

Improving English language proficiency through text-based activities with the help of ChatGPT

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Abstract

The launch of ChatGPT has sparked a debate about the opportunities and risks of this Artificial Intelligence language model. In the field of education, ChatGPT offers several possibilities; however, before introducing this tool in the classroom, it is necessary to evaluate its advantages and limitations. In this article, we present the results of an empirical study in which a methodology has been designed for the development of linguistic competence in English through text-based exercises with the help of ChatGPT. Additionally, we conducted an analysis of the effectiveness of ChatGPT during the implementation of this methodology. Our methodological proposal includes several phases with exercises aimed at facilitating the acquisition of vocabulary and the practice of verb tenses. Furthermore, this methodology encourages autonomous learning and can be adapted to different educational contexts. We implemented our methodology in the university classroom with first-year students pursuing a degree in English Studies. The results of our analysis indicate that ChatGPT is an effective tool for creating text-based activities; however, its developmental stage leads to occasional errors, particularly in exercise correction. Therefore, while ChatGPT can support teachers' work, it cannot replace their role in the learning process.

Keywords

Educative innovation, artificial intelligence, linguistic competence, methodologies, ICT

Introduction

Currently, there is a wide range of studies investigating the use of Information and Communication Technology (ICT) in education from diverse perspectives. Some of them focus on teachers' perspectives on using ICT in educational settings, analysing the benefits and challenges they present (Shoraevna et al., 2021). Others explore whether ICT use in education results in better academic outcomes for students (Fernández-Gutiérrez et al., 2020). There is also research on the integration of ICT in higher education learning processes (Poveda-Pineda & Cifuentes-Medina, 2020). Díaz-García et al. (2020) investigate the connection between ICT skills, usage, and learning approaches among university students, emphasizing how these skills affect their study habits and learning techniques. Finally, Zhang et al. (2022) discuss the environmental implications of ICT, focusing on the educational sector in developing countries. However, the implementation of certain ICT resources remains a topic of debate. Due to their recent emergence, the long-term consequences of

their use are still uncertain. This debate has gained prominence in the media and society since the release of ChatGPT in late November 2022 (Hong, 2023).

The chatbot prototype developed by the OpenAI Artificial Intelligence Laboratory has attracted considerable attention from the media, primarily due to its ability to replicate human writing and reasoning. The potential risks associated with its misuse have been widely discussed (Rao, 2023; Whalen & Mouza, 2023). The controversy surrounding the launch of ChatGPT has also extended to the education sector, where concerns have been raised about students utilising this tool to generate tasks automatically (Oravec, 2023; Cotton et al., 2024; Lee et al., 2024). Despite the evident dangers of misusing ChatGPT, its versatile characteristics undoubtedly make it a valuable educational resource. Therefore, it is imperative to investigate both its limitations and potential applications in the educational domain, as well as the expected outcomes resulting from its use (García-Peñalvo, 2023).

This article presents a double approach to the application of ChatGPT in second language teaching. On the one hand, we have designed a methodology composed of activities based on texts that can be adapted to meet the needs and circumstances of users both within the classroom and in an autonomous learning context. On the other hand, we have conducted an empirical study to evaluate the efficiency of ChatGPT's answers when this methodology was implemented in the university classroom. As it will be seen, the results of our empirical study indicate that ChatGPT is an effective tool for creating text-based activities; however, its developmental stage leads to occasional errors, particularly in exercise correction. Therefore, while ChatGPT can support teachers' work, it cannot replace their role in the learning process.

Literature review

The use of ICT in English Language Teaching

Information and Communication Technologies (ICT) stand as a fundamental and indispensable element in today's global education landscape, and therefore, digital literacy has become an integral skillset for educators in the 21st century (Paudel, 2021). Undoubtedly, ICT serves as a valuable and innovative instructional tool, particularly in enhancing English as a Foreign Language (EFL) learning. Its rapid expansion has significantly influenced all facets of language teaching (Hafifah, 2020).

From our point of view, ICT is an incredibly useful tool in the field of education, particularly in language teaching. By using it correctly, students can gain easier access to information, benefiting from high-quality and engaging resources such as various types of videos (news, interviews, lectures, movies, tutorials, etc.), websites, audios, games, and quizzes. These resources can greatly assist teachers in preparing their lessons, as they enable them to update their knowledge and develop methodologies that encourage student participation, incorporate real-life materials, or simply offer a variety of content that makes lessons more engaging for students. These tools aim to increase student motivation and language awareness (Altun, 2015). Integrating ICT not only diversifies English teaching content, contexts, and methodologies but also fosters an interactive, adaptable, and inventive English language environment (Budiman, 2020).

ICT application in language teaching creates a student-centred learning atmosphere, allowing for diverse presentation styles and catering to individual interests. It extends learning beyond classroom boundaries, reducing teacher-centric approaches and encouraging students to actively engage in language practice as digital natives (Paudel, 2021). Jayanthi

and Kumar (2016) delineate the positive impacts of ICT on English Language Teaching (ELT) across multiple domains such as material accessibility, student attitudes, autonomy, authenticity, teacher support, student-centeredness, and self-assessment.

While ICT integration in classrooms offers numerous benefits, challenges also emerge. Teachers might encounter difficulties integrating technological tools into syllabi and curricula. Careful considerations are necessary before employing ICTs in EFL classrooms. Livingstone (2012, p. 12) emphasizes that ICT “may not suit all learners, situations, or purposes, requiring substantial learner training for effective use.” Issues like classroom management, limited teacher experience, aligning technological tools with course content, adapting activities to diverse learning styles, costs of tools and devices, and physical classroom constraints must be acknowledged beforehand (Cakici, 2016).

