tools for improving students' learning experiences. Recently, several chatbots have become valuable resources for students, aiding them in language acquisition and enhancing their writing abilities with the advanced assistance of artificial intelligence.

A substantial body of research has shown that chatbots are advantageous for pupils in enhancing their language acquisition. Fryer and Carpenter (2006) highlighted the six distinct benefits of chatbots as language learning tools. These advantages encompass the creation of a relaxed learning environment, heightened student motivation, access to diverse learning resources, immediate and effective feedback on spelling and grammar, facilitation of reading and listening practice, and the provision of patient conversation partners. Shawar (2017) supported this by noting that the use of

chatbots in language learning may enhance students' enjoyment, reduce language anxiety, and provide many opportunities for practicing and using multimodal aspects. Shin, Kim, Lee, and Yang (2021) discovered that chatbots have significant promise as effective discussion partners to enhance student engagement and provide meaningful learning opportunities.

According to Raheem (2018), the use of Artificial Intelligence in academic writing has fundamentally transformed the way students, researchers, and instructors approach different writing assignments. AI-driven tools and chatbots have become essential resources that provide immediate support, feedback, and language improvement alternatives, therefore enhancing the quality and efficiency of academic writing.

2.2.3. ChatGPT and its capabilities

2.2.3.1. Definition of ChatGPT

ChatGPT is a sophisticated conversational AI chatbot created by OpenAI in late 2022. It is built on the Generative Pre-Trained Transformer (GPT-3) framework. ChatGPT, an advanced language model, has gained considerable recognition in the domains of natural language processing and artificial intelligence. It has brought about a revolutionary change in the way AI systems comprehend and produce human language (Radford, Narasimhan, Salimans & Sutskever, 2018; Ngo, 2023; Raheem, 2023). Ngo (2023) proposed that ChatGPT is designed to generate text that closely resembles human language, in response to particular prompts or dialogues, facilitating organic and unrestricted interactions. ChatGPT is the leading natural language processing model known for its ability to generate responses that resemble a human-like conversation. It focuses on providing personalized and interactive support.

ChatGPT acquires a comprehensive understanding of natural language through rigorous training on many textual sources, including books, papers, and websites. Cooper (2021) states that GPT-3, with its impressive 175 billion training parameters, is the most extensive language model that can proficiently handle various tasks. Therefore, it may generate responses that are not only suitable for the situation but also in line with the cues provided by the user (Radford *et al.*, 2018).

ChatGPT has had exponential growth since its official introduction on November 30, 2022, making it a groundbreaking user application. In only two months, ChatGPT attracted a remarkable user base of 100 million active users by January 2023. The remarkable increase in user adoption underscores the substantial influence and universal approval of ChatGPT (Ngo, 2023).

2.2.3.2. Features and capabilities of ChatGPT in language education

Similar to previous technological advancements, ChatGPT motivates language instructors and researchers to use advanced technology to streamline, improve, and optimize the process of learning second and foreign languages (Davies, Otto, Ruschoff, 2013; Yi, Cho, & Jang, 2022). ChatGPT can serve as a valuable tool for academic support (Basic *et al.*, 2023).

Various academic studies have looked at the potential benefits of ChatGPT in the realm of language acquisition. Shahriar and Hayawi (2023) proposed that the ability of ChatGPT to produce and mimic human-like text with a vast range of vocabulary makes it a valuable tool for language teaching and learning. Research about the features of ChatGPT in classroom settings conducted by Baskara (2023) suggested that ChatGPT has the potential to provide personalized feedback and support, engage, and motivate learners, and support language skills development. In the aspect of comprehending language, Liebrecht, Schleifer, Buadze, Bhugra, and Smith (2023) suggested that ChatGPT can receive and produce copy in multiple languages, which helps to break down the language barrier. Moreover, A. S. George and A. S. H. George (2023), claimed that ChatGPT “*could be used to develop interactive conversational agents that duplicate authentic dialogues*”, which helps in developing communication skills like speaking. Regarding one of the four language skills, Kasneci *et al.* (2023) highlighted ChatGPT's usefulness in assisting university students with research and writing assignments, as well as the development of their critical thinking and problem-solving skills. Supporting this, Baidoo-Anu & Owusu (2023) claimed that ChatGPT may also give feedback on students' work, helping them to improve their writing abilities. An implementation from the study of Fitria (2023) about ChatGPT is that it is capable of helping students conquer various difficult grammar knowledge.

As aforementioned, ChatGPT's versatility and applicability have led to its widespread adoption in various domains, and most importantly, it is writing assistance. Its ability to assist with text generation, content suggestions, and even conversation simulations has made it an invaluable tool for writers, students, and professionals seeking AI-powered language support (Raheem *et al.*, 2023).

2.2.3.3. The potentials of ChatGPT in writing improvement

Bin-Hady, Al-Kadi, Hazaea, and Ali (2023) emphasised the capabilities of ChatGPT in enhancing writing proficiency via the provision of conversation prompts, precise grammatical corrections, and support for vocabulary and pronunciation practice. The emergence of ChatGPT as a tool for language education represents a potentially transformative development in the field of language education. Among different facets of language education, the most impressive role of ChatGPT, according to Imran and Almusharraf (2023), is showcased through its usage as a writing tool and writing assistant. The potential benefits of using ChatGPT in EFL writing instruction are numerous and varied and can support teaching and learning in several ways (Baskara, 2023). Academic and scientific discussions globally show that ChatGPT can play a very significant role in writing assistance in accomplishing writing tasks in a versatile way (Sallam, 2023). ChatGPT has the capacity to aid learners in enhancing their language proficiency, encompassing writing abilities and vocabulary acquisition. Additionally, it offers personalized practice resources and explanations, recommends suitable essay structures and topics, and provides illustrative examples to bolster their arguments. The study of literature published on ChatGPT's role in writing tasks can be summarized as

ChatGPT is a complete package from ideas generation to final proofreading and editing of writing material. For more ChatGPT's writing functions, the following points are summarized from the selected published articles. These points would help in understanding its use in writing as an assistant and AI tool.

A. Enhancing vocabulary

One difficulty that most English learners encounter is the lack of vocabulary knowledge and inappropriate lexical choice. Acquiring vocabulary entails not just understanding the definitions of new words, but also comprehending their functions and how they might be applied in various contexts and situations (Dang *et al.*, 2020). However, ChatGPT can suggest appropriate vocabulary choices and can provide synonyms and alternatives for words, which can help non-native English speakers find the best words to express their ideas, as Huang and Tan claimed (2023). ChatGPT facilitates language acquisition by emulating genuine interactions. The system has the ability to determine the significance of a word within a given context, rectify and elucidate language errors, generate texts across different genres such as emails, tales, and recipes, construct quizzes, provide annotations for texts, as well as provide dictionary definitions, sample sentences, and translations (Kohnke *et al.*, 2023). Moreover, as language learners receive real-time responses from ChatGPT (Raheem *et al.*, 2023), they collect different forms of new words from the chatbot regarding the writing content. Another support from ChatGPT includes explaining the meaning and usage of a specific vocabulary (Nguyen, 2023). ChatGPT may enhance vocabulary acquisition by offering precise definitions from dictionaries, giving illustrative phrases, and facilitating translations. Additionally, it can assist in creating vocabulary notes in both the target language and the user's main language. Therefore, contributing to the development of learners' vocabulary.

B. Improving grammar

Grammar plays an indispensable role for students in learning foreign languages as well as in writing subjects. A certain number of researchers have concluded that ChatGPT is a helpful tool for students to develop their grammar in writing. Students may get feedback on their grammar use and sentence structures by engaging with ChatGPT and producing content. By engaging in this interactive process, students may effectively detect and rectify grammatical problems, resulting in improved grammar abilities and writing competency (Zirar, 2023). ChatGPT may function as a great instrument for students to enhance and perfect their grammar abilities by providing immediate feedback and advice. Wang and Guo (2023) discuss ChatGPT supporting students with learning not only vocabulary but also grammar. According to Basic *et al.* (2023), one of the features that ChatGPT provides is that it can improve one's writing as it is trained to deliver feedback on grammar. ChatGPT has the potential to help students improve their grammar skills by providing access to grammar materials on various topics such as tenses, active and passive sentences, gerunds, infinitives, and more. To add up, Nguyen (2023) suggested that ChatGPT can provide such examples of correct grammar and

syntax, and effectively offer guidance on structuring sentences and paragraphs. In line with that, Imran and Almusharra (2023) listed ChatGPT's feature of collaboration, which means editing student writing by suggesting corrections for grammar, syntax, and spelling errors, as an important support for students in learning writing. Huang and Tan (2023) added that ChatGPT can provide suggestions for correct grammar and sentence structure, which can be particularly helpful for non-native English speakers who may struggle with these aspects of writing in English. For example, ChatGPT can identify and highlight grammatical errors, ambiguous sentence structures, or repetitive phrases. Clearly, ChatGPT has the capability to provide resources such as linguistic structures and grammatical rules to facilitate the acquisition of different languages.

