

Unravelling EFL Learners' Attitudes Towards ChatGPTBased-Feedback in Writing: The Case of First Year L.M.D Students at the University of El Oued

Fatma Zohra Taabli^{1,*}

University of El Oued, (Algeria) taabli-fatmazohra@univ-eloued.dz

1Laboratory of Pragmatics and Discourse Analysis

Asma Nesba²

University of El Oued, (Algeria) nesba-asma@univ-eloued.dz

2Laboratory of Pragmatics and Discourse Analysis

Date of submission: 18/02/2025

Date of acceptance: 19/03/2025

Date of publication: 10/04/2025

Abstract:

Artificial intelligence has undoubtedly influenced the field of education through the digitalization of language learning. This study aims to investigate EFL learners' attitudes towards ChatGPT based- feedback in writing. Using a survey design, 34 first-year EFL students in Algeria participated in this study by completing a semi-structured questionnaire. Correspondingly, thematic analysis procedures were applied to gain comprehensive interpretations from the qualitative dataset while quantitative data were analyzed using descriptive statistics. The results revealed that the respondents expressed positive attitudes towards ChatGPT- based feedback. They further demonstrated the major challenges and prospects of using artificial intelligence tools to facilitate EFL learning. Future research may involve a follow-up study that explores the reasons behind the inadequate application of ChatGPT feedback by EFL learners, shedding light on potential future improvements.

Key words: chatGPT, EFL, artificial intelligence, feedback, writing.

1. Introduction

Since the 1950s, natural language processing (NLP) models have been developed (Jones, 1994). Recently, higher education has been quickly recognizing the value of NLP models as they have the potential to revolutionize teaching and learning by offering tailored instruction (Odden et al., 2021). The generative pre-trained transformer language model known as ChatGPT has been specifically trained to produce texts in response to inputs in natural language (Nebieridze&Jojua, 2024). It can be used in various software applications, such as chatbots, virtual assistants, and language translation tools, which were created to replicate human-like dialogues (Biswas, 2023). In this context, ChatGPT models have a wide range of applications in higher education, serving multiple purposes to support students' learning. For instance, these models can be utilized to evaluate and analyze extensive textual data (Shahriar &Hayawi, 2024), including research articles, courses of study, and other course materials, which provides students with tailored recommendations for enhancing their learning styles and objectives (Fuchs, 2023). On this account, ChatGPT has generated a great deal of speculative debate among academic stakeholders.

The rapid implementation of advanced NLP models, such as ChatGPT, brings new challenges and considerations, particularly in writing skill development. In this framework, substantial scrutiny has been placed on the effect of teachers' feedback on the assessment of students' performance. Considerable evidence has proven that it is conducive to the development of EFL writing skills (Nebieridze&Jojua, 2024; Tlili et al., 2023; Javaid et al., 2023). However, The efficiency of ChatGPT in enhancing writing remains a subject of debate.

* Corresponding author: Fatma Zohra Taabli.

The purpose of this research is to explore ChatGPT-based feedback in the EFL context and the attitudes of EFL learners regarding its effectiveness. Hence, conclusions will be drawn to ideally highlight knowledge gaps, inspire new research directions, and advance discussions around ChatGPT-based assessment in higher education along with EFL students' perspectives on implementing AI-based feedback in writing.

2. Literature Review

2.1 Artificial Intelligence and Learning

Artificial intelligence (AI) refers to a machine's capacity to replicate intelligent human behaviour (Cantos et al., 2023). It is defined by Popenici and Kerr (2017, p. 2) as “computing systems that are able to engage in human-like processes such as learning, adapting, synthesizing, self-correction, and use of data for complex processing tasks.” Advancements in machine learning have enabled the development of sophisticated digital content production, including generative artificial intelligence (Hu, 2024).

In this context, artificial intelligence has become a vital component of modern educational systems; significantly, it has a vital role in enhancing instructional methods and influencing various educational domains (Cambria & White, 2014), including English language teaching (ELT). According to Arini et al. (2022), AI-powered tools and technologies are being utilized to personalize instruction, provide immediate feedback, and create more interactive and engaging learning experiences. These technologies offer practical solutions to the challenges faced by learners and teachers, such as the personalization of learning experiences and providing access to information (Goncharenko et al., 2010).