In order to achieve a successful application of ICT methodologies into the classroom, it is our opinion that the teacher must remember that ICT is a tool, not an end in itself, and consequently, must be used responsibly both in and out of the classroom. The role of the teacher has indeed evolved over recent decades, shifting from being the focal point of the educational process to acting as a guide in student learning. Nevertheless, this does not mean abandoning leadership or classroom management tasks. Teachers, drawing on their knowledge and experience, should determine the role of ICT in their teaching strategies, ensuring its use is purposeful and not just for making classes more entertaining. Furthermore, with ICT-supported methodologies, students can be taught to use technology for their learning and for their personal and professional growth. Therefore, it is essential for teachers to receive the necessary training and support to effectively and appropriately integrate ICT into the classroom.

Artificial Intelligence, Language Models and ChatGPT

The third-generation artificial intelligence (AI) language model, known as GPT-3 (Generative Pre-trained Transformer), was developed by the OpenAI laboratory and operates based on natural language processing (Brown et al., 2020). Language models are statistical tools that utilise contextual information to predict the next word in a sequence. The GPT-3 language model has been utilised for generating various types of texts, including academic articles (GPT-3 et al., 2023), stories (Lucy & Bamman, 2021), newspaper articles (GPT-3, 2020), and other forms of written content that are challenging to distinguish from human-authored texts (Elkins & Chun, 2020). While concerns have been raised regarding the potential misuse of GPT-3 technology for creating false news or manipulating public opinion, there are also proposals suggesting its use as a supportive tool for writers and content creators, as well as a means to automate or save time in generating repetitive content (Jaimovitch-López et al., 2022).

The introduction of ChatGPT and its rapid increase in user adoption has evoked mixed reactions (Roose, 2022; Cowen, 2022; Krugman, 2022). Within the educational realm, concerns have been raised about the potential threat posed by such tools to the development of critical thinking and writing skills among students, as well as their potential use in automatically generating tasks that students are required to complete (Hong, 2023). This apprehension has led to questioning the use of ChatGPT in educational institutions (Herman, 2022; Marche, 2022) and, in some cases, even its prohibition (Ropek, 2023).

Despite the controversy surrounding the launch of ChatGPT and the risks associated with its misuse, there is no doubt that its properties make it a highly valuable resource for enhancing student learning and supporting teachers in creating personalised resources.

However, before implementing its use in education, careful consideration of its limitations and characteristics is necessary (Zawacki-Richter et al., 2019; Celik et al., 2022). The potential for these models to be used detrimentally poses high risks that can influence all facets of society and culture. Hence, it becomes imperative to initiate educational and social awareness campaigns, as well as maintain vigilant surveillance and updated legislation. These measures are essential to protect the well-being of individuals and ensure the responsible utilization of AI (UNESCO, 2022). At the same time, it is not advisable to ignore the existence of such tools or direct efforts towards their prohibition. Instead, it should be understood that these tools could contribute to improving teaching and learning processes, such as critical analysis and evaluating information sources. To achieve this, teachers and students should be provided with information and strategies for the appropriate use of AI, controlling and guiding its use similar to other tools like calculators or digital devices (García-Peñalvo, 2023).

AI Language Models and education

In recent years, there has been a growing interest in exploring how language models, such as ChatGPT, can transform education. Researchers have studied the use of these models to create interactive materials such as quizzes and flashcards (Dijkstra et al., 2022; Gabajiwala et al., 2022). This not only helps teachers automate quiz creation but also gives students useful tools to reinforce what they are learning, become more engaged, and prepare for exams more efficiently. In specific domains, researchers have investigated applications of ChatGPT in a variety of fields, such as computer science education (MacNeil et al., 2022), within a data science course (Bhat et al., 2022), or in the context of the United States Medical Licensing Examination Review (Kung et al., 2022).

A fundamental aspect of integrating AI into education involves evaluating teachers' attitudes toward these tools. The studies by Polak et al. (2022), Ayanwale et al. (2022), Choi et al. (2023), and Chocarro et al. (2021) emphasize the fundamental role of interest, digital skills, and pedagogical orientations of teachers in the integration of AI-based technologies in educational environments. Recent research from the educators' point of view has mainly focused on automated assessment, adaptive feedback mechanisms, and the generation of teaching content (Moore et al., 2022). For example, Bernius et al. (2022) successfully reduced grading efforts through AI-generated feedback for student responses, improving perceived quality and accuracy, while Sailer et al. (2023) explored AI feedback to diagnose students' learning difficulties.

However, despite these promising advances, it is important to highlight that the application of chatbots in education remains nascent (Lo, 2023). Few empirical studies have investigated in-depth the effective learning designs or strategies facilitated by these models. Furthermore, while conversational agents have made significant progress, they still have not reached human performance in effectively helping students (Tack & Piech, 2022). This underscores the imperative for continued research to close this gap and maximize the potential of ChatGPT and similar models in educational settings (Jalil et al., 2023).