C. Generating and developing ideas

Like earlier AI chatbots, ChatGPT can be used for generating ideas and brainstorming (Lingard, 2023). Nugroho, Putro, and Syamsi (2023) asserted that ChatGPT has the capacity to aid in the process of idea generation and the creation of imaginative material, namely in the realm of literary works such as poems, short tales, and essays. This is particularly one of the most outstanding features of ChatGPT when mentioning its support for writing because one of the major challenges in academic writing is generating ideas and organizing thoughts effectively. In that context, ChatGPT serves as an invaluable writing assistant by offering prompt responses and assisting in brainstorming sessions. Researchers and students can interact with the model, present their ideas, and receive contextually relevant suggestions to expand upon their topics (Bhatia, 2023). This real-time collaboration aids in overcoming writer's block and fosters creativity during the initial stages of writing. Specifically, Imran and Almusharra (2023) found out that ChatGPT can help students generate new ideas for their writing assignments by suggesting topics, themes, and perspectives that they might not have considered otherwise.

D. Assisting with organization

Nugroho *et al.* (2023) ChatGPT may aid students with essay organization by offering assistance in arranging their thoughts, generating outlines, and proposing logical connections between paragraphs. ChatGPT may assist individuals in producing outlines for their writing assignments, particularly when they have difficulties in organizing their ideas or structuring their writings. It is recognized that the organization of a piece of writing, an argumentative essay for instance, acts as a flow for the reader to follow and process the information comprehensively. Raheem *et al.* (2023) discovered that ChatGPT can also be utilized to draft sections of academic papers and outline the structure of the content. Students can generate outlines to organize their essays or research papers, thereby creating a clear and precise order for ideas in a text. With that being said, the model helps users lay a strong foundation for their writing (Rahman & Watanobe, 2023). Moreover, Mahapatra (2024) found out that ChatGPT is capable of not only producing high-quality texts but also offering feedback on text organization. Besides, Fitria (2023)

emphasized the ability of ChatGPT to logically organize content and add appropriate supporting details for a better structure of a piece of writing. According to Nguyen (2023), utilizing a large language model teaches them how to structure their thoughts for writing. The functionality of ChatGPT might be quite beneficial for students who are looking for assistance in properly organizing their written tasks.

E. Developing mechanics of writing

ChatGPT may assist in producing articulate and logically organized content, aiding students in enhancing their writing mechanics, including the aspects of organization, coherence, and clarity (Zirar, 2023). Through engagement with ChatGPT, students may get instruction on efficiently organizing their writing, resulting in improved writing proficiency and the capacity to express ideas with more clarity and brevity. It is clear that mistakes and errors related to the mechanics of writing sometimes prevent students from achieving a high band score in writing assignments, be it spelling errors, capitalization, or punctuation. As an artificial tool, the ability to proofread and edit from ChatGPT can support students in writing by suggesting corrections for grammar, syntax, and spelling errors. This can help students improve the quality of their writing and reduce errors. Similarly, Raheem *et al.* (2023) suggested that the model can assist in language editing and proofreading, helping users refine their written work and improve its overall quality. Buruk (2023), revealed that ChatGPT makes the author become less preoccupied with the mechanics of writing and more focused on accurately conveying ideas with its help.

F. Providing translation

Not every language learner is proficient enough to have a perfect presentation of the ideas from their mother tongue to the target language. Therefore, there exists a difficulty for learners, in this context, English learners in writing essays using their own language properties. ChatGPT may aid students in translating text between different languages, making it easier for multilingual students or those completing tasks in a non-native language (Zirar, 2023). With the help of ChatGPT, students are able to transfer these ideas into another language much easier and faster. Imran and Almusharraf (2023) claimed that ChatGPT can translate text from one language to another, which can be useful for students who are writing papers in a language that is not their native tongue. This can help students ensure that their writing is accurate and grammatically correct. Huang and Tan (2023), suggested that ChatGPT can also be trained on text in languages other than English, which can be helpful for non-native English speakers who are writing in their native language. The model can assist in translating text from one language to another, providing suggestions for sentence structure and vocabulary in the target language. Raheem *et al.* (2023) considered ChatGPT as an effective tool for Language Translation. Specifically, ChatGPT offers language translation capabilities for international students, allowing them to receive prompt translations of text passages or academic papers. By using ChatGPT for translation jobs, students may overcome language obstacles and guarantee that their thoughts are efficiently conveyed in the intended language, so

improving their capacity to generate exceptional essays in diverse linguistic environments.

G. Modifying writing style

Appropriate academic language and style are essential in scholarly writing, according to Raheem *et al.* (2023). ChatGPT has the potential to aid learners in enhancing their writing styles by offering guidance on multiple aspects of essay writing, including organization, coherence, and argumentation (Xiao & Zhi, 2023). It achieves this by integrating text revision, structural and content suggestions, and providing examples to support arguments. With the ability to enhance student's academic language and style, ChatGPT's vast knowledge of academic texts enables it to suggest phrases, terminology, and academic and appropriate style consistent with the conventions of academic discourse, thereby enhancing the written work's overall quality. (Azaria, 2023). It can help users improve the formality and clarity of their writing, ensuring the accurate presentation of ideas. Moreover, students are able to also review the suggested changes and make any necessary adjustments to ensure that the changes fit with their intended writing style and tone (Huang & Tan, 2023). Besides, it can help us to keep a more balanced perspective as ChatGPT is not personally biased and can thus provide diverse perspectives on a given topic. Users can receive feedback on sentence structure, phrasing, and vocabulary to ensure clarity and precision in their academic writing (Huang & Tan, 2023). This feature mainly benefits non-native English speakers and students seeking to improve their language proficiency in academic settings.

H. Managing plagiarism

Bin-Hady *et al.* (2023) explore the capacity of ChatGPT to aid in the control of plagiarism during essay writing. ChatGPT may be used to produce authentic material and provide students with distinctive viewpoints and concepts, hence reducing the probability of inadvertent plagiarism. Utilizing ChatGPT for text generation enables students to improve their writing proficiency while circumventing concerns associated with plagiarism. Moreover, ChatGPT may function as a tool to facilitate the cultivation of students' independent thoughts and ideas, hence fostering academic integrity and ethical writing practices. On the other hand, plagiarism among students stated as a serious problem by Shahabuddin (2009), can be overcome with the potential help of ChatGPT. There exist many ways that an English learner, or a language learner in general, commits plagiarism without actually recognizing that. In this context, ChatGPT can help us to do plagiarism detection. AI tools like this advanced chatbot have been utilized to assist with detecting plagiarism by checking the similarity of the text with existing, published sources, helping to ensure that the manuscript is original and not copied from others' work (Huang & Tan, 2023). According to Jarrah, Wardat, and Fidalgo (2023), since citations and referencing are critical components of academic integrity, ChatGPT can aid in this process by providing guidance on proper citation formats and generating reference entries for various citation styles. This feature proves particularly useful when

writing academic papers that require meticulous adherence to citation rules. (Huang & Tan, 2023).

As argumentative essays are one of the most advanced students' tasks in higher education, and as such pose a challenge for students (Latifi, Noroozi, & Talaei, 2021), one of the ways where ChatGPT could be tested is essay writing. Such essays empower students' ability to give an argument and build confidence in their knowledge preparing them not only for the academic environment but also for real-life situations (Valero Haro *et al.*, 2022; Heitmann *et al.*, 2014). Moreover, the integration of AI technologies like ChatGPT encourages interdisciplinary exploration and collaboration, as students leverage diverse perspectives and knowledge domains to enhance their understanding of complex topics and refine their arguments. As students engage with ChatGPT, they not only enhance their writing skills but also cultivate adaptability, creativity, and empathy, essential attributes for success in an increasingly interconnected and dynamic world. In short, the effectiveness of ChatGPT in academic writing support, especially in English argumentative essays, is evident. As an AI-powered writing assistant, ChatGPT is a valuable tool for anyone seeking to elevate their academic writing experiences (Raheem *et al.*, 2023). Therefore, there is a need for students to utilize the usage of ChatGPT for better academic results.

2.2.4. Related studies

ChatGPT has garnered significant interest and has been embraced by higher education systems (Farhi, Jeljeli, Aburezeq, Dweikat, Al-shami, & Slamene, 2023). Despite ChatGPT being a recent addition to the industry, there has been various worldwide research undertaken on its usage in education. Several studies were undertaken to examine how students perceive and use ChatGPT to enhance their writing abilities. These studies examining the implementation of ChatGPT and people's attitudes towards it have been carried out in various settings, including several colleges and institutions worldwide.