Regarding the positive impact of AI tools on learning, Gutiérrez (2023) states that integrating AI technologies has brought about a radical transformation in teaching strategies and instructional methods in second language learning. Consequently, AI has attracted educators' interest due to its potential to improve learning outcomes, accelerate learning processes, and assist teachers in their tasks (Kannan & Munday, 2018). XasanO'g'li (2024) highlights that AI-powered language learning tools enhance learning outcomes by customizing the learning experience. This allows content and difficulty levels to be adjusted according to each learner's needs and preferences. From the same perspective, Son et al. (2023) found that advanced AI-powered foreign language learning systems can effectively match each learner's ability level and learning pace through sophisticated adaptive algorithms, enabling them to customize course materials accordingly.

However, Rukiqi (2024) argues that newer AI models may pose a threat to students' education. With these advanced technologies, students may become overly dependent on AI. Thus, learners may use chatbots to generate entire texts instead of developing their own language skills. Similarly, Aijun (2024) acknowledges that while AI has introduced numerous innovative solutions for language learning, several barriers may hinder the process. These challenges include low motivation, difficulty in understanding foreign language concepts, and limited time for intensive practice. All of which can prevent EFL learners from achieving the required level of language proficiency (Graves, 2023).

2.2 ChatGPT and Language Learning

ChatGPT is one of the large-scale AI-powered chatbots (OguzhanTopsakal, 2022). It stands for Generative Pre-trained Transformer, created by Microsoft-backed OpenAI and released in November 2022 (Kohnke & Zou, 2023). This AI model facilitates language learning by mimicking real conversations. It can recognize word meanings in context, correct and explain language errors, and generate texts in various genres (Kohnke & Zou, 2023).

Like other technological tools, ChatGPT has the potential to enhance language education (García Botero et al., 2019; Brown et al., 2022). Many studies have demonstrated the positive impact of technological advancements on facilitating language learning (Albiladi & Alshareef, 2019; Andujar, 2020; Jiao, 2023). It represents a significant breakthrough in natural language processing

which enables complex computer systems to understand and generate natural language (Kasneci et al., 2023, as cited in Baskara, 2023).

According to Baskara (2023), ChatGPT holds great promise for language learning and education by offering personalized and interactive experiences. Its extensive vocabulary and contextually appropriate responses can help enhance communication skills in different languages. Generative Pre-trained Transformer (GPT) models use publicly available digital content and natural language processing (NLP) techniques to produce human-like text in multiple languages. They can generate coherent text on a wide range of topics (Aydin & Karaarslan, 2023, as cited in Baidoo-Anu & Ansah, 2023).

Despite the benefits provided by ChatGPT in language teaching, its limitations must be considered. Baidoo-Anu and Ansah (2023) highlight that while chatGPT provides individualized and interactive learning, supports formative assessment tasks, and offers continuous feedback to enhance instruction, it also has drawbacks. This AI tool has the potential of generating incorrect information, biases in data training, and potential privacy concerns. Besides, although AI technology can offer translation and communication assistance throughout real time, it fails to effectively convey the subtle variations of culture and psychological aspects underlying the language (Sampson et al., 2020).

Hence, the use of chatGpt in foreign language learning can improve learning, but it can also reduce autonomy and cultural awareness owing to excessive dependency (Aijun, 2024). Educators and researchers should strike a balance between technology-assisted and autonomous learning to promote long-term learning and cultural awareness while reaping the benefits of artificial intelligence tools (Pokrivcakova, 2019).

3. Research Methodology: Choices and Rational

This section outlines the methodological choices that underpin the current research. Within this framework, the study's research design, approach, data collection methods, and data analysis procedures will be detailed.

3.1 Population and Sampling

The study was conducted in the academic year 2023/2024 in Algeria. The population of the current research is first-year EFL students from the University of El Oued. Using random sampling techniques, 34 students participated in this study. They were 30 female and four male students at the department of English who showed their willingness, with no coercion, to respond to the questionnaire. Merriam (2009) maintains that the methodology, the type of information mandated by the problem under investigation, and the available number of respondents with the relevant expertise could impact the selection of participants and the sample size of the study. Fundamentally, the decision on the population was based on the elevated potential of the respondents' familiarity with generative pre-trained language models. As a consequence, they impart authenticated information from which the principles of data interpretation can be gleaned.