According to Baidoo-Anu and Ansah (2023), the integration of ChatGPT in education offers various advantages and drawbacks. On the positive side, ChatGPT facilitates personalized tutoring by tailoring feedback and guidance to individual student needs and progress. Additionally, it streamlines the process of grading student essays, freeing up educators' time for focusing on other aspects of teaching. Moreover, it enables interactive and adaptive learning experiences, fostering student engagement and adjusting teaching methods based

on their performance. However, employing ChatGPT in education also poses several challenges. One notable drawback is the lack of human interaction, as these generative models cannot replicate the nuanced interactions provided by real teachers or tutors. Furthermore, the limited understanding of concepts and potential biases derived from the training data can impede the model's effectiveness and accuracy. Additionally, these models may lack creativity and context understanding, resulting in responses that are limited in originality and relevance (Ray, 2023).

The use of ChatGPT in English Language Teaching

As this article will illustrate, language models, specifically ChatGPT, can be highly useful tools when working with written texts. They can assist in reviewing, correcting, translating, or drafting various texts quickly and with high quality. Additionally, they can support language learning by providing information, generating exercises, and offering corrections or suggestions for improvement.

ChatGPT has emerged as a multifaceted asset in the field of English language education, assuming various relevant roles. Jeon and Lee (2023) highlight its versatility as an interlocutor, empowering teachers to orchestrate immersive language experiences through role-playing features. It not only acts as a content provider, generating tailored materials and imparting cultural insights but also operates as a teaching assistant, aiding students by serving as a grammar checker, online dictionary, and facilitator of background knowledge.

However, as our findings and previous research indicate, ChatGPT still has limitations that discourage its indiscriminate use for educational purposes. There are concerns about an excessive dependence on ChatGPT potentially stifling students' creativity and critical thinking skills (Kasneci et al., 2023). To counter this, scholars emphasize the importance of AI serving as a facilitator rather than a replacement for teachers (Kim et al., 2022; Xu & Ouyang, 2022), underscoring the significance of educators maintaining an active role alongside AI integration. According to Jeon and Lee (2023), teachers must adapt by managing resources judiciously, transforming students into active investigators, and addressing ethical considerations. This involves skilful resource management, promoting active learning through effective questioning, and instilling ethical guidelines for responsible AI interaction.

Moreover, ChatGPT's utility in language learning extends to vocabulary acquisition, material customization, and skill enhancement. Kohnke et al. (2023) emphasize its role in defining unfamiliar words, tailoring dialogues to different proficiency levels, and explaining vocabulary in native languages. The model's adaptability allows for the generation of dialogues suited to various proficiency levels, fostering differentiation and personalization in learning (George & George, 2023).

While ChatGPT aids in creating authentic language examples, generating comprehension questions, and enhancing writing skills (Warner, 2023), it is still necessary to be cautious due to occasional misleading information resulting from its unsupervised learning nature (Borji, 2023). Nevertheless, its ability to personalize practice exercises based on learners' needs, interests, and objectives significantly contributes to improving language abilities and motivation (Farrokhnia et al., 2023).

It is therefore up to educators to explore the potential applications of ChatGPT and other AI-based tools in their classrooms. A proper implementation of these tools can enhance student motivation by enabling a more personalized learning experience that aligns with students' knowledge and interests and promotes participation. However, there is a risk that

this tool could be used in a harmful way, both within the school environment and outside of it. Therefore, it is necessary to conduct thorough research on the possible applications of AI-based tools and to promote a productive, responsible, and transparent use that does not replace the students' own work, but rather facilitates it and allows them to advance in their knowledge and skills.

The Role of Text-Based Exercises in Foreign Language Acquisition

Text-based exercises play a crucial role in the process of acquiring a second language (Paribakht & Wesche, 1993; Nuttall, 1996; Harmer, 2008; Hudson, 2009). Consequently, it is common for teachers to select or create reading materials with various interconnected objectives: fostering students' enjoyment of reading, facilitating the acquisition of new vocabulary and other language elements, and developing fluency in the second language (Pichette, 2005).

For text-based activities to be effective, several requirements must be met. Firstly, it is essential to recognize that reading should be an active endeavour rather than a passive one. Students need to engage with the text and go beyond its surface, comprehending both the content and the contextual framework. Thus, the tasks related to the text should be designed to capture students' attention and stimulate their interest. A variety of texts should be integrated into the methodology and content of the course, serving as a foundation for discussions or for working on syntactic, grammatical, or vocabulary aspects (Mulatu & Regasa, 2022).

If the aim is to enhance language learning through texts, it is crucial to ensure that the materials used meet the necessary requirements for an effective learning process. These materials should stimulate interaction, foster the development of learning skills and strategies, enable students to focus on both form and function, and be engaging, flexible, and authentic (Nabijanovna et al., 2021). Authentic texts, which are extracted from real-world sources and not created solely for teaching purposes, increase student motivation, reflect language usage changes, and offer variety and versatility in developing different skills. Working with such materials allows students to encounter natural language rather than artificial language commonly found in the classroom. Although this may increase the task difficulty, it tends to be more effective in capturing students' attention, arousing their interest, and ultimately enhancing the learning process (Berardo, 2006).

Objectives

The advancement of ICT has facilitated teachers' task of creating appropriate materials to work on various language aspects that are also interesting for students. However, preparing such materials requires a significant investment of time, as it involves selecting suitable texts and designing accompanying activities. Additionally, considering the large number of students typically present in classrooms at all educational levels, it becomes challenging for teachers to individually assess the quality of each student's responses or provide extensive support to extract the maximum benefit from each text.