Mahapatra (2024) observed that there is a scarcity of empirical data on the influence of ChatGPT on writing, despite the favorable reactions from students. Consequently, the author carried out a study that used several research approaches to fill this research gap. The data were gathered from tertiary-level ESL students using three exams and an equal number of focus group conversations. The results demonstrate a substantial and beneficial influence of ChatGPT on students' proficiency in academic writing. Furthermore, students' opinions of this effect were overwhelmingly favorable. The research enhances and propels notions of feedback as a dialogic instrument and ChatGPT as a dependable writing tool, with practical ramifications.

The following study provided a detailed examination of how students perceive and use ChatGPT and its impact on their writing skills. The study conducted by C. Song and Y. Song (2023) aimed to assess the influence of AI-assisted language learning (ChatGPT) on the writing abilities and motivation of Chinese EFL students. The researchers used a mixed-method approach for their investigation. Quantitative analysis demonstrates notable enhancements in writing skills and motivation among students

who received assistance from ChatGPT, as compared to those who received traditional instruction. These improvements are evident in various aspects of writing, such as organization, coherence, grammar, and vocabulary. The qualitative results reveal a wide range of opinions, including the acknowledgment of AI's creative role in education and its good impact on writing abilities and motivation. However, there are also worries regarding the accuracy of AI in different contexts and the potential for excessive dependence on it. Participants additionally contemplate the enduring influence and durability of AI-supported education, underscoring the need for continuous advancement and adjustment of AI instruments.

While the favorable effects of ChatGPT are evident, there is a degree of doubt about the perceived advantages of ChatGPT among students. Salsabila *et al.* (2024) conducted a study on twelve second-semester English Language Education students at UNIROW to investigate the integration of ChatGPT into writing curricula, examine students' experiences with ChatGPT, and identify potential benefits or challenges associated with its use in writing instruction. Regarding experience and impression, the respondents provided indifferent responses to several questions. It may be inferred that they use ChatGPT in a passive manner and express doubts about its user-friendliness, indicating a preference for conventional writing approaches. Consequently, the authors hypothesized that students have not widely embraced ChatGPT as a conventional tool. Although students may use it for writing assistance, they are unlikely to fully grasp its potential to enhance their writing abilities.

Ngo (2023) conducted a study to examine the perceptions of university students regarding the use of ChatGPT for learning. The study explored the benefits, barriers, and potential solutions associated with using ChatGPT in education. This research has received significant criticism from individuals worldwide. The findings indicated that, overall, students had a positive view of the implementation of ChatGPT. In addition, certain obstacles to the utilization of ChatGPT were acknowledged, and some remedies were proposed to enhance its use in the field of education.

ChatGPT's rapid rise and widespread acceptance as an artificial intelligence tool (Imran & Almusharraf, 2023) demonstrates its significant capabilities in several domains. According to the literature study, it is clear that in the context of English as a Foreign Language (EFL), ChatGPT may be seen as a tool that enhances students' capacity to improve their English language skills. ChatGPT has the potential to be quite beneficial for students in the context of writing, whether they are working on argumentative writing or other forms of writing. It may greatly assist in enhancing many elements of their writing abilities.

3. Research methodology

3.1. Research aims and questions

The study was carried out with two main objectives corresponding to the following research questions.

To investigate students' attitudes toward using ChatGPT to develop their English argumentative essay-writing skills, the first question was formulated namely:

- What are EFL students' perceptions of using ChatGPT to develop their English argumentative essay-writing skills?

To study the extent of EFL students' practice of ChatGPT in developing their English argumentative essay writing skills, the second question was posed namely:

- To what extent do EFL students practice using ChatGPT to develop their English argumentative essay writing skills?

3.2. Research design

This study applied a method not only to examine to what extent EFL students practice using ChatGPT to develop their English argumentative essay writing skills but also to delve into the students' perceptions of using ChatGPT to develop their English argumentative essay writing skills.

To achieve the aims, this study applied a descriptive design. The current study described students' perceptions of the impact of using ChatGPT to develop their English argumentative essay writing skills. Furthermore, the descriptive design allowed the researcher to exhaustively understand the EFL students' practices of using ChatGPT to develop their English argumentative essay writing skills. The research included quantitative data from questionnaires and qualitative data from interviews. In this paper, insights into the perceptions and practices of learning strategies toward ESP for Tourism were gained through questionnaires.

Some studies on both the perception and practices of students using ChatGPT for language learning and writing development used questionnaires as valid data collection instruments (e.g., Malik *et al.*, 2023; Bibi & Atta, 2024; Farhi *et al.*, 2023; Salsabila *et al.*, 2024). The questionnaire in this study was partially based on the study Utilizing Artificial Intelligence Tools for Improving Writing Skills: Exploring Omani EFL Learners' Perspectives by Al-Raimi *et al.* (2024). Besides, the questionnaire was composed of the synthesis of the information from the articles of Raheem *et al.* (2023), Khatib and Meihami (2015), and Malik *et al.* (2023). Ninety-two items were included in the questionnaire for students to measure the students' perceptions of the impact of using ChatGPT on developing their English argumentative essay writing skills. The ninety-two-item questionnaire was designed bilingually which helped participants to make clear the questions and give appropriate answers.

Besides, a semi-structured interview was also used to confirm the result of using ChatGPT from students. Interviews were also possible tools to investigate students' perceptions in terms of using ChatGPT to enhance their argumentative writing skills (e.g., Xiao & Zhi, 2023; Bibi & Atta, 2024). The interviews for students in this study were modified from the interviews of Xiao and Zhi (2023). Five interview questions were generated to explore more data from students about their views and practices of using ChatGPT to enhance their argumentative writing skills.

3.3. Participants

The participants in the present study are students at School of Foreign Languages, Can Tho University. They are majoring in English Studies and English Teaching Education Programs, and they have both taken Reading-Writing B2.2 courses by the time ChatGPT was introduced widely. The subjects in the study are taught in academic English, and the material for this course is Q Skills for Success –English textbook: Level 3: Reading & Writing, provided by the writing teachers. In this study, 100 EFL students were randomly selected to participate in the survey using a questionnaire. At the same time, 10 students were randomly selected from 100 participants in the survey questionnaire and were invited to answer five interview questions. All participants answered the questionnaire sincerely.

3.4. Research instruments

3.4.1 Questionnaire

The questionnaire was designed to assess the students' perceptions and practices of using ChatGPT to develop their English argumentative essay writing skills. The questionnaires for students consist of 3 sections. The question items were made up of two types: five-point Likert-scale and multiple response ones. The questionnaire with a 5-point Likert scale containing eighty-six items among ninety-two items was used.

The first section included six items an inquiry into the general information about writing courses and using ChatGPT to participants.

Section 2 in the questionnaire, included forty-three items asked about students' perceptions of using ChatGPT to develop their argumentative essay writing skills. The questionnaires were initially designed in English and then translated into Vietnamese in order for respondents to the questionnaires to feel comfortable and to ensure no information was missing or confusing, even the respondents who were not good at English language use could understand the questions and complete the questionnaires. A five-point response scale was used to explore participants' perceptions of learning strategies towards ESP for Tourism (1 = strongly disagree, 2 = disagree, 3 = not sure, 4 = agree, 5 = strongly agree).

In the third section, a five-point response scale was used to identify the frequency of using ChatGPT to develop EFL students' argumentative essay writing skills of participants (1 = Never; 2 = Rarely, 3 = Sometimes, 4 = Often, 5 = Always). Similar to the second section, the bilingual design of the forty-eight-item survey aids participants in understanding the questions and providing accurate responses. However, the main target of the section is to investigate EFL students' practices in of using ChatGPT to develop their argumentative writing skills.

Table 3.1: Summary of the Questionnaire

	Constructs	No. of items
Section 1: Optional questions	General information	6
Section 2: EFL students' perceptions of using ChatGPT to develop their argumentative essay-writing skills	Vocabulary	5
	Grammar	11
	Idea Generation	5
	Organizing	5
	Translating	3
	Writing Style	5
	Plagiarism management	4
	Mechanics of writing	5
Section 3: EFL students' practices of using ChatGPT to develop their argumentative essay-writing skills	Vocabulary	5
	Grammar	11
	Idea Generating	5
	Organizing	5
	Translating	3
	Writing Style	5
	Plagiarism management	4
	Mechanics of writing	5
	Total	92

Eight clusters in Section 2 were associated with the eight aspects of writing development listed in Chapter 2, namely (1) students' perceptions of their enhancement in vocabulary, (2) students' perceptions of their enhancement in grammar, (3) students' perceptions of their enhancement in idea generation, (4) students' perceptions of their enhancement in organization, (5) students' perceptions of their enhancement in translation, (6) students' perceptions of their enhancement in writing style, (7) students' perceptions of their enhancement in plagiarism management, and (8) students' perceptions of their enhancement in mechanics of writing. This part of the questionnaire requires the participant to express their ideas on statements about their perceptions of ChatGPT on the development of their English argumentative essay writing skills regarding the mentioned aspects, using a 5-point Likert scale: Strongly Disagree, Disagree, Neutral, Agree, and Strongly Agree.

