

ChatGPT：教育における潜在的な使用法と言語 教育における使用法の報告についてのレビュー

ChatGPT: A review of potential uses in education and reported uses in
language education

Marie-Claude TORIIDA

ChatGPT: A review of potential uses in education and reported uses in language education

ChatGPT：教育における潜在的な使用法と
言語教育における使用法の報告についてのレビュー

Marie-Claude TORIIDA

Abstract

ChatGPT, a generative AI tool, surprised the world with its impressive capability to handle complex tasks and generate tailored information. It counted over 100 million users in just two months after its initial release to the public on November 30th, 2022. ChatGPT's abilities in the field of education have sparked a variety of reactions among educators, and its existence will require a need to rethink and reshape traditional educational practices. This article first presents recent literature outlining possible uses for both teachers and students in the field of education. It then summarizes recent literature on specific uses of ChatGPT in language education. Furthermore, ChatGPT's limitations in multilingual education along with other of its inherent limitations are highlighted. The need for alternative forms of assessments in the age of ChatGPT is noted and various forms of such alternative assessments are listed. Finally, the article concludes by stating that the integration of technology such as ChatGPT should be promoted and not discouraged in language teaching and learning.

Keywords: ChatGPT, education, language education, teaching and learning

Introduction

November 30th, 2022 will make history as a date that transformed the field of education as we know it. On that day, ChatGPT (version 3.5), an AI large language model (LLM), was made publicly available. Chat refers to the bots' ability to answer questions and reply to commands (also referred to as "prompts" or "queries" in the literature) in a human-like fashion. GPT stands for Generative Pretrained Transformer for its ability to execute commands and generate answers and explanations. ChatGPT gained quick popularity, and within two months of its release, counted over 100 million users (Lai et al., 2023). Shortly after, ChatGPT-4, a paid, upgraded version, was released on March 14th, 2023. ChatGPT-4 is more robust as it was trained on 1 trillion parameters (as opposed to 175 billion for ChatGPT), and therefore, has better response quality, consistency and precision (Kary, 2023). It is also said to have enhanced ability to maintain the context of previous queries as it engages in longer conversations (Kary, 2023). Finally, it can handle longer commands of up to

approximately 24,000 words (Kary, 2023).

Kary (2023) summarized the impact of ChatGPT in the field of education in the following way:

ChatGPT symbolizes a new wave of AI technology that has rapidly interwoven itself into the fabric of our society. The release of this AI technology marks a pivotal moment in human history, signaling our transition into an era that will be profoundly impacted by AI. AI has the potential to finally deliver the promise of individualized learning, adapt content based on individual learners, and provide immediate targeted feedback. AI also has the potential to free teachers from overburdened administrative tasks. (Module 1.1)

ChatGPT has both been welcomed and viewed with skepticism by educators. The purpose of this paper is to review the literature on possible ways ChatGPT can be used in the field of education. It also aims to report on specific ways that language teachers successfully used ChatGPT in their classrooms and/or for administrative tasks. The research questions guiding this paper are:

1. What are possible practical usages of ChatGPT for teachers (including language teachers), in and out of the classroom?
2. How have language teachers successfully used ChatGPT, and what specific commands were used?

As successfully communicating with AI bots such as ChatGPT is a skill that requires training (Kary, 2023, Ross & Dennisson, 2023), I am especially interested in reporting on specific commands that have been successfully used. I believe this will best assist language teachers, instructors and researchers in using ChatGPT for their individual contextual needs. For the sake of clarity, specific commands reported will be presented verbatim in “*indented quotations*”. However, including ChatGPT’s answers to the given commands is beyond the scope of this paper. Readers are guided to the references if interested.