In this paper, we address this situation with a study, which has two objectives. Firstly, to provide guidelines for designing text-based methodologies for learning English through ChatGPT. In order to achieve this goal, in the following sections, we suggest a diverse range of exercises that fulfil the requirements mentioned earlier, without imposing an increased workload on teachers. Consequently, these activities can be implemented more frequently.

It is important to note that these methodologies are adaptable for implementation both in the classroom and in autonomous learning contexts. The second aim of our study is to evaluate the efficiency of ChatGPT when implementing a text-based methodology. Thus, we intend to contribute in the ongoing research aimed at maximizing the potential of ChatGPT and similar models in educational settings (Jalil et al., 2023).

Methodology

In this section, we will explain how the two objectives of our research have been addressed. Firstly, we will clarify the framework that was established for the design of English learning methodologies through text-based activities with ChatGPT. The second objective is to explore how ChatGPT can be used to implement these methodologies in the classroom. A case study was conducted to illustrate this process, which will be detailed below.

Design

When creating our list of text-based activities, which can be found in section 5.1, the intention was that they could be easily tailored to suit the specific requirements and objectives of different courses. Therefore, they can be adapted to the preferences of the teachers and the circumstances of the participants.

As mentioned in section 2.5, text-based activities must fulfil some requirements in order to be effective. The selection of texts that will serve as the foundation for the activities is of utmost importance (Nabijanovna et al., 2021). Several factors need to be considered, including the students' age, English proficiency level, and interests, as well as the course objectives, themes, text types, and language elements to be practiced. Various sources can be utilised based on these factors, such as online newspapers, websites, blogs, social media, and encyclopaedias. Texts can be selected by the teacher or by the students, depending on the characteristics of the subject and the preference of the teacher.

In this way, the requirement of authenticity is met (Berardo, 2006), providing students with the opportunity to work with more natural texts that can better capture their attention and spark their interest. The activities designed from these texts should promote deep reading, focusing on both form and content (Nabijanovna et al., 2021). They should facilitate student interaction with the text and the development of linguistic skills, working on vocabulary, grammar, and the structure of sentences, paragraphs, and the text as a whole (Mulatu & Regasa, 2022).

ChatGPT is intended to be used with authentic texts, extending learning beyond classroom boundaries and reducing teacher-centric approaches (Paudel, 2021). By allowing students to select texts and instruct ChatGPT to provide information, generate and correct exercises, it encourages active engagement in language practice as digital natives. In this way, teachers' workload is not increased. Additionally, ChatGPT fosters an interactive, adaptable and inventive English language environment (Budiman, 2020).

Participants

The methodology explained in 5.1. was implemented during the 2022-23 academic year in two groups of the English 2 course, comprising 86 participants in their first year of the English Studies degree at the University of Valencia. This degree includes subjects within the field of linguistics, literature, foreign language acquisition and cultural studies. Throughout four courses, students have to pass eight English Language subjects, which go from a B2

level according to the Common European Framework of Reference for Languages (Council of Europe, 2001) in the subjects English 1 and 2 to a C2 level in the subjects English 7 and 8. A high number of English Studies' alumni work in education as English teachers in different educational levels and institutions.

Instruments

Although there are currently various language models, ChatGPT was chosen due to the popularity that this tool has obtained as a consequence, at least in part, of the controversy that aroused its launch and which was echoed by a large number of media outlets (Muskat, 2023; Peritz, 2022).

Students used various digital devices (laptops, tablets or mobile phones) to do the activities and upload them to the digital platform of the university. Additionally, participants were provided with a document with instructions on how they should interact with ChatGPT.

Procedure

The methodology that will be further described in the results section was implemented during one of the English 2 classes, which last one hour and fifty minutes.

Analysis

In order to collect all the data, at the end of the class, each student exported their selected text and the content of their interactions with ChatGPT into a Word document, and subsequently submitted it to the university's digital platform. Each document included the selected texts, all the prompts introduced by students and the answers, exercises and comments generated by ChatGPT.

The data were analysed by the researchers, who manually reviewed and evaluated the quality of ChatGPT's responses to students' instructions. During this phase, the researchers assessed the accuracy of ChatGPT's responses by calculating the percentage of correct information provided for each task. A response was deemed valid if at least 80% of the information provided was correct. For example, if the task was to extract collocations from a text, 80% of the items identified by ChatGPT needed to be valid collocations, since occasionally non-collocational word constructions were included. This evaluation criterion was applied consistently across all tasks.

Ethical considerations

The study adhered to fundamental ethical standards to ensure respectful and fair treatment of participants. Students were informed that the methodology was part of a research project on the application of ChatGPT in English language learning, and their participation was entirely voluntary. The exercises completed during the study were securely stored by the instructors, and no data was shared with external parties. To preserve anonymity, all data presented in the research was anonymized, with no identifiable information retained or disclosed.

The interactions with ChatGPT were conducted strictly following the guidelines set by the instructors. Participants were made aware that ChatGPT's outputs required human oversight to ensure their accuracy and reliability. These steps were taken to address any potential errors or biases in the AI's responses and to highlight the importance of critical evaluation. These measures were designed to uphold ethical principles and ensure the integrity of the research process.

Results

As previously mentioned, our work has two objectives: to provide guidelines for designing text-based activities with the assistance of ChatGPT, and to explore how ChatGPT can be used to implement these activities in the classroom. Firstly, we will present the results of the study conducted to address both objectives.