Eight clusters in Section 3 were associated with the extent of using ChatGPT for the eight writing development aspects such as (1) the extend of using ChatGPT to develop students' vocabulary, (2) the extend of using ChatGPT to develop students' grammar, (3) the extend of using ChatGPT to develop students' idea generation, (4) the extend of using ChatGPT to develop students' organization, (5) the extend of using ChatGPT to develop students' translation, (6) the extend of using ChatGPT to develop students' writing style, (7) the extend of using ChatGPT to develop students' plagiarism management, and (8) the extend of using ChatGPT to develop students' mechanics of writing.

This section of the questionnaire requires the participant to express their ideas on statements about the extent of using ChatGPT on these aspects, using a 5-point Likert scale to indicate the frequency: Never, Rarely, Occasionally, Frequently, Very frequently.

3.4.2 Interview

Alongside the questionnaire, semi-structured interviews were conducted and were asked and answered in English. To explore more about students' perceptions and practices of using ChatGPT to develop their English argumentative writing skills, five interview questions were developed.

3.5 Data collection

3.5.1. Questionnaire

3.5.1.1. Pilot questionnaire

The pilot study was carried out prior to the implementation of the questionnaire for data analysis to assess if the questionnaire was appropriate for the student's level. The questionnaire was translated into Vietnamese by the researcher and then was verified by the supervisor. For the pilot study, the questionnaires were handed to forty participants. Participants for the pilot research are invited randomly from the English Studies Program and English Teaching Education Program. On the date of the questionnaire piloting, the researcher came to one class to pilot the questionnaire. To ensure that the students clarified the study's objectives, the entire piloting procedure, including the objective statement, item description, and explanation, was conducted bilingually. To ensure that no questions were overlooked, participants were asked to fill out the questionnaire item by item.

3.5.1.2 Administration

Following the pilot research, the number of items on the official questionnaire was shortened. The questionnaire had two research purposes: first, it studied the perceptions of students on using ChatGPT to develop their English argumentative essay writing skills, and second, it investigated students' practices of using ChatGPT to develop their English argumentative essays. The questionnaires were distributed in the middle of the second semester of the academic year 2023-2024 at School of Foreign Languages, Can Tho University, Vietnam. With permission given by the School of Foreign Languages, the researcher came to each class to ask for their participation, and the questionnaires were completed after class time. As was done in the pilot study, the researcher explained the study's aims to the participants and invited them to fill out the bilingual version of the questionnaire. It took the participant approximately 15 minutes on average to complete the questions. They were required to review their answers for omitted items ahead of the submission. In total, 100 questionnaires were distributed and returned. There was no missing or incomplete questionnaire.

3.5.2. Interview

3.5.2.1 Pilot interview

Before interviewing the 10 participants, the interview questions were piloted in the hopes of making some significant modifications for a better outcome from the interviews. The pilot interview is expected to determine the format of the interview, look for ambiguity

or bias in the questions, and get some understanding of the interview processes for the researcher.

The participant samples consisted of four students chosen from among the questionnaire respondents. The interviews were one-on-one, face-to-face, and asked and answered in English. The respondents were studying English Reading-Writing B2.2 this semester, so it would be easy for the researcher to have direct interactions. The questions were clear enough to the respondents.

3.5.2.2 Administration

After completing the surveys, the researcher interviewed 10 students. The researcher interviewed each student interviewee directly in each separate interview. The participants were assured that their responses would be kept confidential and employed solely for the study beforehand to reduce the fear of exposing their personal opinions. The interviewees' real names were encoded before being employed. Finally, the recorded data were validated by the supervisor to guarantee the reliability of the data before conducting data analysis.

3.6 Data analysis

3.6.1 Questionnaire

The quantitative data about students' extent of involvement and perceptions obtained from the questionnaire were coded and analyzed, using the Statistical Package for Social Sciences (SPSS). Firstly, the researcher ran a reliability analysis test for each cluster of each part and the whole questionnaire, following the generally accepted rule that reliability above 0.7 demonstrates an appropriate level. Subsequently, the frequency procedure was run to statistically identify the number of students in Cohorts, and English writing courses, and the use of ChatGPT was run to identify.

The descriptive statistic was run to measure students' perceptions and practices of using ChatGPT to develop their English argumentative writing skills. Then, the One-Sample t-test was run at the significant level of 0.05 to ensure whether the observed and the expected mean score differences were significant.

The correlation coefficient was then calculated to measure the linear correlation between the perceptions (Section 2) and the frequencies of students using ChatGPT for their argumentative writing development (Section 3). The ANOVA statistic reveals if there are significant differences regarding the perceptions and practices between the students of the two cohorts.

3.6.2 Interview

Qualitative data presented a detailed understanding of students' perspectives and practices regarding the use of ChatGPT for argumentative essay writing skills enhancement. The researcher transcribed the interview data which was then verified by the supervisor. The researcher carried out two stages of processing the interview data such as classifying the responses and analyzing those classified responses. First, the

responses of the interviewees were classified as similar perceptions or practices. Following that, the categorized responses were analyzed. The responses were interpreted in order to illuminate the interviewees' meanings and implications.

4. Findings and discussion

4.1. Findings from quantitative data

To study EFL students' perceptions and practices of using ChatGPT to improve their English argumentative essay writing style, a ninety-two-item questionnaire was employed in this present study. Students' responses to two research objectives were gathered and then coded for data analysis. Eighty-nine of ninety-two items were coded for data analysis.

The reliability of the questionnaire was computed. The output indicated that the reliability coefficient for the ninety-two items in Sections 1, 2, and 3 is relatively high ($\alpha = .968$).

4.1.1 Frequencies

In this study, sixty-three students in Cohort 48 were calculated at 63%, and thirty-seven students in Cohort 47 were determined at 37% using the frequency procedure. The frequency statistics also described that 100% of the surveyed students have studied Writing B1, Writing B2.1, and Writing B2.2. Whereas the number of students who have taken the course Writing C1.1 was significantly lower with 34 students, this figure was equivalent to 34%. The number of students who enrolled in the two courses Writing C1.2 and Writing Scientific Research are 10 and 15, which respectively contribute 10% and 15% to the total. Among 100 students, all were reported to have been using ChatGPT for their writing assignments, this figure is equivalent to 100%.

4.1.2. The perceptions of students on using ChatGPT for improving their English argumentative essay writing skills

Table 4.1: The overall mean scores of students' perceptions of using ChatGPT for developing their English argumentative essay skills

	N	Minimum	Maximum	Mean	SD
Perceptions	100	3.31	3.84	3.72	.113

The extent of the perception of students on using ChatGPT to improve their English argumentative essay writing skills was researched in forty-three items in section 2. The result from Table 4.1 shows that, in general, the overall mean score ($M = 3.72$, $SD = .113$) is higher than scale 3.4, the average level of the 5-point Likert scale.

Table 4.2: The one-sample statistic between the total mean score and the medium level in the 5-point Likert scale

	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Mean
Perceptions	27.621	99	.000	.3132	.0113

Then, a One-sample T-test was conducted to investigate whether the overall mean score was significantly different from the 3.4 level. The result is shown in Table 4.2 with sig value = 0.00. It can be seen that there is a significant difference between the total mean score and the medium level of the 5-point Likert scale. Therefore, it is statistically confirmed that students have a moderately positive perception of using ChatGPT for developing their English argumentative essay skills, with relatively low variability in their responses.

Table 4.3: Descriptive Statistics of students' perceptions of using ChatGPT for developing their English argumentative essay skills

Students' perceptions of using ChatGPT to develop their English argumentative essay skills	N	Minimum	Maximum	Mean	SD
Vocabulary	100	3.20	4.80	4.08	.283
Grammar	100	4.45	4.64	4.51	.057
Idea generation	100	4.40	4.80	4.62	.166
Organizing	100	3.40	4.40	4.09	.183
Translation	100	1.33	3.67	2.56	.512
Writing style	100	4.20	4.80	4.61	.256
Plagiarism management	100	2.25	2.75	2.58	.121
Mechanics of writing	100	2.00	3.80	2.74	.377

As can be seen in Table 4.3, students' perceptions regarding the different aspects of developing English argumentative essay skills reveal varying levels of importance. Notably, students demonstrate a keen awareness of certain key aspects, as reflected in the mean scores. Idea generation, as aforementioned in the literature review section of the eight ChatGPT writing functions, emerges to the highest extent, with an impressively high score (M=4.62). Following closely is the aspect of Writing style and Grammar, which garners significant acknowledgment (M=4.61, 4.514). Organization and Vocabulary, likewise, receive a little touch lower but commendable recognition (M=4.08, 4.09). All these mentioned aspects received a higher mean score than the average mean score of the 5-point Likert score, which is 3.4. However, areas such as Mechanics of Writing, Plagiarism Management, and Translation receive relatively lower figures (M=2.74, 2.58, 2.56); this also indicates that their means score is below average compared to the Likert scale.