A Brief History

ChatGPT was developed by OpenAI, an AI research and development company that was founded in 2015. OpenAI was first intended to be a non-profit enterprise to benefit humanity as a whole. It was started with the financial backing of well-known businessmen such as Elon Musk, the CEO of Tesla, Reid Hoffman, the co-founder of LinkedIn (Trust, Whalen, & Mouza, 2023), Sam Altman, Greg Brockman, Ilya Sutskever, John Schulman, and Wojciech Zaremba, among others (ChatGPT, 2023). After OpenAI discussed the possibility of becoming for-profit, Microsoft invested heavily, and the partnership totaled 1 billion dollars (Trust, Whalen, & Mouza, 2023). GPT-3, the predecessor of ChatGPT, was trained on the Internet from sources such as Wikipedia and Reddit links, and soon became capable of producing human-like responses. However, many authors commented that the data on which the LLM was trained resulted in a tool that can produce disinformation, prejudice and bias.

(Kary, 2023; Kasneci & al., 2023; Trust, Whalen, & Mouza, 2023). GPT-3 was then trained by “reinforcement learning from human feedback” in order to reduce these tendencies (Trust, Whalen, & Mouza, 2023). Finally, ChatGPT (version 3.5) was released to the public. For a more detailed review of the history of ChatGPT, please refer to Rudolf, Tan & Tan (2023).

Possible Uses of ChatGPT in Education

Two articles, namely Trust, Whalen, & Mouza (2023) and Kasneci et al. (2023) give detailed explanations of possible uses of ChatGPT in education for teachers and learners. The main points of these two articles are synthesized and presented below.

Possible Uses for Teachers

First, Trust, Whalen, & Mouza (2023) started by asking ChatGPT “*What are 20 things you can help teachers with*”. They then outlined the response under the following categories:

- **Provide support with teaching**, including writing course syllabi, lesson plans, classroom rules and policies, learning objectives, directions for learning activities, discussion prompts, plans for substitute teachers, mini-lecture presentation scripts, and tips for classroom management (see Figure 1).
- **Provide support with student assessment**, such as writing student progress reports, quiz and test questions, and rubrics for grading. It can also provide automatic grading and feedback to students (Zhai, 2023).
- **Help support student learning**, including writing study guides, math and science word problems, text for students to read at different Lexile levels, directions for conducting a science experiment or designing a multimodal project, writing samples for students to critique, individualized educational plan goals, choose-your-own-adventure stories, and Reader’s Theatre scripts.
- **Offer suggestions for improving teaching**, such as writing advice for creating more inclusive and accessible learning activities, tips for diversifying the authors in a class reading list or syllabus, strategies for using digital tools and apps to enhance teaching and learning, and examples of how to communicate a concept to students at different age levels.
- **Support teacher-parent and teacher-student communication**, including writing text messages in different languages to send to students’ family members, drafting emails to communicate with students and family members, and providing text for a classroom newsletter or website to keep students and family members up to date on class activities. (pp. 4-5)

Additionally, Kasneci et al. (2023) mention that the adoption of AI in education has been slower to implement than in other fields. Low AI literacy, basic level digital literacy, low willingness to implement, and a transmissive orientation of educators were factors hindering the adoption of AI technologies (Kasneci et al., 2023). They present research findings

regarding how LLMs were successfully used to generate teaching content, automate assessment, and to provide feedback in various educational context. For a full summary, please refer to page 4.

Possible Uses for Students

Kasneci et al. (2023) note that the use of LLMs such as ChatGPT can offer opportunities for personalized learning experiences that are effective for each individual's learning style. They outline ways in which LLMs can support elementary students, middle and high school students, university students, group and remote learning, learners with disabilities, and professional training.

With respect to middle and high school students, Kasneci et al. (2023) note that learners can be assisted in learning a language, learning writing styles in different subjects, and practicing AI generated problems and practice quizzes. For high school students and university students, they also note that problem-solving skills, analytical thinking, and out-of-the-box thinking can be developed through AI generated explanations, step-by-step solutions and other answers. They further add that research skills for university students can be enhanced through AI generated information and resources along with hints on unexplored research topics. Finally, they mention that university students' writing skills can also be developed and improved through AI generated summaries and outlines of texts. For a more extensive summary of educational research done using LLMs to benefit learners of all levels, see Kasneci et al. (2023) pages 3-4.