Creating text-based methodologies with ChatGPT

This section explains a methodology resulting from the process of designing text-based activities that can be conducted with the assistance of ChatGPT. This methodology can be modified based on the characteristics of the participants and the course objectives.

The first phase of the methodology focuses on vocabulary acquisition and practice (Schmitt & Schmitt, 2020; Kohnke et al., 2023). This phase is divided into three steps, each targeting different language units: single words, collocations, and phrasal verbs (Beltramino et al., 2018). In the initial step, students should input the selected text into ChatGPT and conduct various activities. First, students must prompt ChatGPT to extract relevant vocabulary from the text and categorize it based on semantic fields, providing a definition for each word. Then, students should request synonyms from the assistant for the words collected within specific semantic fields or those with unknown meanings. To optimize these activities, students should select words for further study considering factors such as semantic field, relevance, or difficulty. After this selection, students must ask the assistant to provide different contexts for each of these words, aiding them in understanding their meaning and usage. Moreover, the assistant can generate various types of exercises (e.g., fill in the gaps, choose the correct option, matching, etc.), and offer corrective feedback on students' responses.

In the second step of the first phase, students should direct the assistant to extract collocations found in the text and classify them based on their structure, specifically the grammatical category of the constituent terms (Bui, 2021). Once the results are obtained, students must request a brief explanation of the appropriate usage of these collocations, along with usage examples for each of them. In cases where a substantial number of results are obtained, students should select the most relevant collocations based on criteria such as theme, difficulty, or frequency of use. Subsequently, students must prompt ChatGPT to generate exercises to practice using these collocations. For example, students might match the different elements of the collocations and use them to complete sentences, or match collocations with their meanings and then complete sentences with appropriate collocations.

In the last step of the vocabulary acquisition phase, students must ask the assistant to extract the phrasal verbs it finds in the text. Afterwards, students should request definitions for each phrasal verb and examples of how to use them (Al-Otaibi, 2019). As in the previous steps, students should select those phrasal verbs that are most relevant based on the learning context and ask ChatGPT to generate activities to practice them. The activities should be similar to those generated for practicing the use of collocations.

In the second phase, students should shift their focus towards practicing different verb tenses (Listia & Febriyanti, 2020). Initially, students must request the assistant to extract an example of each verb tense found in the text. Additionally, they should ask it to extract all instances of a specific tense or modify the text, or a portion of it, using a particular tense. Subsequently, students must task the assistant with creating text-based activities that require them to correctly place verbs, given in parentheses, in the appropriate tense.

The purpose of the third and final phase of the methodology is to reinforce the vocabulary and verb tenses covered in the previous phases through the use of new texts and a self-assessment exam. ChatGPT enables interactive and adaptive learning experiences,

fostering student engagement (Baidoo-Anu & Ansah, 2023). To achieve this, first, students must ask the assistant to create a text incorporating the selected words, collocations, and phrasal verbs from the first phase while employing the desired verb tenses (Warner, 2023). This approach ensures that the studied concepts are revisited within a fresh context. This request can be repeated as necessary, with ChatGPT generating different texts that meet the specified requirements. Subsequently, students must prompt ChatGPT to generate a quiz that allows for practice of the selected vocabulary and verb tenses.

Each student can complete the activities independently, provided they have access to a digital device such as a computer, tablet, or mobile phone. Alternatively, activities can be implemented in the classroom if a computer and projector are available. However, it is important to acknowledge that the effectiveness of these tasks will be maximised when students can engage in them individually.

Evaluating ChatGPT's efficiency when implementing a text-based methodology During the exploration phase of ChatGPT's potential applications for text-based learning, several activities were tested in addition to the ones explained in the methodology. However, the results of these additional activities did not meet the required quality and, therefore, were not included in our proposal. For instance, attempts were made to work on the use of prepositions, which often pose challenges for students (Lorincz & Gordon, 2012). However, the assistant's responses were not satisfactory. While the assistant could extract prepositions from the text and provide examples of some, it offered incorrect answers when asked to extract all sentences in which a specific preposition was used. As shown in Figure 1, similar issues were encountered when attempting to work with grammatical structures such as negative sentences, questions, conditionals, and others, leading to the exclusion of these activities from the methodology.