Table 4.4: The-one sample statistic between the clusters' mean score and the medium level in the 5-point Likert scale

	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Mean
PV	23.688	99	.000	.6700	.02828
PG	194.044	99	.000	1.1036	.00569
PI	72.941	99	.000	1.2140	.01664
PO	37.024	99	.000	.67600	.01826
PT	-16.543	99	.000	-.8466	.05118
PW	46.849	99	.000	1.19800	.02557
PP	-69.295	99	.000	-.83500	.01205
PM	-17.878	99	.000	-.67400	.03770

Notes:

- PG Perception of ChatGPT's usage for developing grammar,
- PI Perception of ChatGPT's usage for developing idea generation,
- PM Perception of ChatGPT's usage for developing mechanics of writing,
- PO Perception of ChatGPT's usage for developing organization,
- PP Perception of ChatGPT's usage for developing plagiarism management,
- PT Perception of ChatGPT's usage for developing translation,
- PV Perception of ChatGPT's usage for developing vocabulary,
- PW Perception of ChatGPT's usage for developing a writing style,
- PrG Practice of ChatGPT's usage for developing grammar,
- PrI Practice of ChatGPT's usage for developing idea generation,
- PrM Practice of ChatGPT's usage for developing mechanics of writing,
- PrO Practice of ChatGPT's usage for developing organization,
- PrP Practice of ChatGPT's usage for developing plagiarism management,
- PrT Practice of ChatGPT's usage for developing translation,
- PrV Practice of ChatGPT's usage for developing vocabulary,
- PrW Practice of ChatGPT's usage for developing.

As the one sample test was conducted, all of the aspects resulted in having a significant value at 0.00 and are proved to be different to the average 5-point Likert scale mean score. As a result, the perceptions of students on using ChatGPT to develop certain English argumentative essay writing skills seem to vary significantly. Specifically, it can be concluded that EFL students display a positive attitude towards using ChatGPT for developing certain skills in writing argumentative essays, including Idea generation, Writing Style, Grammar, Organization, and Vocabulary. Regarding the aspects of Mechanics of writing, Plagiarism management, and Translation, students exhibit a notably lower level of enthusiasm and recognition, as evidenced by their comparatively lower mean scores.

4.1.3 The practices of students on using ChatGPT to improve their English argumentative essay writing skills

Table 4.5: The overall mean scores of students' practices of using ChatGPT for developing their English argumentative essay skills

	N	Minimum	Maximum	Mean	SD
Practices	100	2.99	3.35	3.19	.063

The extent of the practices of students on using ChatGPT to improve their English argumentative essay writing skills was also researched in forty-three items in section 3. As shown in Table 4.3, the overall mean score (M=3.19, SD=0.63) is lower than the average level of 3.4 on the 5-point Likert scale.

Table 4.6: The one sample statistic between the total mean score and the medium level in the 5-point Likert scale

	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Mean
Practices	-34.569	99	.000	-.21675	.00627

After that, a one-sample T-test was run to determine the difference between the overall mean score of Practices and the 5-point Likert scale average mean score. As can be seen from Table 4.6, the total mean score and the average mean score of 3.4 are significantly different. This reveals that, on average, students use ChatGPT to develop their English argumentative essay writing skills to a moderate extent.

4.1.4 Correlation between the perceptions and the frequencies of students in using ChatGPT for their argumentative writing development

The correlation coefficient was computed to measure the correlation strength of Section 2 and Section 3, calculate the presence of the relationship between clusters, and signalize a meaningful association of questions in two relevant clusters.

Table 4.7: Correlation between Section 2 (Perceptions) and Section 3 (Practices)

		Perceptions	Practices
Perceptions	Pearson Correlation	1	-.227*
	Sig. (2-tailed)		.023
	N	100	100
Practices	Pearson Correlation	-.227*	1
	Sig. (2-tailed)	.023	
	N	100	100

In Table 4.7, the sig. = 0.23 indicated a meaningful association. However, a correlation of $r = -.227$ indicates that perceptions and practices tend to move in opposite directions.

In the correlation analysis between clusters, the value of sig. was mostly under 0.05, except for PG and PrG (sig. = .704), and PI and PrI ($r = 0.064$). Therefore, the Pearson

correlation of these two clusters was not examined, however, it can be determined that the correlation coefficient of other clusters was meaningful. Out of all, PM and PrM reveal a very strong correlation between the variables, with the specific $r = 0.866$. Besides, PP and PrP, PW, and PrW demonstrated a moderate positive correlation by the value of $r = 0.348$; $r = 0.346$. The weak correlation was shown by the pairs of PV and PrV ($r = 0.260$). Notably, there existed a moderate negative correlation between the pair PO and PrO, and PT and PrT, with the negative value of $r = -0.619$ and $r = -0.309$.

Overall, the correlation analysis underscores the complexity of the relationship between perceptions and practices regarding the use of ChatGPT for English argumentative essay writing skills. While there is an overall meaningful association between perceptions and practices, the negative correlation coefficient indicates that perceptions and practices may move in opposite directions. Strong correlations in certain clusters, such as mechanics of writing, suggest a robust relationship, while weaker correlations in others imply varying degrees of association between perceptions and practices across different aspects.

4.2. Findings from qualitative data

After gathering data from the questionnaire, ten sample respondents from ten students were contacted to take part in the interviews. The interviews are developed to capture more details about the participants' opinions toward their perception and practice of using ChatGPT for writing argumentative essay development. The main questions focused on the deeper manifestations of participants' experiences, perceptions, and reflections regarding the use of ChatGPT for improving English argumentative essay writing skills. Indirectly, the interviews attempt to gain insights into the support of ChatGPT towards the eight different aspects of developing argumentative essay writing skills.

The responses revealed that almost all of the participants had favourable perceptions toward the use of ChatGPT for writing practices. They were captivated by the support provided by ChatGPT in terms of development, particularly its help in improving vocabulary and idea generation capability.

In fact, only recognizing the use of ChatGPT is not adequate to contribute to the success of developing English argumentative essay writing; students' active practice should also be considered. The researcher reports the result by first exposing students' observations about their frequencies in utilizing ChatGPT to develop their English argumentative essay writing skills.

4.2.1. Students' practices of using ChatGPT to develop their English argumentative essay writing skills

The qualitative data from interviews with students was used to reaffirm the quantitative data of students' opinions on their perceptions and practice of learning strategies. As mentioned in the literature review, the research focuses on the eight aspects of

developing English argumentative essay writing skills. All of the participants had positive feedback on their practice of using ChatGPT.

4.2.1.1. Primary usage patterns

Data gathered from 10 students indicate that all participants who were interviewed use ChatGPT for developing their argumentative essay writing skills with significantly different purposes. Outstandingly, when being asked about which aspects of developing writing would they most likely use ChatGPT to improve, more than half of the participants unanimously agreed that they would utilize ChatGPT to generate new ideas when planning or writing an English essay, as Student 1 expressed:

“Most of the time, I will use ChatGPT to find ideas and develop them into essays. Because when writing, I’m still limited in coming up with ideas and implementing new ones, so sometimes I need to rely on ChatGPT to find more ideas. I actually use it more often than for other purposes.”

Or Student 8 added to the statement,

“I often use ChatGPT for developing my ideas because when writing, the first thing you need to do is get ideas, this is the best thing about ChatGPT that it can do.”

Besides that, some students participating in the interview claimed that they would most often choose ChatGPT as a tool to develop their vocabulary for better writing skills. Student 3 revealed that:

“Because my vocabulary range is quite narrow, that is why I use ChatGPT for vocabulary the most often.”

Interestingly, some students revealed that they have more than one priority for utilizing ChatGPT for writing development. Student 5 revealed that:

“First up, it is idea generating and organizing. This is where I use ChatGPT as I want to come up with potential topics, examples, and arguments, and put everything together in a logical order.”

And a statement from Student 9 was:

“First, I often use ChatGPT many times to consult ideas and essay structure, because it is very fast and convenient.”

Collectively, students generally utilize the usage of ChatGPT as a tool for developing writing efficiency.

4.2.1.2. Less utilized areas

When the researcher asked students to identify the writing skills that participants use ChatGPT less frequently for, half of the respondents picked out Plagiarism management. For example, Student 7 insisted that:

"Finally, I would place 'Managing Plagiarism' last because I always paraphrase and cite properly while writing, therefore, having those actions checked is sometimes unnecessary."