3.2 Research Design

The purpose of this research is to investigate EFL students' attitudes towards ChatGPT as one of the AI-based assessment models. The framework in which the study was conducted is a survey design within a quantitative and qualitative approach. Thus, the generation of quantitative and qualitative data from the questionnaire yielded a rich and valuable dataset. The questions were a combination of closed-ended and open-ended questions. While the former provided precise and static data, the latter served as a means for delving into the respondents' attitudes and perspectives. Within this framework, Kothari (2010) asserts that a research design is the arrangement of conditions for the collection and analysis of data in a manner that aims to align with the research purpose. It is the plan, the conceptual structure, and strategy that guarantee the smooth and efficient progress of the research operations and procedures.

3.3 Data Collection Tools and Procedures

The current research is based on a single data collection tool. In this framework, a semi-structured questionnaire was designed to accommodate a wide range of responses. This approach enriched the data set gathered in the study and facilitated the achievement of valuable and comparable data. Creswell and Creswell (2017) affirm that a semi-structured questionnaire provides "the flexibility of open-ended questions while also allowing the researcher to maintain some control over the data collection process" (p. 228).

To validate the questionnaire, it was sent as a "Google Form" to two EFL teachers. They affirmed that the questions were valid and reliable and that they effectively met the objectives of the study. The next step was piloting, where the researchers pre-tested the data collection tool to reduce ambiguity and safeguard against any issues that could lead to data skewing (Tate et al., 2023). This step also allowed for assessing the questionnaire's validity and ensuring that the questions effectively addressed the target research question (Shakir & Ur Rahman, 2022). Ultimately, the researchers adjusted the length of the questionnaire based on the respondents' feedback and omitted certain words that were not fully understood, which hindered their comprehension of the intended meaning.

3.4 Data Analysis Procedure

The purpose of the questionnaire was to generate a comprehensive dataset. To analyse the qualitative data, the researchers conducted a thematic analysis. Generating themes from the responses allowed to gain a deeper understanding of the respondents' attitudes and perceptions toward ChatGPT's feedback provision, and their level of satisfaction with its efficacy. Additionally, the close-ended questions generated numerical, static data, which required descriptive analysis procedures. Specifically, measures of frequency distribution and percentages were utilized in the study.

4. Results

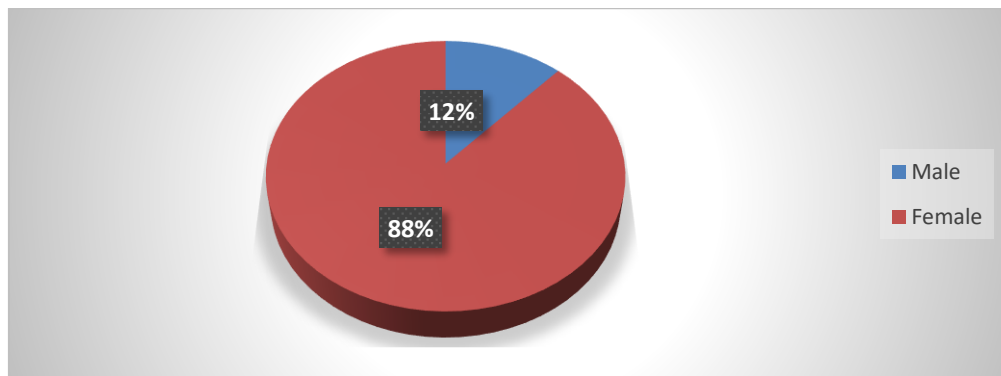


Figure 1. The Respondents' Gender

The first section of the questionnaire focused on collecting essential background information about the respondents. The sample consisted of 34 EFL students enrolled in the English branch at the University of El Oued. As shown in figure 1, 30 of the respondents were female, while 4 were male, with females representing 88% and males making up 12% of the sample.