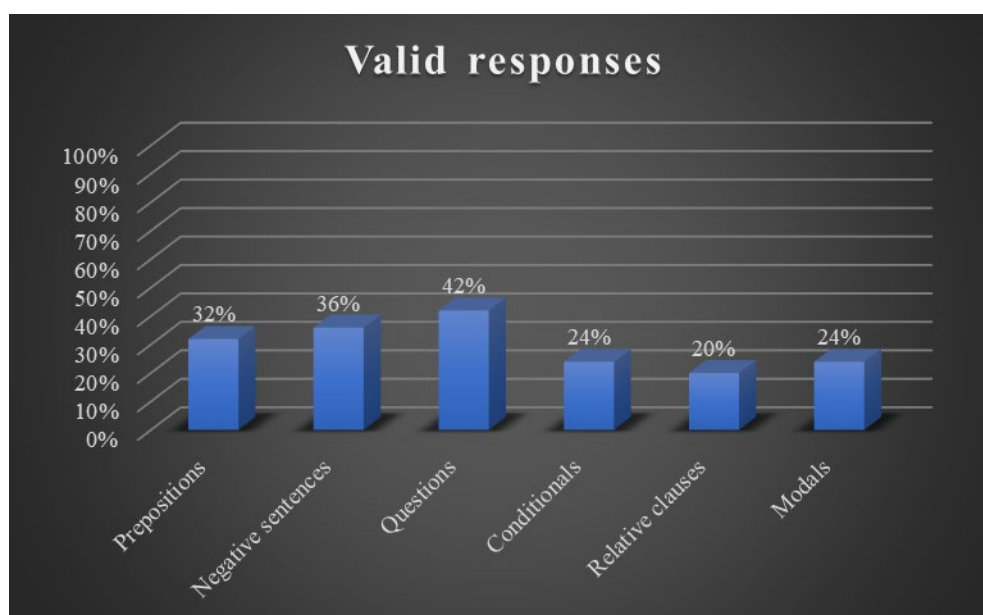


Figure 1: ChatGPT tasks with low validity rate.

In Figures 2-6, it can be seen that the validity rate in the interactions exceeded 90% in most steps of the first phase of the methodology and almost reached 100% in the third phase. However, these results were significantly lower when students asked ChatGPT to correct their answers to the exercises that it had created in each of the steps of the methodology.

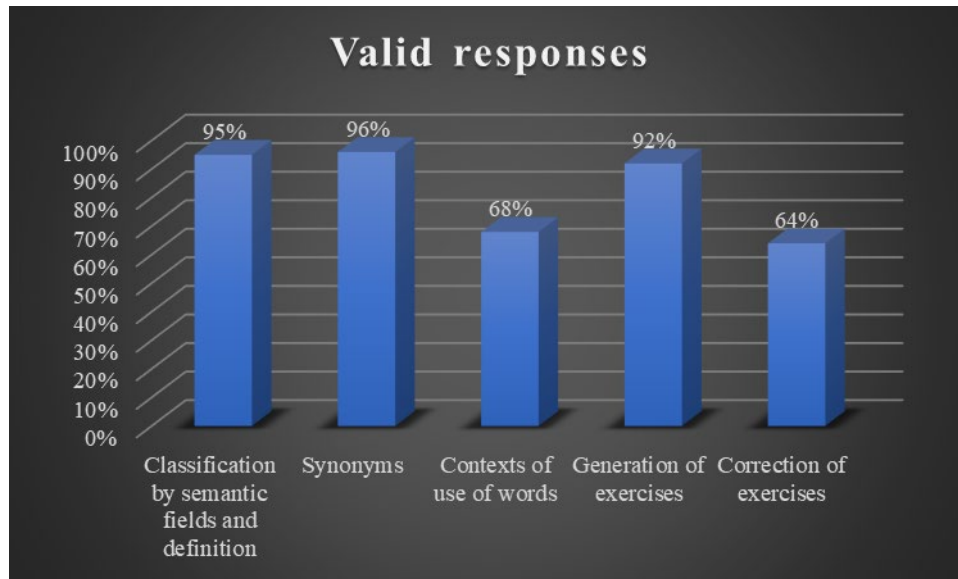


Figure 2: Quality of interactions with ChatGPT in step 1 of phase 1.

The least successful interaction in Phase 1 occurred when students asked the assistant to provide context for the use of selected words. This lower validity rate can be attributed to the less direct and concise instructions given to the assistant compared to other interactions. This limitation should be considered when working with ChatGPT: to obtain the expected results, prompts must be written with clarity and precision, as it does not always interpret them in the way a human would.

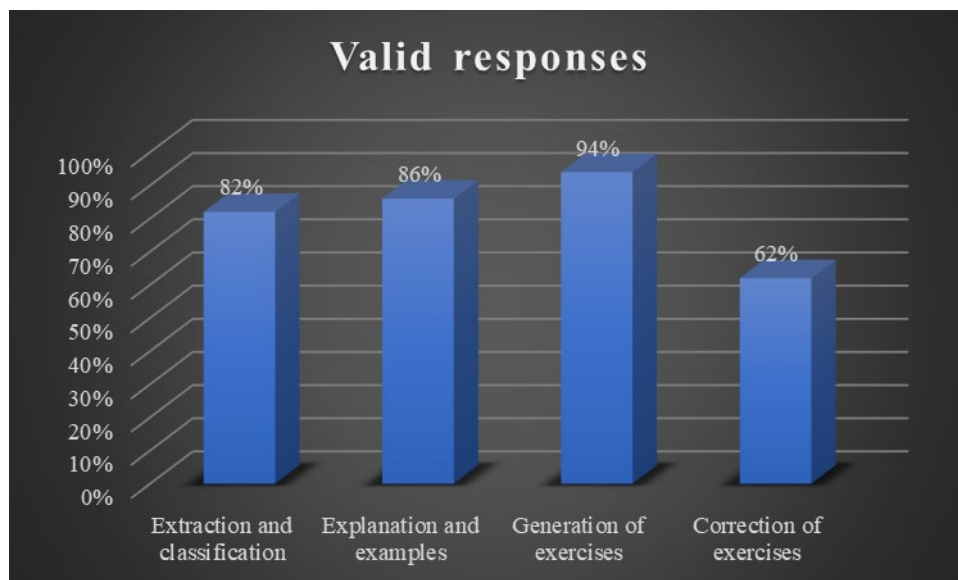


Figure 3: Quality of interactions with ChatGPT in step 2 of phase 1.