Student 1 revealed revealed that:

"To avoid plagiarism, I tend to use other online tools like Quillbot. Therefore, I hardly ever used ChatGPT for it."

Translating capacity is also noticed as the aspect that students least use ChatGPT for, as Student 5 stated:

"In my experience, Using ChatGPT to translate is inaccurate many times, so I do not use it regularly."

In other cases, two students revealed that they do not utilize the use of ChatGPT to improve their mechanics of writing, as explained by Students 7 and 8.

"When I finish writing, I will try to polish my essay in terms of minor aspects such as mechanics. But I usually do that myself, without the help of ChatGPT."

The collected data highlighted that students, for different reasons, use ChatGPT less for certain writing-developing aspects such as Plagiarism management, Translating, and Mechanics of Writing.

4.2.2. Students' perceptions of using ChatGPT to develop their English argumentative essay writing skills

4.2.2.1. Primarily developed ideas

As the quantitative result proved, students displayed a generally positive attitude toward utilizing ChatGPT for writing. When the researchers asked which specific aspect was mostly developed, there existed three groups among learners. One group, with six advocates, believed that ChatGPT has increased their idea generation capacity. As Student 2 proposed:

"I think 'Idea generating' stays first in line because ChatGPT has strongly developed my ability to create ideas within a certain time frame. With the answers it gives, I can learn not only the way it explains but also more vocabulary and sentence structures that are relevant to my topic."

Student 1 added up:

"Every time I use ChatGPT, I figure everything out better and faster, especially in generating ideas as I do not have to spend time searching for ideas from different sources on the internet."

On the other hand, the second group believed that their vocabulary was improved with the help of ChatGPT. Student 4 explained:

"ChatGPT uses a lot of contextually appropriate vocabulary so it is easy to recognize and develop."

There also remained another group that believed not only in their mastery of generating ideas but also in their ability to organize the essay developed with the help of ChatGPT. Student 6 proposed the following opinion:

"Sometimes I lack or have no ideas for an article and I don't know how to organize my ideas scientifically, so the skills of creating ideas and organizing are the most developed after I started using ChatGPT."

4.2.2.2. Least developed skills

As students utilize ChatGPT, some aspects are not developed as much as others. During the interview, a number of aspects were presented as the least developed aspects of students' use of ChatGPT, such as Plagiarism Management, Translating, and Writing Mechanics.

Student 6 stated:

"I would rank Plagiarism Management last because I barely see the use of ChatGPT in avoiding plagiarism."

This was also agreed upon by Student 1, Student 4, and Student 9. Besides that, the support of Translation from ChatGPT was not positively perceived by three, as Student 5 revealed:

"Translating is a useful skill, but I have not received any translation improvement from ChatGPT since it makes many mistakes in helping me translate."

Three out of ten Students agree that ChatGPT shows no evident support regarding the mechanics of their writing, as Student 7 stated:

"Other skills like mechanics are mostly learned from my teachers and friends, not from ChatGPT."

4.2.3. ChatGPT's impact on writing capacity

4.2.3.1. Personal reflection of students on the use of ChatGPT

In terms of the benefits that ChatGPT brings to their writing development, ten out of ten students realized that ChatGPT is a useful writing assistant and brings them significantly beneficial aspects. They revealed that by offering support for different aspects of writing development, ChatGPT saves them time, elevates their essay quality, and boosts their confidence. The following statements were collected from the students.

Student 8 reflected on their own experience with ChatGPT by stating:

"I am now more confident in developing good ideas, and I can improve my vocabulary as well as my grammar at a faster pace with the help of ChatGPT."

Similarly, Student 5 also believed their writing developed under the support of ChatGPT:

"I realized there are numerous ways in which ChatGPT helps me with enhancing my writing English essays such as coming up with concepts and arranging articles or creating ideas. Therefore, my skills in writing an essay have improved greatly ever since I used ChatGPT."

With the same idea, Student 1 proposed the benefits of ChatGPT as:

"It has stepped up the quality of my essays and saved me time by brainstorming ideas and structuring my arguments efficiently."

4.2.3.2. How ChatGPT changes students' ways of learning

It can be seen that, with the assistance of ChatGPT, students can level up their argumentative writing skills at a fast pace. Along with that, the researcher also tried to identify the difference that ChatGPT had offered. Five out of ten respondents revealed that they spend a shorter time writing but give out argumentative essays with better quality. Student 9 suggested:

"Getting specific suggestions or information from ChatGPT has made a difference for me. And because of that, my writing has become much clearer and more effective. I also find myself spending less time searching for resources and writing. That is why I regularly use it nowadays for these purposes."

The same idea was expressed by student 1:

"First, it helps me to expand my ideas for writing in a short time. Instead of devoting much time to searching for information in the conventional way, I can ask ChatGPT for help. Then, I can immediately process and search for a wide range of information, enhancing my

idea development and searching skills, which are regarded as immensely vital skills in writing. Second, ChatGPT helps me make the best word choice for my writing. When I struggle with word choices for my writing, ChatGPT can help me directly show appropriate words that should be used. Unless I ask ChatGPT for help, I have to look up these words in a dictionary that can offer me lots of different meanings, making me confused about which one is the best choice."

Another difference that students gained with the approach of ChatGPT is the access to an interactive tool for language learning, in general, and writing argumentative essays in particular. Specifically, Student 5 pointed out that:

"I think that learning now can be done more interactively and with the help of tools like ChatGPT."

Student 2 went further on the same answer:

"It's helped me change a lot in terms of my writing and speaking skills. Before, I didn't have as many interactive tools to work with."

This section revealed a deeper understanding of students' overall perceptions and practices regarding developing their English argumentative essays by ChatGPT. Notably, these observations suggest that ChatGPT not only streamlines the writing process but also fosters a more engaging and dynamic approach to language acquisition and composition.

4.2.4. Some perceived limitations of ChatGPT in developing students' English argumentative essay writing skills

In exploring the role of ChatGPT in fostering English argumentative essay writing skills, it becomes imperative to acknowledge the nuanced landscape of its perceived limitations. As students posed some aspects that they did not utilize from ChatGPT earlier, it is clear that students also witnessed some particular limitations from ChatGPT.

Student 1 suggested that:

"Sometimes it does not understand what I want it to generate, so the results are unusable."

Student 6 also commented on ChatGPT regarding the same aspect but with a specific explanation:

"In my opinion, the biggest limitation of ChatGPT is that when we enter a command that is not specific, ChatGPT will give results that are inconsistent with the topic or give general results. Besides, because it is just an AI, ChatGPT is quite stereotypical, meaning it lacks flexibility in understanding the meaning of a word in a situation. For example,

when I enter a topic with the word "man" meaning "human", ChatGPT thinks that word means "man" in terms of gender, thereby giving erroneous results. In addition, if ChatGPT is abused, writers may gradually lose the ability to reason for themselves."

Another problem posed by Student 6 that was agreed upon among Students 2, 3, and 8 is the overgeneralized information that ChatGPT provided is not helpful for users. Student 8 stated that:

"It usually gives a very general answer without specialized knowledge and realistic evidence. Some other times, it comes up with details that are nonsense and off-topic."

Additionally, Students 3, 4 and 5 had further perspectives, they not only concentrated on the tool's usage, but also its effect on the users.

Student 3 suggested that:

"Well, I believe that it makes us lose our creativity because as we depend on the tool's ideas, we do not actually create ideas but just select them from available resources. Therefore, not only creativity but also our critical thinking will decrease as we overuse ChatGPT, as I believe. What is more is that ChatGPT could only provide neutral essay ideas, which sometimes cannot display the point of view and the proper attitude that the writer is pursuing."

On the other hand, another concern was explained by Students 7, 9, and 10 regarding the source of information and the chance of committing plagiarism from ChatGPT. Student 9 explained:

"Using ChatGPT in developing argumentative essay writing skills in English can cause students to misuse ideas from ChatGPT and lead to the risk of plagiarism. Finally, ChatGPT does not provide articles and research papers that students need to use for reference and evidence."

Students' insights into the limitations of using ChatGPT to develop English argumentative essay writing skills paint a complex picture of its effectiveness. Despite its potential benefits, students express concerns about ChatGPT's limitations, including its tendency to produce nonspecific or irrelevant responses, potential reliance on ChatGPT, and the tool's inability to provide reliable references.

4.3. Discussions

4.3.1. Students' perceptions of using ChatGPT to develop their English argumentative essay writing skills

An investigation of EFL students' perceptions toward using ChatGPT to develop their English argumentative essay writing skills was carried out in part 2 of the questionnaire.