Trust, Whalen, & Mouza (2023) further asked ChatGPT "*What are 20 things you can help students with?*" and outlined the results as such:

- **Personalized learning support**, including providing individualized tutoring in any subject, research support, directions to complete an activity, explanations of complex topics in more accessible language, notes for an inputted text (e.g., "Take notes on the following TED Talk transcript"), summaries and outlines of text, tips for writer's block, text to help facilitate writing (e.g., sentence starters, transitions), computer code, translations of text into multiple languages, directions for solving problems, and more.
- **Creative thinking support**, such as writing scripts for multimodal projects (e.g., podcast or video); listing local, national, or global issues to address as part of a civic engagement project; providing suggestions for how to write or rephrase a sentence to make it more creative; offering ideas for inventions (e.g., "Design an invention to solve water scarcity around the world"); and providing support with brainstorming and idea forming for writing and class projects.
- **Assessment support**, such as writing test and quiz practice questions to help students prepare for an upcoming assessment, providing rubrics for students to evaluate their own work, and offering feedback on writing and projects.
- **Reading and writing comprehension support**, including helping improve students'

reading comprehension skills, writing skills, language skills, and research skills (Kasneci et al., 2023). ChatGPT can also help students with each of the seven steps of the writing process: (a) choosing a topic, (b) brainstorming, (c) outlining, (d) drafting, (e) soliciting feedback, (f) revising, and (g) proofreading (Anders & Sahakyan, 2023, p. 6)

While these two articles provide numerous ideas on how ChatGPT could be used, they lack in detailing specific commands to use to achieve the listed purposes. The next section focuses on reported commands that have been successfully used by language educators.

Reported Uses of ChatGPT in English Language Teaching and Learning

ChatGPT has been used by language teachers as a personal assistant, for lesson planning, material development, and as an automated grading assistant. Language teachers have further used it to enhance students' writing and reading skills, and to promote learner motivation and autonomy.

Personal Assistant

Kary (2023) reported on his use of ChatGPT as a personal assistant. He used commands such as, *"Help me start an email to a colleague about ..."*, *"How do I respond to a student who is expressing frustration about a grade"*, *"Fact-check this statement "..."*, *"Proofread this paragraph for grammar and spelling errors"*, *"Provide a step-by-step guide on how to create a PowerPoint presentation from a Word document outline"*, *"Can you walk me through the process of creating a poll in Zoom during a live meeting?"*, *"Detail the steps to integrate Google Calendar with a Canvas learning management system"*, *"Teach me how to set up automatic email replies in Gmail when I'm out of the office"*, *"What are the key trends in this dataset of student test scores?"*, and *"Interpret this data about student attendance and its correlation with grades."* The examples above show how ChatGPT can be used in versatile ways to assist in a wide array of tasks.

Lesson Planning

Koraishi (2023) used ChatGPT-4 to prepare and refine a lesson plan, and to get more ideas and materials to incorporate. Here is the string of commands he used: *"Prepare a well organize lesson plans for general DSL class. The number of students is 4. The level is A2. The theme of the lesson is Neighbors and communities. The grammatical objective of the lesson is present continuous. Make sure to add detailed actions for the teachers to make during the lesson. Also, prepare a production phase at the end involving pair work. Generate a worksheet in the end to be assigned as homework that contain a variety of exercises that test the vocabulary as well as the grammar taught in this lesson."*

The author then asked for revisions: *"First, this is a very traditional lesson plan. I would like something more modern. Perhaps integrate some more interactive activities, and maybe integrate the video that we can work on as a visual. Second, write the actual questions in the exercises for the worksheet. What you generate must be ready for printing."*

ChatGPT integrated the video into the lesson plan, but did not provide a video. The author continued with: “*What video can I use in order to apply the lesson plan?*” The bot then proposed a specific Ted-Talk video, gave the link, and provided a lesson plan for the 5 most pertinent minutes of the video.

