



Chat GPT in Constructivist Language Pedagogy: Exploring Its Potential and Challenges in Legal Vocabulary Acquisition

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Abstract: The advent of advanced artificial intelligence (AI) technology, represented by ChatGPT, has ushered in new possibilities in the realm of language learning and teaching. This pre-application pedagogic position study delves into the potential benefits and associated challenges of employing ChatGPT as a potent pedagogical instrument for the acquisition of legal vocabulary. The proposed pedagogy is based on the authors' primary experiences with the use of ChatGPT for their personal and pedagogical purposes and an unsystematic application of the pedagogy in EAP classes for undergraduate students at a law school of a university in Bangladesh. Our pre-application proposed innovative ChatGPT-mediated approach to vocabulary instruction is theoretically grounded in constructivism in language teaching and (web) technology in constructivist language pedagogy. The proposed pedagogy utilizes online newspapers with legal terminology, creating an interactive learning environment that encourages active participation and covers pronunciation, meaning, and spelling. It leverages primary language word definitions, refines pronunciation, fosters bilingual comprehension, and enhances spelling proficiency, offering a comprehensive learning experience. However, the study also predicts that the implementation of ChatGPT-based language instruction may involve challenges related to educator proficiency, student participation, resource limitations, and technology requirements. This study not only underscores the value of ChatGPT in language education but also paves the way for future research and innovation in the field.

Keywords: ChatGPT, AI, Vocabulary, Law, EAP.

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Introduction

Looking back, Chatbots have been explored in education since the early 1970s ([Huang et al., 2022](#); [Kim et al., 2022](#)). These have also been explored as useful for language learning and teaching. From what [Kohnke et al. \(2023\)](#) explain, “rich input is essential for successful second language acquisition (p. 538) and they agree with other researchers that AI-driven chatbots can offer linguistic exposure and daily conversational exercises ([Huang et al., 2022](#)), and ignite the enthusiasm of language learners, ([Fryer et al., 2019](#); [Gallacher et al., 2018](#); [Kohnke, 2022](#)). Moreover, AI-driven chatbots can perform initial assessments and deliver prompt feedback ([Huang et al., 2022](#); [Kuhail et al., 2023](#)), and these aspects are crucial elements in the effective process of language learning ([Kohnke et al., 2023](#)).

The potential for ChatGPT in education ([Limna et al., 2023](#)), scholars and students ([Firat, 2023](#)) in general, and more specifically in language learning has now been widely opened with the emergence of the latest, more advanced AI tool, ChatGPT. Although empirical data-based findings and evidence are yet to be established, researchers in the field of language learning and teaching have begun to conceptualize the potential, implications, and dimensions of ChatGPT for language learning and teaching in educational settings (e.g., [Kohnke et al., 2023](#); [Baskara, 2023](#); [Bin-Hady et al., 2023](#)). These studies commonly emphasize the potential of ChatGPT to offer significant opportunities for educators and educational institutions to enhance second/foreign language instruction ([Hong, 2023](#)) and discuss how ChatGPT can be employed to foster the development of learners' language skills and how to address a range of associated concerns ([Bin-Hady et al., 2023](#)). Therefore, more specific investigations into how ChatGPT can facilitate the acquisition of particular sub-skills of language are still in the conceptualization stage. For instance, the focus on how ChatGPT can support vocabulary learning among undergraduate students for academic purposes has yet to be addressed. This conceptual paper represents the initial conceptual standpoint regarding the pedagogical strategies for integrating ChatGPT into the teaching and learning of legal vocabulary for undergraduate law students.

The paper is anticipated to make a valuable contribution to the field of English Language Teaching (ELT) by presenting initial ideas on harnessing ChatGPT as a versatile and valuable tool for EFL pedagogical possibilities. Furthermore, it is expected that this paper will pave the way for researchers to further theorize and explore the integration of ChatGPT in ELT research. Our conceptual discussions revolve around the following two research questions:

- 1) What pedagogical strategies are effective for teaching and learning legal vocabulary through the integration of ChatGPT?
- 2) What potential challenges might arise when using ChatGPT in vocabulary learning?

Characterizing ChatGPT for Language Teaching

ChatGPT is the most recent large language model (LML) and the most advanced and state-of-the-art chatbot ([Rudolph et al., 2023](#)). According to [Kalla and Smith \(2023\)](#), it is built upon various layers of transformers designed to process natural language text and generate coherent, human-like outputs. It is fed with a substantial corpus of text data, enabling it to learn patterns and relationships between words, phrases, and sentences. ChatGPT can perform tasks such as language translation and content generation across various genres and categories. These language task performance capabilities of ChatGPT hold significant potential for use as a tool in language teaching, offering assistance to both teachers and learners engaged in similar language generation tasks during the language acquisition process ([Lambert et al., 2017](#)). Consequently, ChatGPT is notably poised to enhance language learning by combining human language generation capacity with its 'artificial language generation ability' ([Reiter & Dale, 1997](#)).