In this study, eight different aspects of writing development are referred to by participants. These are (1) Vocabulary, (2) Grammar, (3) Idea generating, (4) Organizing, (5) Translating, (6) Writing styles, (7) Plagiarism management, and (8) Mechanics of writing. Data from questionnaires and student interviews are consistent in that all students have a moderately positive attitude toward the use of ChatGPT. Regarding the eight aspects, students show their appreciation with the five aspects Vocabulary, Grammar, Idea generating, Organizing, and Writing styles. For the other three aspects, namely Translating, Plagiarism Management, and Mechanics of Writing, students exhibit a notably lower level of enthusiasm and recognition.

Based on the research conducted, it has been determined that learners use ChatGPT to develop different aspects of their English argumentative essay writing. The data collected showed that the participants had pretty much the same preferences in the use of ChatGPT. Moreover, the findings of the current study support to a great extent Syahnaz and Fithriani's study (2023) and previous researchers, which indicated favourable attitudes towards the implementation of AI systems, or ChatGPT in particular, highlighting its advantages in enhancing content quality, minimizing grammatical errors, and enhancing linguistic competency. In this current study, although different learners prefer different aspects of development, it is not all too different, and some are leading the way, namely Vocabulary and Idea Generating. In fact, all respondents have used ChatGPT to develop many aspects of their writing skills. Thus, they are quite perceptive of the aspects they prefer to use ChatGPT on that are suitable to their learning style.

One of the major aims of this study was to determine how EFL students perceive using ChatGPT to develop their English argumentative writing essay skills. From the short review above, key findings emerge that students have a positive perception of using ChatGPT to develop their English argumentative writing essay skills ($M = 3.72$, $SD = .113$). Of the eight writing aspects in this study, Idea Generation was most favoured by students. Students often face challenges in coming up with plausible ideas for their study. Hence, the use of ChatGPT escalates their ability to cover a topic with good arguments and details. However, through the interview section, students reveal that they "*did not blindly accept the information generated by ChatGPT but instead evaluated its accuracy, relevance, and specificity*" (Xiao & Zhi, 2023). This explained that students use ChatGPT with a proper understanding of the tool's functions. Evidence of that is that students, after a certain time utilizing ChatGPT for multiple purposes, reported not seeing the capability of ChatGPT in processing tasks excellently in aspects like Mechanics of Writing, Translation and Plagiarism Management compared to other aspects that gain much attention like Vocabulary or Writing Styles.

This study is relevant to the other study that shows that most students prefer the support of ideas from ChatGPT. This explains that students. This finding confirms Duong Trọng Hải (2003) conclusions for EFL learners in New Zealand. It seems obvious from the findings here that students must accept the fact that memorization will not be eliminated and should not be denied because it is thought to be an integral part of

students' learning habits. To increase the effectiveness of students learning EFL, they should explore the best strategies for memorization. When being interviewed about their perceptions of learning strategies, respondents first expressed their positive attitude and recognize the great importance of learning strategies. Students consider challenges in learning four language skills as opportunities for their development rather than obstacles in the study.

4.3.2. Students' practices of using ChatGPT to develop their English argumentative essay writing skills

Along with exploring perceptions, this study also determined the extent to which EFL students used ChatGPT to develop their English argumentative essay writing skills. Key findings provided above show that on average, students engage in using ChatGPT to develop their English argumentative essay writing skills to a moderate extent. ($M = 3.19$; $SD = .063$). Regarding the eight aspects, students show a tendency to use ChatGPT to develop their Vocabulary, Idea generating, Grammar, Organizing, and Writing styles. Similarly, to the perception, for the other three aspects, namely Translating, Plagiarism Management, and Mechanics of Writing, students exhibit a notably lower level of engagement. This finding is partially agreed upon by the research of Song and Song (2023), which reveals that students use ChatGPT for the improvement of their writing, including their vocabulary, grammar, organization, and idea-generation skills.

The use of ChatGPT to improve students' idea-generating ability occurred to be the most employed by students among the eight aspects of writing development in this study. To learn English well and improve their language abilities, particularly their English writing skills, students are usually required to find certain ways to improve it through diverse channels, hence, ChatGPT emerged to be a game changer in essay writing, especially the most particular type of writing that EFL student encounter, which is argumentative essay. As stated in the literature review, to produce convincing content for an argumentative essay, one must master the ability to generate and develop ideas (Dang *et al.*, 2020). The assistance of ChatGPT by synthesizing and providing ideas for users to apply in their writing is proven to attract students' attention and use at a high level. This study is pertinent to another study that demonstrates that most students apply ChatGPT to develop their writing effectiveness, especially to seek ideas for their essays. According to Bibi and Atta (2024), as ChatGPT is an effective tool for generating unique ideas and drafting, students utilize ChatGPT by giving various prompts and letting ChatGPT generate ideas, which improves their first draft's overall quality. Raheem *et al.* (2023) stated that This real-time collaboration aids in overcoming writer's block and fosters creativity during the initial stages of writing.

In contrast, the extent to which students got involved in using ChatGPT to develop their plagiarism management, translating, and mechanics of writing was marginal. The reasons were explained during the interview and through the review of related literature. Firstly, students may perceive these aspects as less critical or challenging compared to other aspects of writing, such as idea generation or vocabulary expansion. Consequently,

they may prioritize their efforts and resources toward areas where they perceive a greater need for improvement, namely idea generation or new vocabulary word attainment. Secondly, students might rely on alternative tools or methods for addressing these specific writing challenges. For instance, they may prefer dedicated plagiarism detection software or human translation services for more accurate results in plagiarism management and translation tasks, respectively. There exist a variety of online tools that are designed solely to serve these mentioned tasks, namely Google Translate for translating purposes, Quillbot for paraphrasing and plagiarism checking, and Grammarly for the enhancement of the mechanics of writing. Similarly, students may prefer manual proofreading or editing processes for refining the mechanics of writing, considering it a more hands-on and effective approach. Additionally, students may have concerns about the accuracy and reliability of ChatGPT in handling these tasks, particularly in nuanced language contexts or technical writing requirements. Therefore, they may choose to rely on more specialized tools or human expertise for these aspects of writing. Overall, the marginal involvement in utilizing ChatGPT for plagiarism management, translating, and mechanics of writing likely stems from a combination of perceived priorities, preferences for alternative solutions, and concerns about ChatGPT's effectiveness in addressing these specific writing challenges.

4.3.3. Possible drawbacks of ChatGPT

It is evident that ChatGPT offers promising benefits for enhancing English argumentative essay writing skills. However, an important discovery from the current research reveals that students also cultivated a sceptical perspective regarding the significance of ChatGPT in English language acquisition in general and developing their argumentative essay writing in particular. This finding is a notable concern that has been explored and discussed in previous related literature.

One significant limitation that was gained in the interview is the risk of over-reliance, which could lead to a decline in students' critical thinking and creativity. As shared by the respondents of the research, relying too heavily on ChatGPT for idea generation may stifle students' ability to think independently and develop original arguments. Therefore, instead of acting as a supportive tool for students, ChatGPT becomes a destructive tool towards students' language proficiency development. Additionally, there is a concern regarding the accuracy and authenticity of the content generated by ChatGPT. Students may encounter instances where the generated content is nonsensical or irrelevant, posing challenges in composing coherent essays. Participants in the research paper conducted by Song and Song (2023) suggested that it is better to examine carefully the response of ChatGPT as sometimes it provides unreliable information. Lastly, there is the risk of unintentional plagiarism, as students may inadvertently incorporate content generated by ChatGPT without proper citation or attribution. These findings are in accordance with multiple previous research. Ngo (2023) supported these findings by stating that there are times that ChatGPT can sometimes offer information which is unreliable on topics with few citations and can produce

inaccurate or false factual references. According to Bibi and Atta (2024), the reliability, validity, and authenticity of the results offered by ChatGPT gained a noticeable amount of doubts from users participating in the study.

While ChatGPT offers valuable support, educators must address these potential drawbacks and implement strategies to mitigate their impact on students' learning and development.

4.3.4. Correlation

The Pearson correlation first demonstrated that there was a negative connection between perceptions and practices. This means that when students' perception of using ChatGPT to develop the eight aspects of their English argumentative essay writing skills increases, their engagement tends to reduce. However, on the mutuality between aspects, some particular aspects, namely Mechanics of writing, Plagiarism management, and Writing styles, carry a positive correlation between the perceptions and practices of students.

4.3.5. Significant difference

The ANOVA results suggest that students' perceptions of using ChatGPT for argumentative essay writing are generally consistent across different aspects, indicating a uniform perception of its effectiveness in certain areas such as vocabulary, grammar, and organizing. However, practices vary significantly, highlighting disparities in how students engage with ChatGPT across different writing skills. Accordingly, there was no similar comparison in previous studies between students' perceptions and practices as the ANOVA analysis in this current study is new.