In this way, ChatGPT can help teachers plan lessons and get various ideas for activities and materials to include.

Material Development

ChatGPT has successfully been used to develop various kinds of teaching materials, such as readings and vocabulary worksheets, and IELTS and TOEIC test practice materials.

Theme Specific, Level Specific, English for Specific Purposes Readings

Koraishi (2023), using ChatGPT-4, showed how theme specific and level specific materials could be generated. The first example presented was the following: “*Generate a text for an ESL class at a CEFR level A2 about the pyramids of Giza. Highlight 5 new words for the students to learn. Make these words understandable from the context, but at the same time, make sure that they are new to A2 level students. After the text supply 7 CCQs, and also 5 True/False questions. 2 questions about the new vocabulary*”. The author later asked: “*Rewrite the text you supplied for C1 level students. Make sure to change the questions accordingly.*”

Similarly, Sato (2023) demonstrated how reading practice materials and worksheets could easily be generated by ChatGPT through the following commands: “*Step 1: write at 300-word article about Shohei Otani and set the level for A2 English. Step 2: Make a vocabulary list of ten words from the article that A2 English students should learn with the format of the table including English, Japanese, and other example sentences. Write the first letters of English words. Write examples which are not related to the article. *Make “fill-in” questions about the vocabulary. Step 3: Provide 5 comprehension questions with four answer choices each about the article. Step 4: Provide correct answers for each question and reasons for the answers. Step 5: Please explain the correct answers and the reasons in Japanese. Step: Provide five discussion questions about the article.*” Chat GPT created the materials, including a well-presented vocabulary table.

Having previously worked as an English for Academic Purposes (EAP) Instructor in a Nursing Foundation program where most materials were developed “in-house”, I could have saved much time using ChatGPT with a string of command such as: “*1. Create a 750-word academic essay on “The benefits of sleep” at a CEFR A2 level. Do not use highlighted headings. 2. Make 5 multiple choice questions, 5 true or false questions, and 2 comprehension questions on the main themes of the reading. 3. Make a table of 15 words that A2 students should learn with the format of the table including the word and a simple definition. 4. Make a vocabulary quiz for the words in 3 using different kinds of questions. Use each word only once. 5. Provide an answer key and explanation for each question*”. However, when using commands related to Flesch-Kincaid grade levels, ChatGPT was not accurate.

Vocabulary

Koraishi (2023), using ChatGPT-4, used the following commands to develop various materials and worksheets using targeted vocabulary: *“Choose the following vocabulary to create a coherent story. Integrate as many of the vocabulary list as possible.”* (the author provided 96 words and expressions) followed by *“Use this list to make a comprehensive worksheet that can test a Czech English learner. Test each word only once.”* As a response, ChatGPT produced Multiple-Choice, Fill-in-the-Blank, True-or-False, Matching, and Short-Answer questions.

Koraishi (2023) also showed how he used the following string of commands to produce worksheets for students: *“Use the following list of vocabulary to generate a worksheet for an EFL learners at the level of A2 in English. This student is Turkish, so include some questions that use Turkish as well. Make sure that the type of questions are varied and provide an answer key at the end.”* (followed by a list of words). After this command, ChatGPT generated Fill-in-the-Blank, Match-the-English-Word-with-their-Turkish-Translations, Translate-the-Following-Sentences-to-Turkish, and Answer-the-Questions-Using-the-Vocabulary- Provided questions.

In a similar vein, I have used ChatGPT to produce additional materials for teaching and testing target vocabulary from textbooks. I have used commands such as *“1. Please provide in a table format very simple definitions to the following vocabulary (followed by a list of 10 words). 2. Make a short reading passage close-exercise using the same vocabulary. 3. Provide the answers and a brief explanation of the correct answers”*. I used the generated materials in pair-work “before reading” exercises by making students match the definitions and words (cut-up papers), and I used the close exercise as vocabulary review and/or quizzes.