In its content generation function, ChatGPT engages in conversations with human users. The interaction typically begins with a human user inputting a prompt or question to ChatGPT, and ChatGPT responds with a written response. The conversation can then continue with additional inputs from the human user and subsequent responses from ChatGPT. This process operates within the theoretical framework of "reinforcement learning" ([Kaelbling et al., 1996](#); [Li, 2017](#); [Arulkumaran et al., 2017](#); [Wiering & Van Otterlo, 2012](#); [François-Lavet et al., 2018](#)), an artificial learning system that learns under the guidance of a knowledgeable teacher who instructs the system on how to respond to a set of training stimuli ([Barto, 1997](#)). The conversational capability of ChatGPT naturally lends itself to supporting communicative language teaching, where it can participate as an artificial interlocutor and also provide materials for its human counterparts for language teaching e.g., vocabulary teaching. Therefore, this study presents a perspective on ChatGPT's potential for teaching legal vocabulary to undergraduate law students.

Capturing ChatGPT and Language Teaching in the Literature

Globally, ChatGPT is now being recognized as a novel dimension in language teaching ([Bin-Hady et al., 2023](#)). Numerous broad viewpoints have emerged concerning the potential implications of ChatGPT and the potential challenges it may pose in the context of language instruction, as evidenced by studies like [Kohnke et al. \(2023\)](#), [Hong \(2023\)](#), and [Baskara \(2023\)](#). These studies primarily adopt a general approach to examining ChatGPT in language teaching, offering generic comments on its advantages and disadvantages. However, only a limited number of studies have delved into the specific aspects of ChatGPT's potential to enhance particular language skills. Some of these studies have concentrated on exploring and assessing ChatGPT's role in teaching writing. [Santos et al. \(2023\)](#), for example, illustrate the utilization of ChatGPT as a support tool for teaching English as a second language in the context of writing instruction. The researchers propose a method involving the application of Bloom's updated framework ([Anderson et al., 2001](#)) to direct the integration of ChatGPT throughout different phases of the writing process. Another study by [Kim et al. \(2022\)](#) investigated the potential of ChatGPT as a tool for language education. They assessed ChatGPT's effectiveness in two specific areas: its capacity to contribute to the design of language courses and its suitability for implementing TBLT (Task-based Language Teaching)-based writing instruction. Their findings indicated that ChatGPT exhibits promise as a language teaching aid, albeit with some notable constraints. Notably, the existing ChatGPT literature has not delved into the realm of vocabulary instruction, which constitutes one of the two fundamental components of effective writing. Writing instructors must possess proficient skills in teaching both vocabulary and grammar ([Coxhead & Byrd, 2007](#)), with vocabulary instruction playing a crucial role in academic writing ([Hinkel, 2003](#)). This study, therefore, distinguishes itself by examining the potential of ChatGPT's being used for multimodal pedagogical purposes in the specific context of teaching legal vocabulary to undergraduate law students while incorporating English newspapers. Thus, the present study redirects the focus of ChatGPT literature toward the teaching of a specific language sub-skill, namely legal vocabulary.

Theorizing the Proposed ChatGPT-Integrated Vocabulary Teaching

This study is grounded in constructivism in language learning ([Suhendi, 2018](#); [Kaufman, 2004](#); [Aljohani, 2017](#)) and also in constructivism related to web-based, technology-based, and online teaching and learning of language ([Felix, 2002](#); [Tuncer, 2009](#); [Rüschhoff & Ritter, 2001](#); [Kaya, 2015](#)). Within the context of these theories, it explains how ChatGPT can be utilized for active, collaborative, and personalized language learning in higher education,

following [Rasul et al. \(2023\)](#). In contrast to traditional passive reception and delivery of knowledge, the constructivist theory of learning emphasizes students' active participation and the construction of knowledge through experiential learning.

In order to make learners more active and improve their learning experiences while encouraging the development of communicative skills in the target language, constructivist pedagogy is strongly considered ([Kaya, 2015](#)). As the current social and personal life is influenced a lot by technology and the internet, a social constructivist approach to teaching language is generally advocated to integrate technology into language pedagogy ([Isik, 2018](#)). The integration of technology, such as ChatGPT, represents an effective innovation in constructivist language pedagogy. From this perspective, the integration of ChatGPT in vocabulary teaching can also be highly effective. ChatGPT functions through human-machine interaction and conversational activities. Therefore, ChatGPT can serve as a valuable tool for facilitating students' development of communicative skills and enabling them to reflect on their own learning experiences, aligning with the key goals of constructivist pedagogy with technology integration. The potential of web technologies, such as Voice Chat, to enhance language teaching was acknowledged two decades ago ([Felix, 2002](#)). It may be considered that web technology ChatGPT has emerged to further expand upon that value in language education. [Yang and Wilson \(2006\)](#) explain that the dialogical approach to teaching reading fits within the social constructivist theory, wherein students actively engage with the text and the authors in the process of meaning-making. As ChatGPT possesses dialogic capabilities, it can assist students in the process of understanding and interpreting vocabulary within instructional texts by mediating between the text and the human learners. One more crucial aspect of the constructivist approach to teaching and learning is the utilization of technology. It empowers students by providing them with access to information ([Isik, 2018](#)). In this regard, ChatGPT exhibits strong potential for vocabulary instruction. It can offer extensive access to linguistic information, including the meanings of vocabulary words, as well as insights into their spelling and pronunciation.