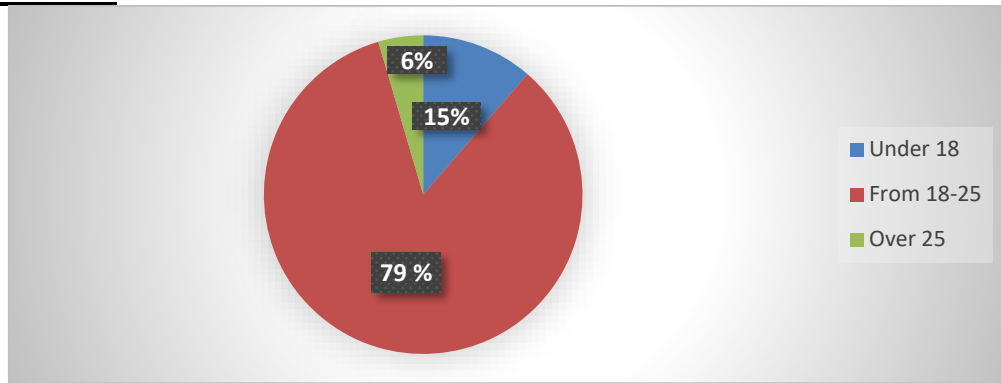


Figure 2. The Respondents' Age

Regarding the respondents' age distribution, Figure 2 shows that 5 respondents (15%) are under 18 years old. The largest proportion, 27 respondents (79%), are aged between 18 and 25, while only 2 respondents (6%) are over 25 years old.

Section Two: ChatGPT: AI Model-Based Feedback.

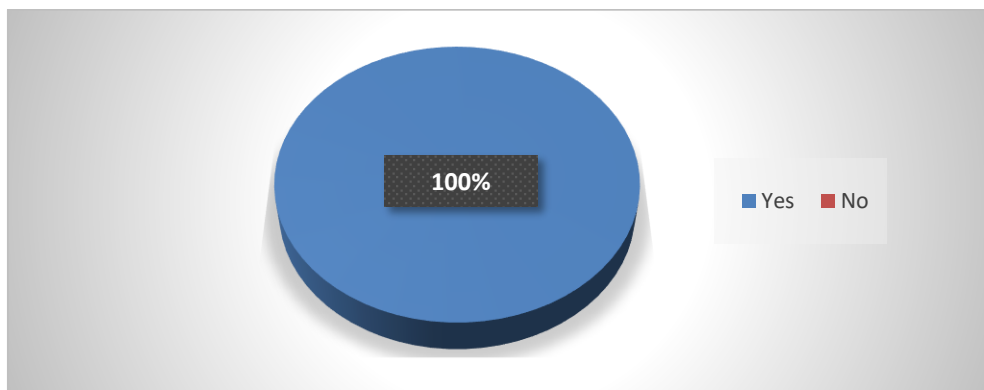


Figure 3. The Respondents' Familiarity with the Concept of Artificial Intelligence.

The first question in this section addressed the respondents' familiarity with the concept of artificial intelligence. Figure 3 shows that all the respondents (100%) indicated their familiarity with this concept, suggesting that the sample will provide comprehensive data on the current research problem.