IELTS

Buck (2023) reported on the usefulness of ChatGPT for the purpose of producing learning resources tailored for IELTS exam readiness. He presented on his use of ChatGPT to generate diverse materials, such as practice exams, passages for reading comprehension, and prompts for writing. He noted the following advantages of integrating ChatGPT-generated content into IELTS preparation courses: 1. Streamlining the workload for educators, who would otherwise invest significant time and energy in developing study materials. 2. Providing students with a broad array of resources that contribute to their skill enhancement across all aspects of the test. 3. Having the ability to customize materials to cater to the distinct requirements of individual students and align with the instructional approach of the educator.

TOEIC

Sakai (2023) reported on his use of ChatGPT to develop personalized learning experiences for Japanese students. He first asked ChatGPT to give a detailed explanation of an official TOEIC sample multiple-choice question (the explanation had not been given on the official website). While he found that the explanation was sufficiently clear when generated in English, the author showed ChatGPT’s limitation to answer the same prompt in Japanese. Sakai (2023) then suggests that it is better to use the translation ability of ChatGPT to

translate an English answer into Japanese. However, he noted that ChatGPT's ability to translate into Japanese is yet imperfect. ChatGPT's imperfection in language translation was also voiced by other researchers (Lai et al., 2023). In my experience, the DeepL website and application are more reliable and accurate than ChatGPT for English to Japanese translation.

Sakai (2023) further stated that ChatGPT can be used to generate TOEIC specific level questions by using commands in Japanese that translate to "Please give me sample questions to section 4 of the TOEIC test". He found, however, that ChatGPT could not provide the TOEIC level of difficulty of the sample questions it generated when asked.

The sections above showed how ChatGPT can be used to quickly produce a variety of materials for the benefit of learners.

Automated Grading/ Feedback Assistant

ChatGPT has been used to help language teachers evaluate and give feedback to students' work. First, Koraishi (2023) used the following command to evaluate a student's writing sample *"According to the IELTS Task2 writing section standard, what would the student score if helshe provided this answer to this question"*. While ChatGPT was not able to provide a grade, it provided detailed feedback based on the IELTS grading rubric. The author further asked: *"Can you highlight all of the examples you talked about and provide better alternatives?"* and finally, *"Rewrite this essay to be a better answer for the provided question please."* In using such commands, teachers can both quickly provide students with individualized feedback. Furthermore, in learning to use these commands, students can independently practice and improve their writing.

Similarly, Sato (2013) used ChatGPT and writing rubrics to evaluate students' IELTS practice writings in the following way: *"Use a rubric from the link and evaluate the following answer to the question.*

https://takeielts.britishcouncil.org/sites/default/files/ielts_task_2_writing_band_descriptors.pdf

Write about the following topic: Many people believe that social networking sites (such as Facebook) have had a huge negative impact on both individuals and society. To what extent do you agree or disagree. You should write about 200 words." The student whose work she provided to ChatGPT had already gotten a Band 6 on an official IELTS writing test. ChatGPT's evaluation, however, was of an overall Band 5 level. She further used the following command

"Evaluate the same essay from A1 to C2 in terms of range, coherence, accuracy, description, argument, and overall of written assessment grid of appendix 4 on page 187 of the attached PDF.

<https://rm.coe.int/common-european-framework-of-reference-for-languages-learning-teaching/16809ea0d4>". ChatGPT graded the essay at an overall B1 level, and it provided some advice on ways to improve the piece of writing. Sato (2023) commented that the two grades given by ChatGPT were consistent in terms of IELTS/CEFR equivalency scales. She concluded, however, that further research, using more writing samples, was needed to validate the ability of ChatGPT to accurately evaluate student writing using specific grading rubrics (Sato, 2023)

Writing Skills

Very shortly after its release, Fitria (2023) boasted ChatGPT's ability to produce acceptable and accurate writings that considered writing order, event order, used active and passive tenses, and showed culturally appropriate knowledge, that could help English teachers and learners alike organize English essays. In the following, how ChatGPT was used to develop writing skills through personalized learning, and the importance of the quality of the essay topic will be discussed.