Outline of the Proposed ChatGPT (3.5) -Integrated Vocabulary Teaching Approach

Our initial perspective is underpinned by the concept that legal vocabulary essentially shares commonalities with everyday language, and the grammatical structures used in legal terminology are often similar to those in general vocabulary, as suggested by [Mattila \(2012\)](#).

This notion prompts us to consider newspapers as a potential source of legal vocabulary, given that they frequently cover crimes and events involving legal matters in one way or another and the general public reads them and understands the legal terms. In this context, [Hrdlicková \(2020\)](#) highlights that students, lawyers, and pre-service lawyers can acquaint themselves with both national and international legal systems by encountering legal terminology within newspapers and legal magazines. However, it is worth noting that, as [Mattila \(2012\)](#) argues, legal vocabulary may also have denotations specific to legal culture. Consequently, our preliminary hypothesis is that the integration of online national and international newspapers and magazines can be an effective approach to learning legal vocabulary, with the assistance of ChatGPT to facilitate comprehension. Undergraduate students have the potential to acquire substantial vocabulary related to national and international laws, and legal proceedings not only within the courts and legal practices, but also encompassing legal aspects associated with national and international business, rights, politics, constitutions, and other various and relevant areas.

If asked, we can recommend "LOCAL12," an international, free, online newspaper that frequently covers news related to crimes, violations, and legal matters (Figure 1).

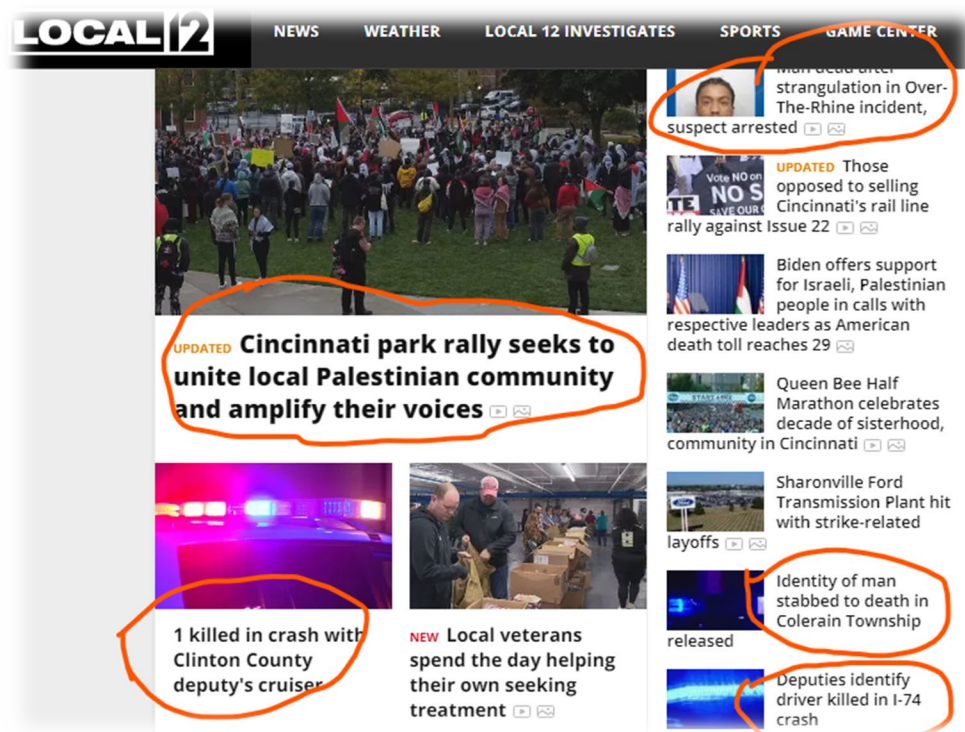


Figure 1. The Initial Page of the Online Newspaper "Local12" (accessed on 15/10/23) Featuring Multiple News Articles Reporting Incidents such as Homicide, Assaults, Arrests, and Accidents

The teacher can display a news report on the screen using an overhead projector. Subsequently, they select a news article that includes legal terminology. Next, the teacher instructs the students to read the news and identify and take note of the legal words in their books. Since the news includes pictures and videos, these visual aids assist students in comprehending the text and predicting the meanings of some of the unfamiliar words. The teacher can even play the video so that it adds an oral explanation of the news content (Figure 2).