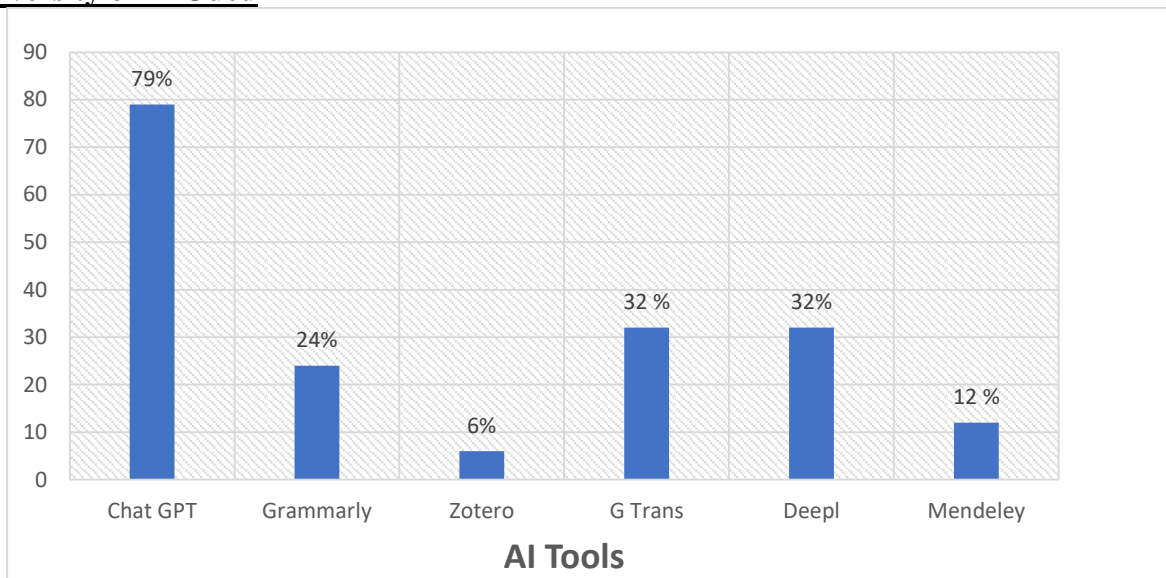


Figure 4. A Bar Chart Describes the Respondents' usage of Different AI tools.

The second question aimed to gather additional information on the AI tools frequently used by the respondents in EFL learning. In this regard, 8 respondents, representing 24% of the sample, reported using "Grammarly" to check the accuracy and adequacy of their texts. Additionally, 27 respondents, representing 79% of the sample, indicated that they prefer using "ChatGPT" to generate texts, translate, and actively practice their language through simulated conversations. Another AI tool mentioned by 6% of the respondents was "Zotero," which, according to them, helps cite multiple papers and sources in a short time, as well as save items and download full PDF documents. Furthermore, 4 respondents, representing 12% of the sample, noted that they frequently use "Mendeley" for learning, as it facilitates access to free content and lessons. Moreover, 11 respondents (32%) stated that they consistently use "Google Translate" and "Deepl," which help them understand difficult texts and terminology. Figure 4 illustrates the percentages of AI tool usage in learning as reported by the respondents.

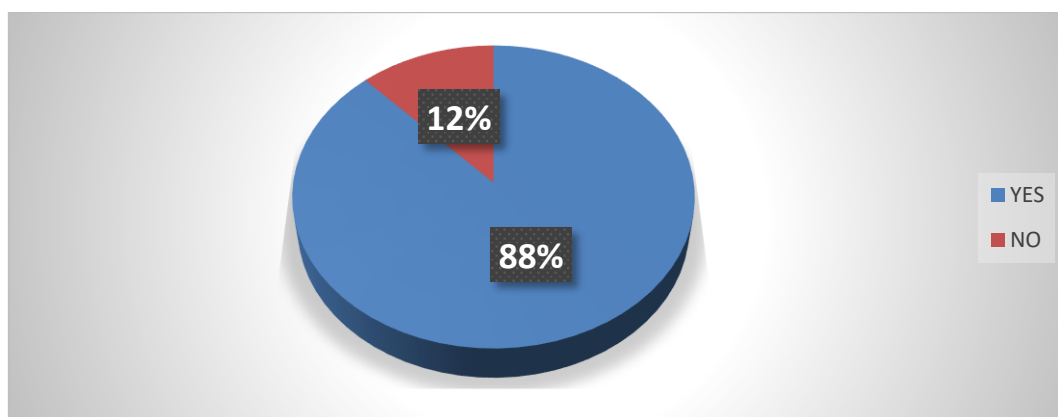


Figure 5. A Pie Chart Represents the Respondents Familiarity with ChatGPT

Unequivocally, the respondents were asked about their familiarity with ChatGPT to explore their perspectives on using ChatGPT in foreign language learning. As shown in Figure 4, 88% of the respondents, representing 30 individuals, declared that they are familiar with using ChatGPT for

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learning purposes, while only 5 respondents (12%) indicated that they are unfamiliar with this virtual language chatbot.