Personalized Language Learning in Writing for Japanese Students

Sakai (2023) investigated the potential of ChatGPT for personalized English language learning, with a specific emphasis on its applicability to Japanese students. He detailed some of his successful and unsuccessful experiences using ChatGPT, giving the commands he used as case-study examples along with the responses he received.

In his second case-study presentation, Sakai (2023) exemplified how ChatGPT can be used to correct an English paragraph and how to understand errors made by using the commands: *"Please correct the grammatical mistakes for the following text"* followed by *"Please tell me what are challenging for the original text"*. He further asked ChatGPT to rate the original text in terms of CEFR level, TOEIC and TOEFL iBT scores. He noted that ChatGPT was able to give feedback on a scale of 1 to 10, a probable CEFR level, and a range on TOEFL iBT, but it was not able to provide a possible TOEIC score. He concluded that other level checkers are needed to provide more accurate feedback. Similarly, Bridge (2023) noted that, with respect to CEFR levels, ChatGPT was often inaccurate and inconsistent in its evaluations. In his presentation, Bridge (2023) introduced and evaluated various text-level and/or vocabulary level CEFR-level checking tools that are more accurate than ChatGPT.

Sakai (2023) further demonstrated how ChatGPT reworded the same ChatGPT-edited paragraph using commands such as *"Please make it more natural"*, *"Please revise it more academic tone"*, *"Please rewrite bit easily"*, and *"Please revise more natural, academic, and professional tone, with extremely challenging vocabulary"*. While noting the challenges of potential bias and prejudice in the elicited corrections, the author concluded that ChatGPT can help learners improve their writing abilities and understand their own mistakes and frequent error patterns through personal feedback.

Finally, Sakai (2023) attempted to ask ChatGPT to produce a paragraph that would include errors likely made by a Japanese student and reported the response received. In short, ChatGPT said it was incapable of producing such a request as it went against its ethical and cultural standard. Raine (2023), however, was able to get ChatGPT to produce a writing with errors by using the command *"Generate an account of a homestay experience in Vancouver written by a Japanese student. The account should contain some grammatical and lexical errors"*. The response generated by ChatGPT includes the following warning note: *(Note: This account includes some grammatical and lexical errors to simulate a non-native English speaker's writing*

style.)

While learners can use ChatGPT to help them improve their writing, they can also use it to produce work to be submitted. However, in the following section, the quality of the essay prompt will be discussed as a way to counter such instances.

Quality of the Essay Topic.

Benevides (2023) assigned a 500-word essay to a group of eight students enrolled in an upper-level undergraduate applied linguistics course taught in English. These students were instructed to compose a 500-word essay in one week utilizing ChatGPT. The essay topic was intentionally designed to be challenging for an AI tool to effectively address, and included four questions. One of the questions was to explain an example of a concept as it related to a chapter in the textbook. The following instructions were given to students: 1) students were to try to write the best essay possible; 2) students were permitted to employ any resources or aids, including ChatGPT on the condition that they disclosed their usage; 3) the instructor would assign both hypothetical and concrete grades, with the actual grades based on the quality of the attempt and the feedback provided by students after completing the task. Following the completion of the task, a discussion took place involving both the teacher and the students regarding the efficacy, implications, and best practices of using ChatGPT or other aids. Benevides (2023) reported that the student who received the best grade had not used ChatGPT, as he had been absent the week prior and was not aware of that he could do so. The next best grade was given to a student who reported using ChatGPT to get some ideas of how to write answers, but had carefully crafted and used her own knowledge and writing style to complete the assignment. Students who scored lowest (in the 60s) on the assignment reported having copy-pasted answers given by ChatGPT to the four questions in the prompt. The answers, according to Benevides (2023), lacked depth of understanding and lack of cohesion in making a complete whole.