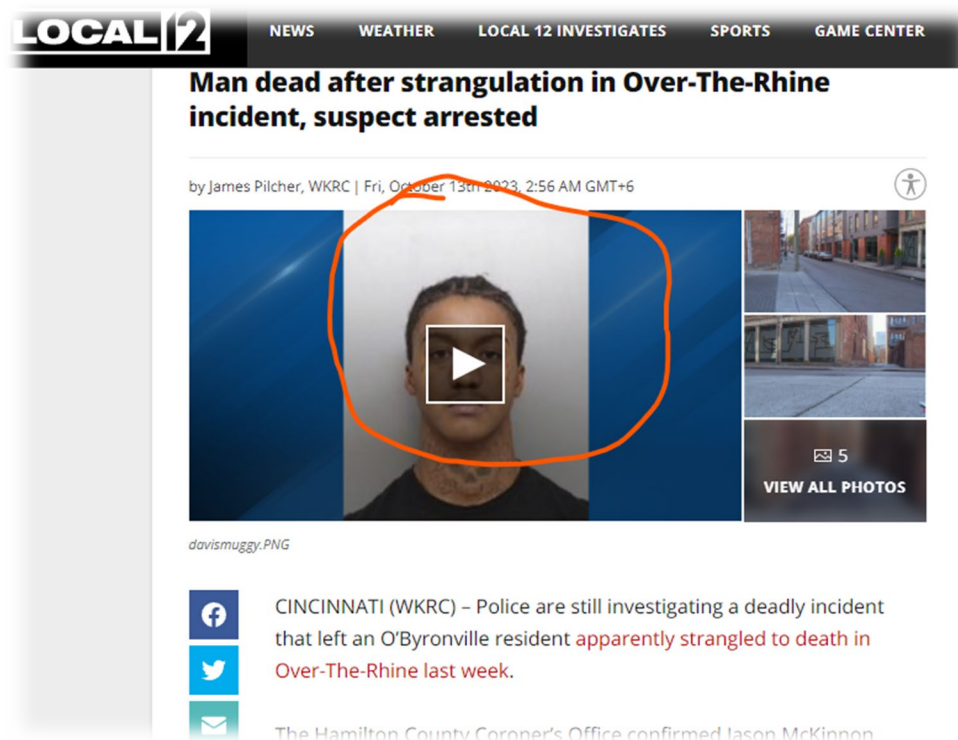


Figure 2. A Beginning Part of the Detailed News, Accompanied by Images and Video, Focusing on a Homicide

Students then list the known legal words. ChatGPT then spots the potential unknown ones. The teacher can then copy the next text and paste it into another tab of ChatGPT. A conversation starts and the teacher asks ChatGPT to find out the legal words and make a list of them (figures 3 and 4).

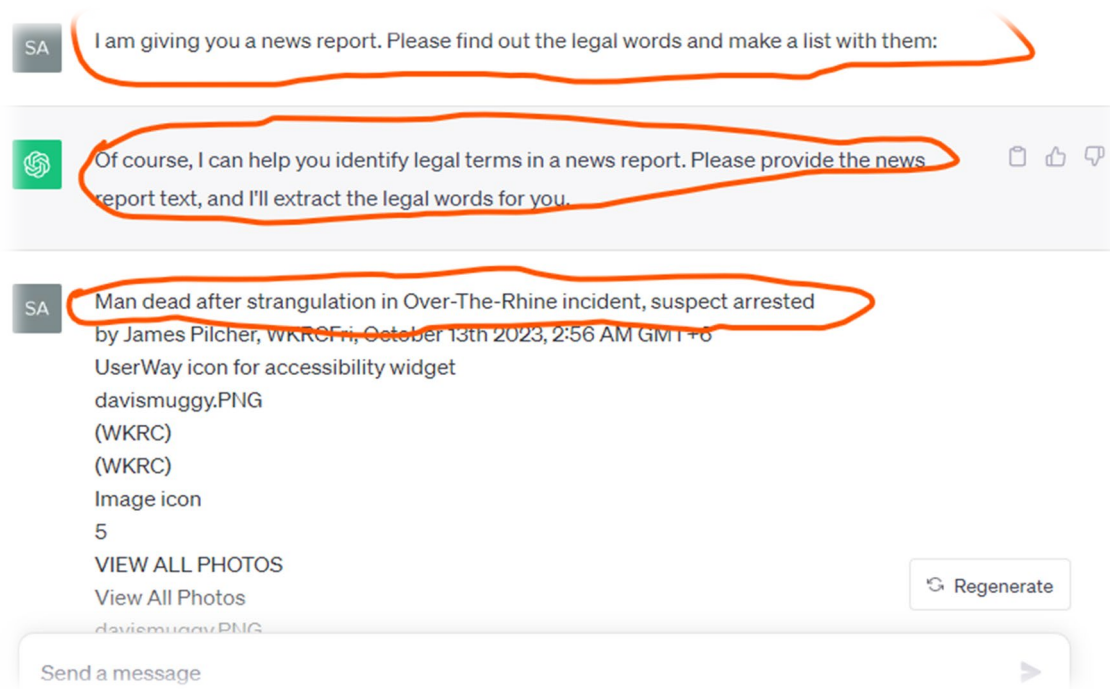


Figure 3. Conversation between a Teacher and ChatGPT on Identifying and Compiling Legal Terms from the Provided News