As for their perspectives, the respondents stated that this tool is helpful and supports their learning. Their views regarding the ChatGPT model were divided into two groups. The first group, which represents the smaller proportion, emphasized their unfamiliarity with this AI tool. On the other hand, the larger proportion (88%) were familiar with ChatGPT. The responses from the latter group were summarized in the following themes: ChatGPT is effective in translating texts to and from the target language, provides direct access to information without the need for internet searches, and allows for generating texts and receiving instant feedback. Additionally, the respondents added that ChatGPT supports automatic analysis of texts in terms of grammatical accuracy, mechanics, and structure.

Section 2: Chat GPT-Based Feedback

Table 1.

Frequency and Percentages of the Respondents' Satisfaction on Chat GPT-Based Feedback

Statements	Strongly Agree		Agree		Neutral		Disagree		Strongly Disagree	
	F	P	F	P	F	P	F	P	F	P
I believe that ChatGPT-based assessment helps me improve my writing skill.	12	35%	20	59%	00	00%	02	06%	00	00%
I often rely on Chat GPT to correct my assignments.	05	15%	17	50%	00	00%	08	24%	04	12%
ChatGPT consistently provides me with misleading feedback.	07	21%	03	09%	00	00%	12	35%	05	15%
My instructors frequently provide feedback that is identical to ChatGPT feedback.	03	09%	09	26%	06	18%	12	35%	04	12%
I trust ChatGPT feedback more than the teacher's one.	00	00%	09	26%	07	21%	13	38%	05	15%

This section directly addressed EFL learners' attitudes toward ChatGPT-based feedback. As Table 1 portrays, the first question endeavours to shed light on the respondents' level of satisfaction with a number of statements. In this regard, 12 respondents, representing 35% of the whole sample, affirmed that they "strongly agreed" that ChatGPT-based assessment helped them improve their writing skills. Meanwhile, 20 respondents, who represent the highest rate (59%), indicated that they "agreed" with the statement. None of them were "neutral" or "strongly disagreed." However, only two respondents (2), representing 6%, stated their disagreement with the claim that ChatGPT helps boost writing skills.

Similarly, 5 respondents (15%) maintained that they often rely on ChatGPT to correct their written assignments. The highest proportion (50%), representing 17 respondents, "agreed" with the statement. None of them were neutral. Nevertheless, 8 respondents "disagreed" and 4 of them "strongly disagreed" with the second statement, with proportions of 24% and 12%, respectively.

As for the third claim, 7 respondents, representing 21%, “strongly agreed” that ChatGPT consistently provides them with misleading feedback. However, a lower rate (9%) “disagreed.” On the contrary, 15% of them were neutral, and respondents with the same proportion (15%) “strongly disagreed” with this claim. Additionally, 35% “disagreed” with the statement, representing 15 respondents.

To gain deeper insights into students’ preferences regarding the level of similarities and differences between teachers’ and AI-based feedback, the fourth statement was integrated. Accordingly, 3 respondents, representing 6%, suggested that ChatGPT feedback is to a high extent similar to the teacher’s feedback. Only 9 respondents, representing 26% of the sample, “agreed” with the statement. Six of them (18%) were “neutral,” while 12 respondents disagreed that ChatGPT and teachers’ feedback are identical. Moreover, 4 respondents (12%) “strongly disagreed” with the statement.

The last claim aimed to delineate the respondents’ level of confidence in AI feedback. Unsurprisingly, 0% of the respondents “strongly agreed” that they preferred and trusted ChatGPT feedback over teachers’ feedback. On the contrary, 9 respondents (26%) “agreed” with the statement. While 7 respondents (21%) were neutral, 13 (38%) disagreed, and 5 of them (15%) strongly disagreed with the same statement.