As depicted in Figures 3 and 4, ChatGPT is highly effective in extracting, classifying, explaining, and generating exercises related to collocations and phrasal verbs. English-speaking people frequently use these two elements and sometimes it is difficult for learners to master them, therefore, ChatGPT can help them to better understand and use them.

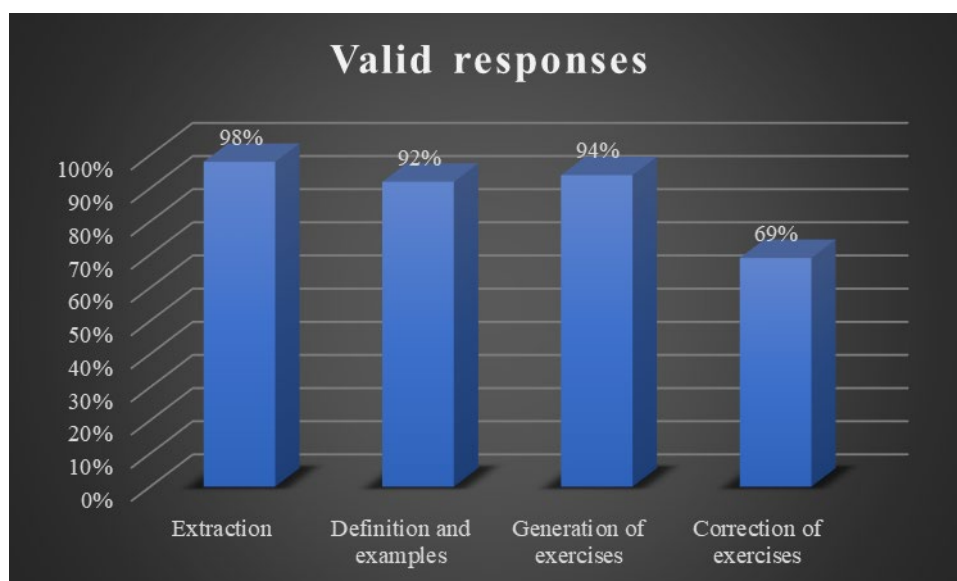


Figure 4: Quality of interactions with ChatGPT in step 3 of phase 1.

In Figure 5, it is evident that the quality of interactions in the first two activities of phase 2 was somewhat below average. As mentioned earlier, ChatGPT's performance is less efficient when tasked with activities related to verb structures. In the first task of phase 2, ChatGPT consistently omitted some of the tenses used in the texts, although it correctly identified all the tenses it encountered.

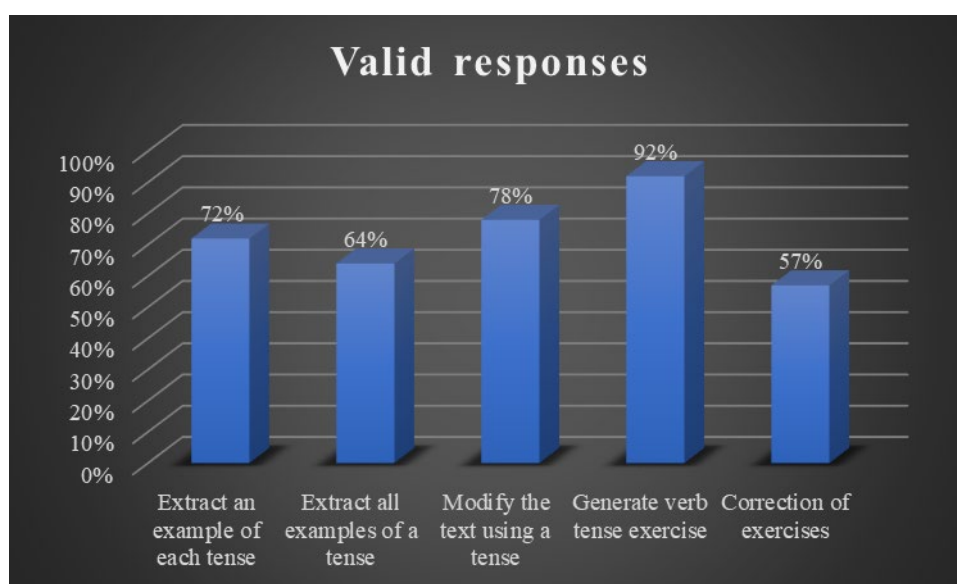


Figure 5: Quality of interactions with ChatGPT in phase 2.

The errors observed in task 2 of phase 2 encompassed both the omission of certain examples of the selected verb tense and the inclusion of verbs in a different tense than the one indicated. As it can be seen in Figure 6, ChatGPT is highly effective at generating texts and exercises following the user's instructions. Therefore, it can greatly assist in the language learning process by providing opportunities for practicing grammar and vocabulary with various text types. However, students' answers must be supervised by teachers, since the validity rate is not high enough to completely trust this task to ChatGPT.