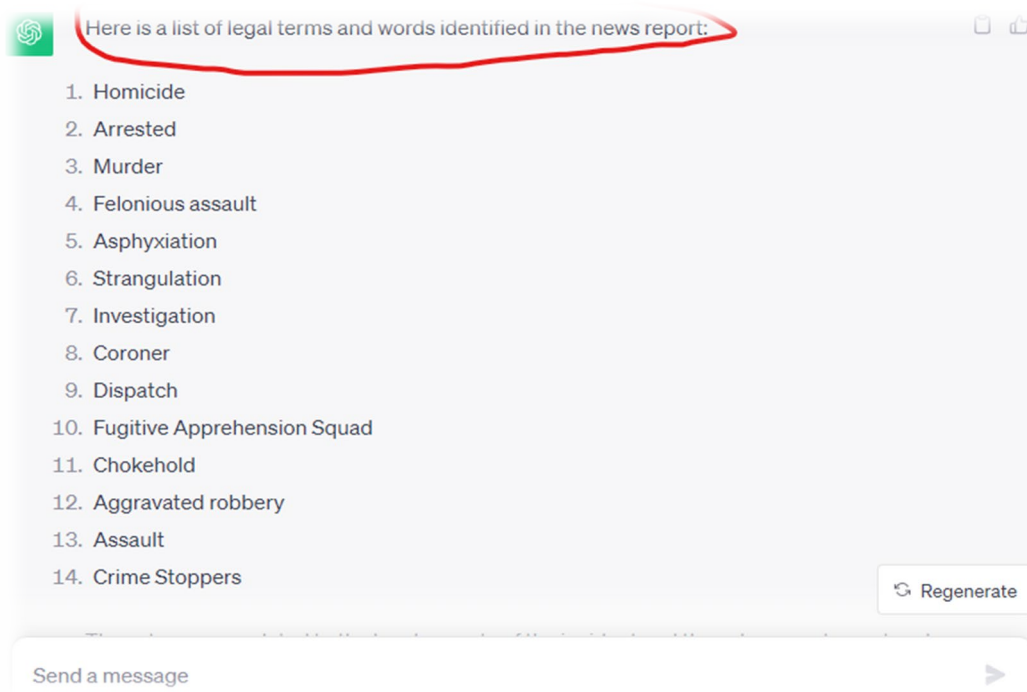


Figure 4. A List of Legal Words and Lexis Identified and Listed by ChatGPT from the Provided News

Learning vocabulary entails understanding three key aspects: pronunciation, meaning, and spelling. Students frequently encounter challenges when attempting to grasp all of these aspects simultaneously (Vadasy & Sanders, 2015; Ehri & Rosenthal, 2007). None of these three aspects should be overlooked, as they serve as facilitators for vocabulary acquisition (Ehri & Rosenthal, 2007). Consequently, for a comprehensive understanding of the meanings and pronunciation of legal words in the news, a teacher may request ChatGPT to provide meanings and pronunciation in students' primary language (Figure 5).

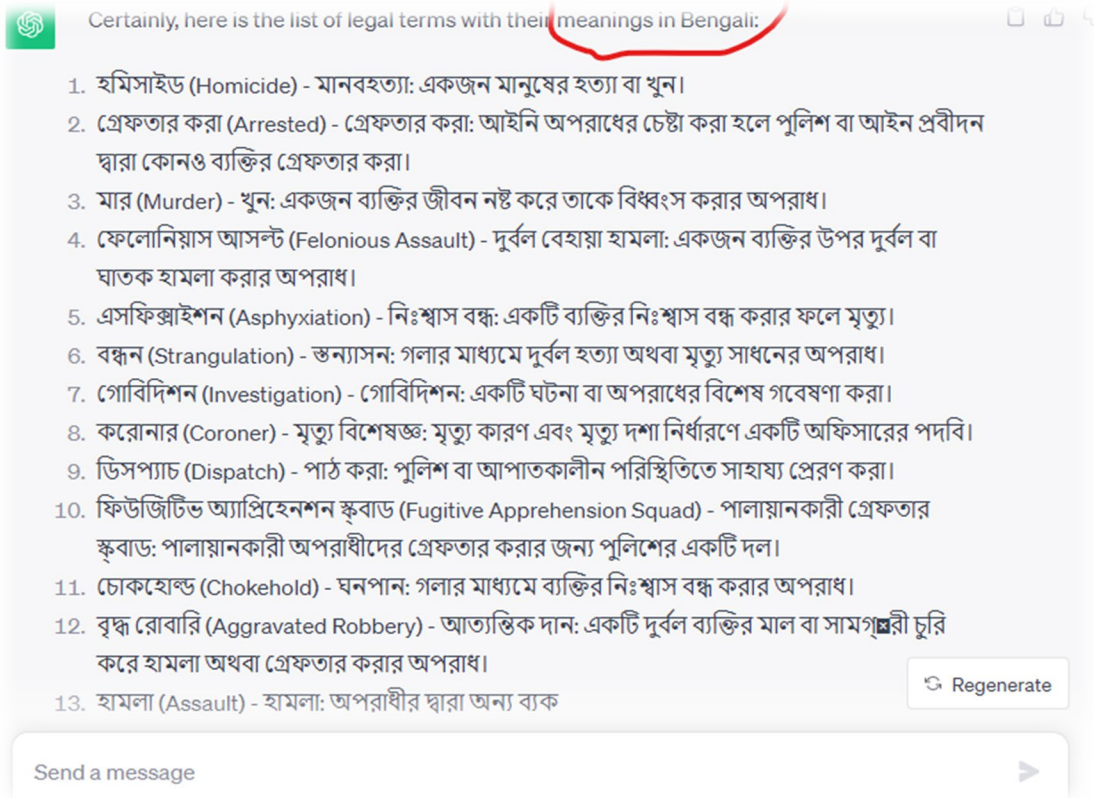


Figure 5. List of Legal Words with Corresponding Meanings and Pronunciation Transcriptions in Bangla

Students should then open both the ChatGPT given a list of words with meanings in the primary language and the news tab side by side so that students can re-read the text and simultaneously take a look at the word meanings. This helps them understand the news in context and in return, the meaning of the words becomes clearer (Figure 6).