To elucidate the respondents’ attitudes toward the informativeness and ease of comprehension of AI-based feedback, the respondents were required to plainly delineate the extent to which ChatGPT feedback embraces all the criteria for assessment they need for the improvement of their writing. Regarding this matter, the respondents’ perceptions were thematically summarized as follows: The respondents affirmed that ChatGPT feedback is precise, detailed, and extensively explained. For some students, receiving exhaustive comments on their writing is required, where the feedback encompasses all aspects, including grammar, mechanics, organization, and lexis. Similarly, the respondents highlighted that ChatGPT focuses on all the mistakes. Teachers sometimes do not have time to provide detailed feedback for all students; hence, ChatGPT could be a helpful alternative. On the contrary, some of the respondents raised some issues. In particular, ChatGPT underestimated some key criteria, such as content, and providing detailed feedback may be confusing with little attention paid to the content and overall concepts. In addition, this tool often does not take into consideration the particularity of the writing context. Ultimately, the feedback may not satisfy students’ needs or meet the target criteria. The respondents further delineated that this AI tool is misleading; ChatGPT may incorrectly identify some linguistic forms and sentences as mistakes or errors.

Another question sought to yield information about the difficulties the respondents faced when using ChatGPT-based assessment on writing. Predominantly, the respondents stated that they faced problems in understanding the difficult terminology and technical, complex language of AI tools. In the same vein, the extended comments are confusing and misleading. Students may need only one aspect of a lengthy, extended feedback. Another issue is the inadequacy in grasping the objective of the feedback. ChatGPT often fails to grasp the context or the type of feedback that is needed, whether descriptive, evaluative, or constructive.

5. Discussion

The objective of this research is to examine the attitudes of EFL learners toward the use and effectiveness of ChatGPT-based feedback in writing. The findings demonstrated that the respondents were familiar with AI tools. Particularly, they exhibited significant recognition of the automated intelligence applications. This inference enhanced the likelihood of comprehending the research problem and promoted the informativeness of the data gathered. The respondents exhibited distinct familiarity, preferences, and usage patterns of artificial intelligence tools in learning English as a foreign language.

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Similarly, the results revealed that the AI tools used by EFL learners and researchers were mainly divided into three major areas: providing feedback and error correction, citation and referencing, and translation of difficult terminology and complex texts, along with access to free content. The results indicated that the highest rate of respondents (79%) rely on ChatGPT for practicing simulated conversations and text generation. Unexpectedly, none of the respondents mentioned using ChatGPT for feedback provision and error correction. Similarly, the majority of respondents (88%) declared that they are familiar with using ChatGPT for learning, while only four respondents, representing 12%, asserted that they are not.

These findings indicate that the respondents use ChatGPT for different learning objectives. However, they may encounter some difficulties throughout the process. Therefore, many of them prefer other tools for error correction. Symmetrically, others prioritize receiving feedback from the teacher or their peers. This same proportion may reflect the respondents' lack of awareness of the availability of AI tools for correcting written texts. According to (Genelza, 2024), ChatGPT models may give inaccurate or misleading outputs that leads to hindering learning rather than facilitating it. Therefore, addressing biases in AI models and content is crucial to prevent misinformation or societal prejudices from spreading in educational settings.

In the same vein, the respondents developed positive attitudes toward ChatGPT to scaffold their learning. Although all respondents were familiar with this tool, a lower proportion (12%) expressed that they rarely use it to support their learning. This group of respondents did not provide any information that may serve the objective of the study. On the other hand, the highest proportion of respondents holds a positive perception of the effect of ChatGPT in EFL learning. The results stipulated that ChatGPT supports learning by translating texts into the target language, providing direct access to information, generating instant feedback, and supporting automatic text analysis. Furthermore, the ChatGPT model is effective in generating texts and providing instant feedback.

Correspondingly, all the respondents who acknowledged their familiarity with ChatGPT developed positive views toward its effectiveness in terms of feedback provision and their overall learning. The responses revealed that ChatGPT is as accurate as the teachers' feedback, with 26% agreeing and 12% disagreeing. Likewise, the respondents' level of confidence in ChatGPT feedback was relatively high. These findings are in accordance with earlier research done by Kohnke et al. (2023), the findings indicate positive views of students towards utilizing ChatGPT, namely viewing it as a rapid and trustworthy translation machine that supports with overcoming English learning challenges.