5. Conclusion and implications

5.1. Conclusion

The results cast a new light on the current use of ChatGPT in an EFL educational setting regarding the topic under study. ChatGPT certainly plays an important role in the EFL curriculum and language education. From this perspective, ChatGPT is identified as an important tool for writing development. Typically, students can develop their writing through various channels. However, the emergence of ChatGPT plays the role as an extraordinary boost for EFL students to master their writing capability in many aspects, including Vocabulary, Grammar, Idea generation, Organization, Writing styles, Translation, Mechanics of writing, and Plagiarism management, This powerful way of developing one's writing skills regarding different aspects for development distinguish itself with traditional ways. Because of this distinction, the use of ChatGPT for a particular type of writing, namely argumentative writing, should be studied to see how it influences EFL students. Altogether, students' perceptions towards using ChatGPT must be grasped in order to contribute to the quality of both teaching and learning English writing for developing their argumentative essay writing skills must be grasped in order to contribute to the increasing quality of both teaching and learning of writing

in general, and writing argumentative essays in particular, with the assistance of ChatGPT.

Brown (2000, p:27) stated that *"it is easy to assume that success in any task is due simply to the fact that someone is motivated"*. The entire learning process would be a failure if students were not practising. As a result, the impact of perception and practice was examined in order to evaluate the students' engagement in the process of developing their argumentative essay-writing skills.

Broadly speaking, students concurred with the help of ChatGPT to develop their argumentative essay writing skills ($M > 3.00$). As it was believed in the interviews, EFL students who have utilized ChatGPT for their argumentative writing took a distinctive step forward, compared to before. Students, as experienced with different usage of ChatGPT, exhaustively recognized the value of using ChatGPT for various aspects of writing development. Regarding the aspects, the use of ChatGPT in developing students' ability to generate ideas for their argumentative essays received the most recognition, followed by the assistance of improving their vocabulary. This acknowledgement underscores the transformative impact of ChatGPT on students' writing journey, marking a substantial departure from conventional methods.

On the other hand, the extent of student practice is quite moderate for the eight aspects of writing development, in which the aspect of Idea Generating gains the most engagement, followed by Vocabulary, while the strategy has the least impact was Mechanics of writing, Translation, and Plagiarism development, which proves that students have their own attitudes and emotional control towards the use of ChatGPT, but the extent of applying different usage varies among aspects of development. Noticeably, according to the students who participated in the interviews, concrete reasons were given on why ChatGPT was not utilized to improve certain aspects of writing.

By conducting the semi-structured interview, the study found that the majority of students participating in the survey were able to recognize ChatGPT's limitations for writing development, including its unreliable sources of information, context-irrelevant responses, and risk of plagiarism. This allows the conclusion that ChatGPT users, instead of developing their writing skills, could possibly demolish their own writing capability without proper awareness and enough experience in using it.

This may be considered a notable aspect of using ChatGPT to develop writing argumentative essay skills. Through the measurement of Pearson correlation between sections and clusters, it would appear that there was a negative correlation between the attitude and extent of using ChatGPT to develop EFL students' argumentative writing skills. However, there was a positive relationship between not all but certain clusters, including both medium and weak associations. Nevertheless, the study found no connection between clusters PG and PrG ($p = .704$), PI and PrI ($p = .064$).

Frankly speaking, even though a similar pattern of research methodology was used, the data from the interviews with students in this study and the quantitative results are the ones that seldom duplicated previous studies' activities.

5.2. Pedagogical implications

As explored in this study, ChatGPT is a powerful tool that assists students in developing different aspects of writing argumentative essays. However, concerns and limitations regarding the use of ChatGPT were also raised among those who participated in the interview. It is obvious that there should be clear guidance on how this tool be utilized for the betterment of the classroom context. The findings of this study have important implications for various stakeholders, including English learners, teachers, lecturers, and policymakers.

The two implications of this research for EFL students lie in the integration of AI tools like ChatGPT into their language learning process. First, it is essential for EFL learners to actively integrate AI tools into their language learning and argumentative writing practices to enhance their writing skills, be it vocabulary, argumentative abilities, and many other aspects that can be quickly and thoroughly developed with the help of ChatGPT. However, as shared in the interview, the undisciplined use of ChatGPT can lead to students' dependence on ChatGPT, thus preventing the development of creativity and critical thinking. This problem has posed another implementation for EFL students as they should exercise caution and critical thinking when using ChatGPT, recognizing its limitations and understanding it as a tool to support their learning, not replace their skills.

As ChatGPT and other AI tools are ample resources for the educational system, educators, more than anyone else, should be the first ones to have a deep understanding of the role of ChatGPT in education. To do that, they should first recognize it as an inevitable trend in education and revolutionize pedagogical approaches accordingly by embracing the integration of AI tools like ChatGPT into language learning classrooms, rather than banning it outright. A suggestion for that can be establishing dedicated AI-supported language learning classes, therefore empowering EFL learners to utilize AI tools effectively, receiving specific feedback to address writing challenges and refine their skills. Secondly, assessment practices may need to evolve to account for the ease with which AI can conduct certain tasks, shifting the focus towards evaluating critical thinking and creativity rather than general writing skills.

For classroom teachers and lecturers, the integration of AI tools into EFL writing courses can significantly enhance students' academic writing skills and motivation, offering opportunities for more efficient and effective learning outcomes. Particularly, teachers can provide pedagogical guidance to help students utilize ChatGPT in a legitimate, proper, and productive manner, emphasizing its role as a supportive tool rather than a replacement for students' skills.

These implementations can advance students' perceptions and practices of using ChatGPT, therefore rewarding their English language learning and argumentative writing skills development. So, it cannot be denied that teachers are indispensable in implementing learning methods towards the integration of ChatGPT that positively impact students' perceptions and practices.

5.3. Limitations

Although conducting this study was a great experience for the researcher, the researcher could not avoid some shortcomings during the research process. The unavoidable limitations of this study were as follows:

Firstly, due to time constraints, the researcher could only delve into students' perceptions and practices regarding using ChatGPT to develop their argumentative essays. Therefore, according to Colonna and Gilbert (2006), the same approach was not applied to other types of essays that EFL students encounter, such as descriptive, classification, cause-and-effect, and comparison-and-contrast essays.

Secondly, the scope of the participants is quite limited; this study only involves students from the two majors, English Studies and English Teaching Education. Therefore, it has not been extended to students who belong to other majors from the same department of the School of Foreign Languages, such as those of the English Study of High-Quality Program, because they study with different writing courses and materials.

Additionally, the study was conducted in a specific context of Can Tho University, which may not reflect the case of English-majored students at other universities or in different regions of Vietnam.

Another limitation is that the findings of this study only assist students in the next courses because of the available time for this study. The study was accomplished when students closely completed the courses. For that reason, the current participants do not benefit from the results revealed in this study.

Despite the above limitations, the researcher really hopes that the current study will be useful for EFL students at CTU in using ChatGPT to develop their argumentative essay writing skills. Also, teachers have an objective view in proposing appropriate and effective methods for students to develop more comprehensive and nuanced writing abilities.

5.4. Recommendations for further research

Firstly, the scope of future research should be expanded. This study's population consisted only of major Tour Guide students. It is advisable for further studies to investigate this topic in a larger population, including other majors so that other aspects of ESP can be discovered. Apart from the English for Tourism subjects, there are still many subjects that need innovation through English learning strategies.

Secondly, a similar study is needed to delve into one specific skill, which assists EFL learners in gaining insight into the knowledge of four language skills. In addition to the four language skills, further studies should investigate the perception and practice of learning strategies in terms of vocabulary, grammar, and pronunciation to gain a better overview of ESP.

The last recommendation for further research is that future studies be conducted at the beginning of the school year so that participants can benefit from the findings. Due to the aforementioned limitations, future researchers could explore new avenues of research with a multifaceted approach, guided by the following recommendations:

Firstly, there is a need to broaden the scope of future investigations. This study focused solely on students majoring in English Studies and English Teaching Education. It is advisable for subsequent studies to include a more diverse participant pool, encompassing students from various majors within School of Foreign Languages at Can Tho University. This broader sampling approach would offer a more comprehensive understanding of the effectiveness of ChatGPT across different academic disciplines and writing contexts.

Secondly, future research could delve deeper into specific writing skills beyond argumentative essays. While this study primarily examined the use of ChatGPT for argumentative essay writing, other types of essays are commonly encountered by EFL students, such as descriptive, classification, cause and effect, and comparison and contrast essays. By exploring students' perceptions and practices regarding utilizing ChatGPT for these different essay types, valuable insights into its versatility and efficacy across various writing tasks will be provided.

Lastly, it is recommended that future studies be conducted at the beginning of the academic year to maximize the benefits for participants. This study concluded when students were nearing the completion of their courses, thus limiting the immediate applicability of the findings to the current participants. Initiating research at the onset of the school year would allow participants to incorporate the insights gained from the study into their ongoing coursework, enhancing the practical relevance and impact of the research findings.

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Conflict of Interest Statement

The author declares no conflicts of interest.

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