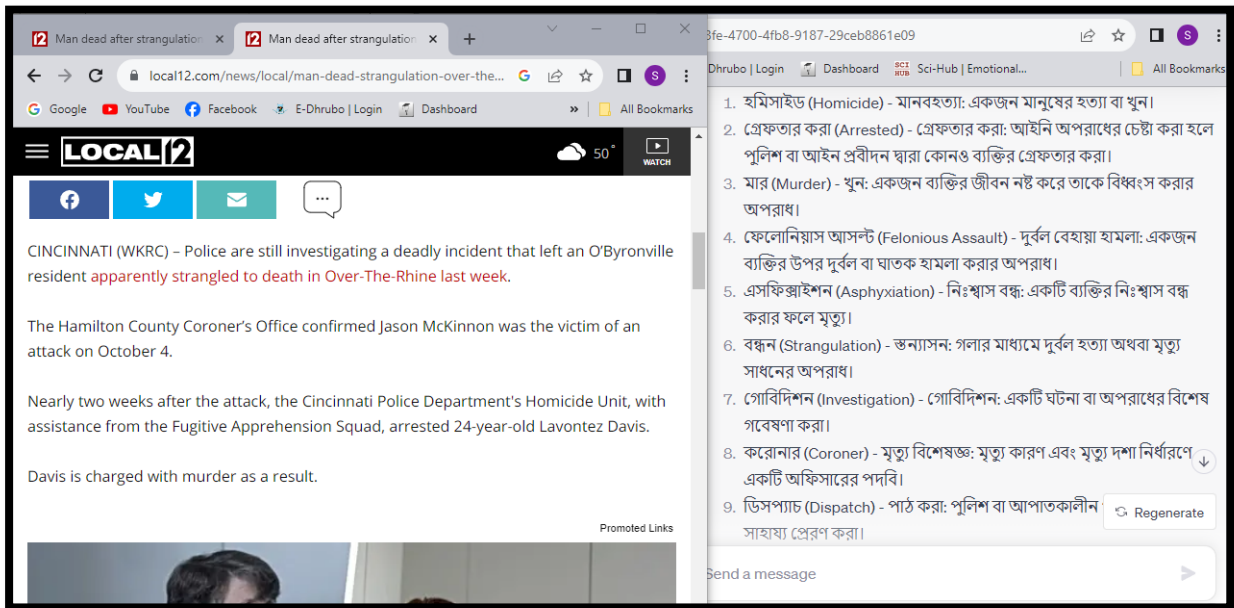


Figure 6. LOCAL12 News and ChatGPT-generated Word Lists with Meanings Displayed Side by Side on the Screen for Students

ChatGPT may get some pronunciation wrong when it transcribes the meanings in a language other than English. In that case, teachers should conduct an oral drill and correct the pronunciation of the words that ChatGPT has got wrong. Teachers' commenting on wrong pronunciations and giving them correct pronunciation act as an error correction task that often has positive effects on students' language skill development (Ferris, 2006; Truscott, 2007; Khansir & Pakdel, 2018).

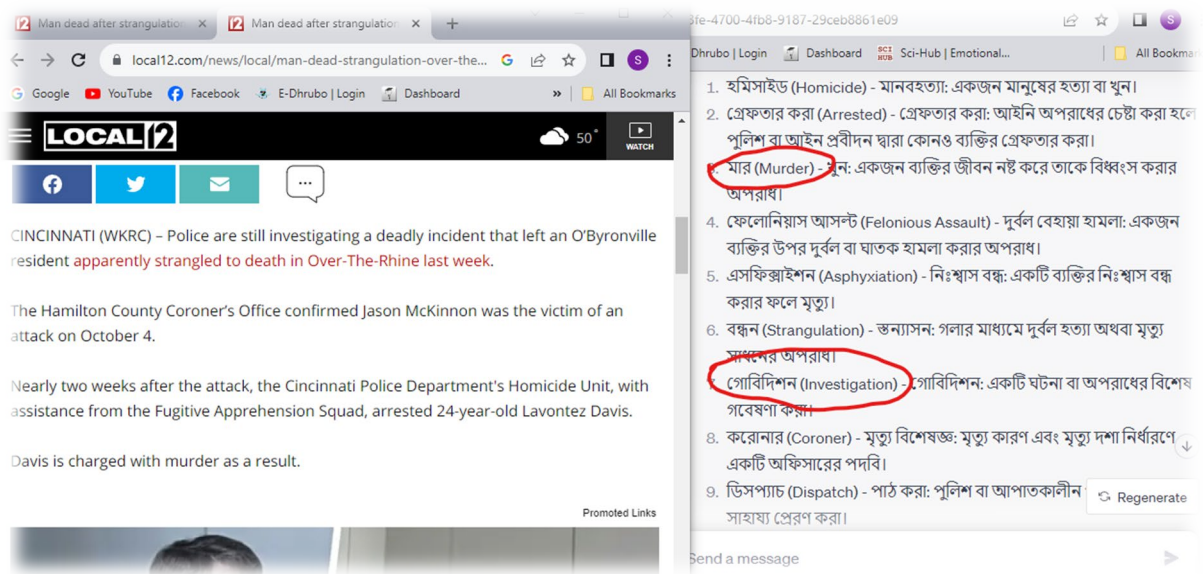


Figure 7. Incorrect Pronunciation Transcripts of Legal Words with Meanings in Bangla, Generated by ChatGPT from the Provided News