The respondents expressed satisfaction with the informativeness and ease of comprehension of ChatGPT feedback. They found it precise, detailed, and extensively explained, covering all aspects of writing, including grammar, mechanics, organization, and lexis. This aligns with the findings of Baidoo-Anu and Ansah (2023) who assert that ChatGPT boosts teaching and learning. It offers benefits such as individualized and interactive learning, reminders for formative evaluation, and continuous feedback. However, the respondents noted that ChatGPT may underestimate key criteria, provide confusing feedback, and undermine the writing context. Additionally, they indicated that ChatGPT may be misleading, incorrectly identifying linguistic forms and sentences as mistakes or errors.

To delve deeper into the challenges respondents faced when using the ChatGPT-based feedback to assess their written products, they claimed that they had difficulty comprehending the complicated technical language and vocabulary used in AI tools. In a similar disposition, the lengthy comments offered by ChatGPT are generally confusing and inaccurate. Hence, understanding the goal of the feedback is another problem. This is due to the fact that this AI generative tool is based on a natural language processing model, which may misinterpret the context or the situation of the inserted text. Thus, the model misinterprets the type of feedback required. D'Mello et al. (2014) discovered that ChatGPT and other generative models cannot offer the same level of human interaction as a real instructor or tutor. The absence of human interaction

may negatively impact students who benefit from personalized instruction that aligns with their specific learning contexts and individual needs. Students who engaged with a virtual instructor that exhibited human-like emotive behavior performed better than those who did not.

The study's findings also align with Phuong (2024) results. Despite learners' apparent confidence in ChatGPT's competency as an automated translation, grammar checker, and paraphraser, it is important to note that students acknowledged that it has many limitations that hinder their learning. Similarly, according to Clark (2023) a generative model-based dialogue system fails to create contextually relevant replies during conversations. ChatGPT's capacity to execute difficult cognitive activities such as critical thinking and problem solving is limited.

6. Conclusion and Recommendations

This study investigated EFL learners' attitudes regarding ChatGPT-based feedback and its usefulness in improving their writing abilities. The findings demonstrated that a great majority of respondents were familiar with ChatGPT and had good attitudes of its involvement in their learning process. Respondents recognized its advantages, such as its capacity to translate texts, produce written material, provide rapid feedback, and do automated text analysis. These elements were praised for their effectiveness in enhancing several areas of writing, including grammar, mechanics, and organization.

However, the study discovered significant drawbacks to ChatGPT-based feedback. Some responders were concerned about the tool's occasional failure to offer contextually relevant feedback, as well as its proclivity to ignore essential components of writing, such as content depth and idea clarity. Furthermore, the lack of emotional involvement inherent in AI technologies was seen as a possible disadvantage for learners who prefer more individualized interactions with human teachers.

Despite these issues, ChatGPT was viewed well as a tool for improving writing abilities. Many responders found it useful for correcting errors and improving their comprehension of language structure. The study concludes that while ChatGPT can successfully supplement traditional feedback techniques, it should not completely replace human input. A balanced strategy that combines AI-based and human input may provide the greatest help for EFL learners.

This study demonstrates the potential of AI tools such as ChatGPT to aid with language acquisition, but it also emphasizes the need for further development to increase their contextual understanding and ability to provide more tailored feedback. Future study might focus on enhancing these tools and incorporating teacher feedback to boost their use in language acquisition.

Although the respondents affirmed their satisfaction and positive attitudes towards ChatGPT-based feedback along with using this tool to facilitate foreign language learning, many EFL learners are not sufficiently aware on the way ChatGPT can be effectively used in learning. Hence, this study suggests further research that may generate areas for improvement in the AI-based system in the way it fits the learners' proficiency levels in the language. Future research may be follow-up studies that discover the reasons behind the inadequate application of ChatGPT feedback amongst learners, shedding light on the potential future improvements. ChatGPT can be reprogrammed to meet specific learning skills and support individualised learning. Similarly, EFL students need to be educated about the potential usage of AI tools for the betterment of their language learning.

Moreover, Empirical studies are crucial for assessing the efficiency of ChatGPT in language acquisition. Researchers may compare language learners who used ChatGPT to those who did not to identify potential benefits and assess language competency measures such vocabulary, grammar, reading comprehension, and speaking skills. Future efforts should focus on evaluating the correctness and coherence of ChatGPT's generated text, as well as identifying and addressing possible biases or preconceptions, which can improve efficiency of using ChatGPT for language learning.

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