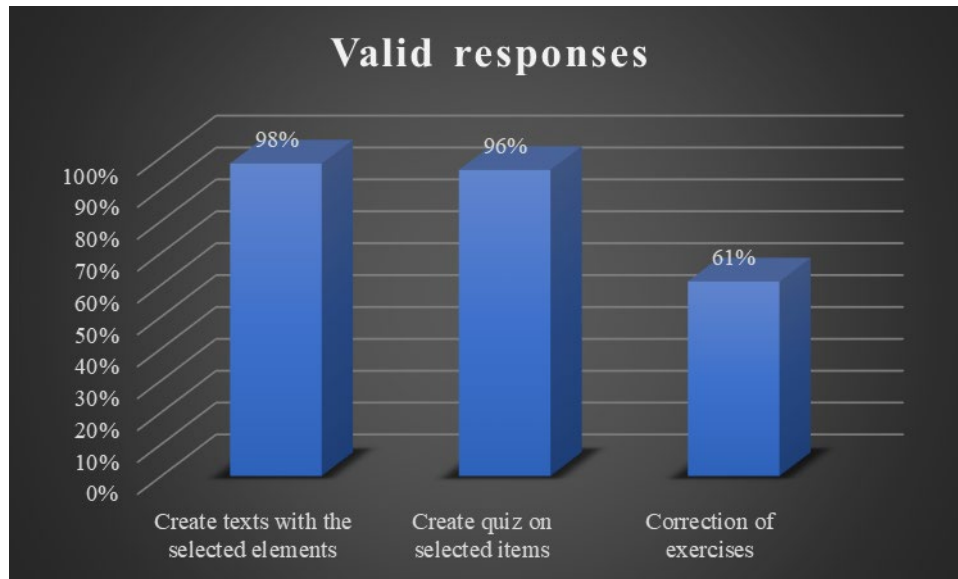


Figure 6: Quality of interactions with ChatGPT in phase 3.

The exploration of ChatGPT's potential applications and the implementation of the methodology show that while this tool is versatile, it is still in the developmental stage, leading to occasional incorrect responses (Wu et al., 2023). Nonetheless, this fact should not deter a supervised use of ChatGPT or similar tools as educational resources, as they offer significant advantages for students.

Discussion

The results presented in the previous section highlight the potential of ChatGPT as a tool for engaging with text-based exercises both inside and outside the classroom. ChatGPT allows for flexible interaction with various types of text, offering many opportunities for teachers and students to access real materials without requiring excessive time investment. Furthermore, it provides immediate feedback, which can support the learning process by guiding students in their use of language. Its versatility also fosters personalized learning, enabling students to focus on particular areas of language that they find more challenging or wish to explore further (Baskara, 2023; Kim et al., 2022).

This study was conducted within a particular educational setting: first-year students enrolled in the English Studies degree programme at the University of Valencia, with a B2 proficiency level in English according to the Common European Framework of Reference for Languages. The methodology was implemented during a single class session, followed by independent student engagement with ChatGPT, with clear instructions provided by their instructors. Given the specific nature of the context in which the study was carried out, including the students' academic background and access to digital devices, the results cannot be generalized to other groups or settings. Nevertheless, the study underscores how such an approach could be beneficial in similar contexts, particularly where students are familiar with digital tools and have sufficient language proficiency to engage with the platform effectively. Future research could investigate how this methodology might be adapted for different educational environments, proficiency levels, or classroom dynamics.

It is important to emphasize that while ChatGPT can be a valuable complement to teaching methodologies, it does not replace the need for educators in preparing tasks or assessing student progress. The tool is still evolving and, while offering potential benefits,

it does not provide the comprehensive support that an educator's guidance and evaluation can offer (Wu et al., 2023). Thus, the use of ChatGPT should be considered an aid, rather than a substitute, for educators (Borji, 2023). In light of this, it is recommended that students using the tool possess sufficient language proficiency to make effective use of it, to revise their queries, to identify errors, and to corroborate the information provided by ChatGPT using other resources.

Recent literature has explored various applications of ChatGPT in education (Kasneci et al., 2023), especially in the context of second language acquisition (Kohnke et al., 2023). However, few studies have addressed the implementation of specific methodologies within classroom settings or evaluated the quality of the results produced by ChatGPT. Our study contributes to advancing understanding of the potential applications of ChatGPT in English Language Teaching, particularly by evaluating its role in supporting specific learning tasks and addressing the context within which it was applied.

Finally, caution must be exercised when integrating AI-based applications like ChatGPT into educational practices. As discussed earlier, while these tools offer promising opportunities, they also present challenges and risks when used inappropriately. The European Union has already initiated steps to regulate AI, considering the various risks involved and ensuring that its use remains responsible and ethical (European Council, 2023).

Conclusion

The methodology proposed in the previous section facilitates student engagement with the text and supports the improvement of their English language competence. Moreover, these activities, due to their variety and participatory nature, have the potential to capture students' attention and stimulate their interest (Mulatu & Regasa, 2022). The versatility of ChatGPT enables teachers to incorporate any text into their classes, making the materials more suitable for promoting the development of linguistic competence due to their flexibility and interest.

In recent decades, the field of education has been significantly influenced by the advancements in ICTs, which now play a vital role in our educational system. Therefore, despite the risks associated with any technology's potential misuse, it is not advisable to disregard the latest developments in AI or systematically prohibit their use. Instead, it is necessary to explore the possibilities offered by new technological tools and leverage them in the service of learning processes.

This work presented a methodological proposal, which has already been implemented, aiming to enhance the development of linguistic competence in English through text-based activities with the assistance of ChatGPT. Our proposal encompasses a wide range of activities that are engaging for students and contribute to the process of learning second languages. By utilising tools such as ChatGPT effectively, teachers can create impactful resources and implement innovative methodologies without excessive time investment.

This research represents a contribution to the study of AI's utilisation in the educational domain. It should be supplemented by further methodological proposals and studies evaluating the effectiveness of these methodologies and the digital tools integrated within them.

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