The teacher should now ask ChatGPT to provide the English meanings of the listed words. We take into consideration the theoretical framework suggesting an interdependent relationship between students' primary language and the development of the target language (Cummins, 1981). Obtaining the meanings in the primary language assists students in comprehending the meanings of legal terms in the English target language more easily (Figure 8).

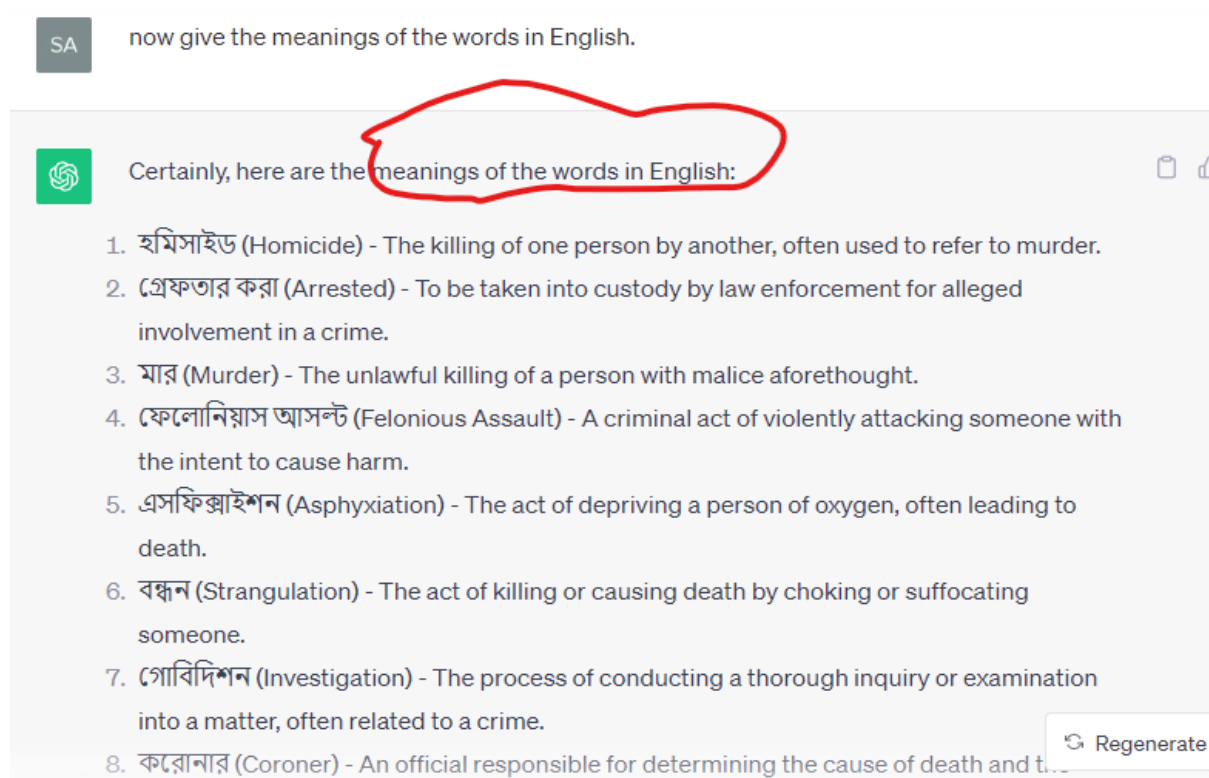


Figure 8. List of Legal Words with Meanings in the Target Language i.e., English

Law students are future legal practitioners who are tasked with writing numerous legal documents, thus necessitating a strong command over the correct spellings of legal terminology. In this context, teachers should turn to ChatGPT for mnemonic spelling devices for the provided list, as these mnemonics offer valuable aids for memory schema development in language learners and help retaining vocabulary (Ehri & Wilce, 1979; Rosenthal & Ehri, 2008; Hill, 2022). When ChatGPT supplies the mnemonic spellings for these legal words, teachers can introduce them to students in a fun and engaging manner, making the process of learning and remembering these spellings more effective and enjoyable (Figure 9).

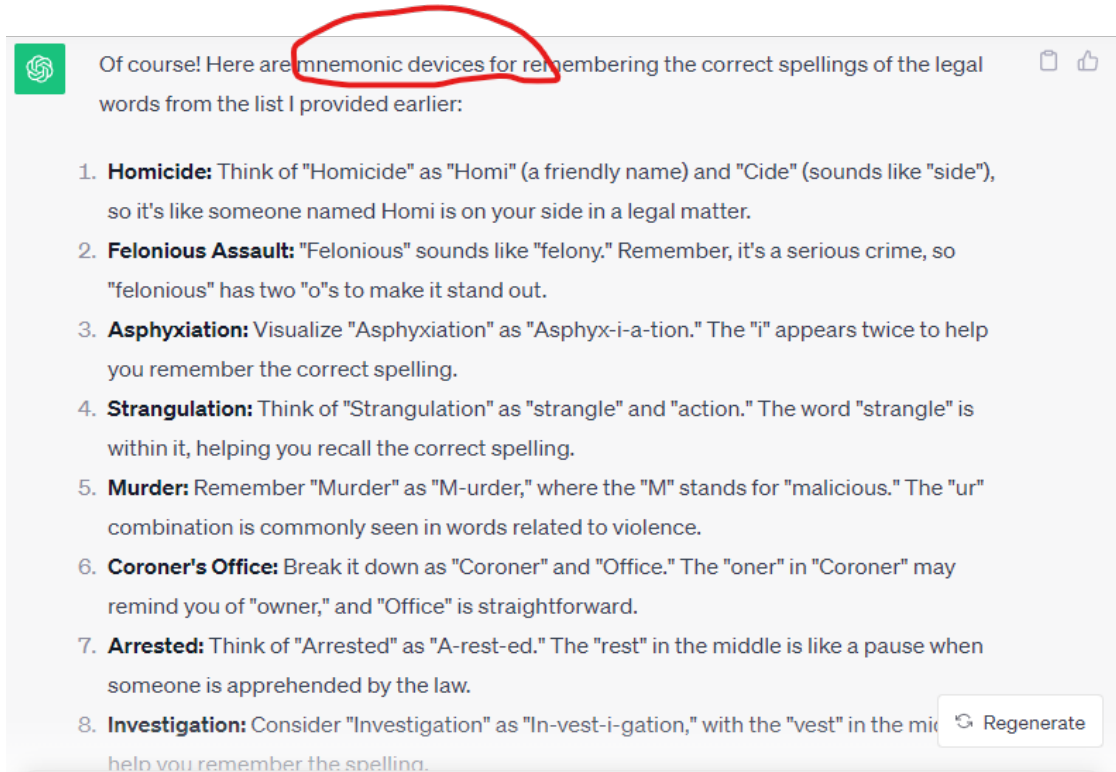


Figure 9. Mnemonic Spellings of Legal Words Provided by ChatGPT

Some Challenges

The implementation of AI literacy in both teachers and students is crucial. While teachers need a strong understanding of ChatGPT through firsthand experience, students also need to be proficient in using it, driven by their motivation. Researchers identify teachers' own ability and teacher education of using ChatGPT for instruction purposes is the key prerequisite (e.g., [Jeon & Lee, 2023](#); [Nash et al., 2023](#)) for involving ChatGPT and students in language teaching and learning. A potential challenge may be that participation in the class may be limited due to some students lacking the necessary motivation and experience in ChatGPT and educational technology. Resource-related constraints are another consideration. Internet interruptions can disrupt ChatGPT-based vocabulary teaching, as the method heavily relies on a stable internet connection. Power outages could also bring the teaching method to a standstill, requiring waiting as the only solution. Moreover, the method requires students to have a smart mobile phone, which may not be feasible in low-resource environments. Additionally, internet access, smartphones, and subscriptions to online newspapers or magazines are needed for vocabulary learning with ChatGPT, both in the classroom and for homework and practice assignments.

Conclusion

With the emergence of the latest AI technology, ChatGPT, the potential for exploration in language learning and teaching has expanded significantly. This post-application position paper examines the implications of ChatGPT as a valuable pedagogical tool for legal vocabulary learning, as well as the potential challenges associated with its use.

The ChatGPT-mediated innovative vocabulary instruction method involves the integration of online newspapers and the selection of news content containing everyday legal vocabulary, with the simultaneous assistance of ChatGPT. This approach ensures that teaching becomes interactive and engaging, incorporating visual aids and encouraging active engagement in learning legal terminology. Students actively participate with the assistance of ChatGPT, identifying and recognizing legal terminology throughout the news content. Furthermore, this method emphasizes comprehensive vocabulary learning, focusing on three key aspects: pronunciation, meaning, and spelling. The activities encompass enhancing vocabulary comprehension through the use of word definitions in students' primary language, followed by pronunciation refinement with the collaboration of ChatGPT and the teacher. Additionally, it involves bilingual word meanings with ChatGPT, leveraging the primary language for a deeper understanding of legal terminology in English. Lastly, ChatGPT plays a pivotal role in enhancing spelling proficiency in legal terminology through the application of mnemonic spelling techniques. This multifaceted approach harnesses ChatGPT's capabilities to facilitate a comprehensive and effective learning experience.

Implementing ChatGPT-based language instruction comes with its challenges and prerequisites. Teachers must be well-equipped with the skills to use ChatGPT effectively for instruction. Additionally, challenges such as limited student participation, resource-related constraints, and the need for students to possess specific technology and internet access may hinder the smooth implementation of this innovative teaching approach.

The study opens the door for further research into the use of AI, like ChatGPT, in language education. It encourages educators to explore the integration of AI tools to foster language skill development, and it lays the groundwork for future innovations in language pedagogy.

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