The author concluded that the outcomes of the study were reassuring for educators who had concerns about the impact of AI on writing quality. The findings suggested that the caliber of AI-enhanced writing is not predetermined. The educational advantages of such an approach can be influenced by factors such as the quality of the essay topic presented by the instructor and each student's conscientious engagement with the generated content.

Benevide's (2023) study points to the important role of having multi-question and multi-faceted essay topic in writing, making it more difficult for ChatGPT to effectively address. This, in return, makes it easier for instructors to give credit to students who have rightfully done their assignments.

Speaking Skills

Numerous authors have used ChatGPT to enhance learners' speaking skills by using Google Chrome extensions that enable users to actually converse orally to ChatGPT, such as *Voice Control for ChatGPT* (Fröhlich, n.d.) and *Talk-to-ChatGPT* (GBAtemp, n.d.).

Kohnke, Moorhouse & Zou (2023) and Hong (2023) note the benefits that AI chatbots can provide in terms of linguistic input and regular conversation practice. Kohnke, Moorhouse & Zou (2023) emphasize the need for rich input and daily practice to be a successful language learner, and Hong (2023) adds that in parts of the world where English education is heavily test driven, AI can deliver natural conversation practice that is often missing in such a context. AI chatbots, such as ChatGPT, have the capability of adjusting the level of fluency at which they converse (Kohnke, Moorhouse & Zou, 2023).

To improve speaking skills, Kohnke, Moorhouse & Zou (2023) suggested the following commands: *“Can we have a conversation about the [topic] weather? And can you suggest words and expressions I can use in this conversation?”*, *“Can we have a chat as two strangers who bump into each other in [place name]?”* and *“Can we engage in small talk, and you help correct my mistakes in English?”*

Ross and Dennisson (2023) have been working on a KAKEN funded research project to help medical students practice patient interviews in English. They used a Chrome extension to “speak” to ChatGPT. In their presentation, they first described the limitations of having medical talk with ChatGPT, including the fact that ChatGPT does not have bodily experiences, its refusal to discuss medical issues, and the bot not actually conversing. They described their journey of “thinking outside the box” to develop commands that would actually lead to a human-like conversation.

After numerous attempts, they were successful when using this command: *“Roleplay a female patient who is married with two children, including a 2-month old baby. You have been experiencing stomach pains. You are generally healthy, but sometimes you binge eat. Keep your answers fairly short and let the doctor ask for the appropriate information. Please say “OK” when you are ready, and I will roleplay the doctor.”* They recorded the dialogue between Ross and ChatGPT using this role-play, and it sounded very natural. After the trial dialogue, they even asked ChatGPT to evaluate the conversation of the “doctor” in terms of empathy and completeness of information.

Creating dialogues and role-plays is a further way to use ChatGPT to develop speaking skills. Kohnke, Moorhouse & Zou (2023) used the following commands: *“Can you write a dialogue between Amy and Jane about rising electricity prices”* and *“Can you adjust the complexity of the following dialogue for beginners or advanced learners”*. Similarly, Baley (2023) used ChatGPT to motivate young Korean learners in a summer camp program. In small groups, students were asked to choose a role in a story (e.g. King, Dragon, etc.). He then asked ChatGPT something like *“Write a dialogue between Joeng, a King, Ha-Yun, a dragon, and Yu-Jin, a princess”*. He reported that his students were very motivated to then learn and perform the dialogue.

Finally, Sato (2023), using the Chrome extension *Voice Control for Chat GPT*, suggested that ChatGPT can be used to teach pragmatics in various conversational situations. She noted

that textbooks are often limited in their examples of real-life conversations. She used the following commands to provide examples and practice materials for English conversations: *“Make three example dialogues to practice conversation closings in English in a pragmatically appropriate way”*, *“Make a dialogue about making a compliment and receiving a complement in a pragmatically appropriate way”*, and *“Make three example dialogues making a request and making a refusal in a pragmatically appropriate way”*. She concluded that students can use ChatGPT as a conversation partner, and that ChatGPT can also be used to evaluate speaking skills, get feedback on speaking skills, and get advice on ways to improve speaking skills.

As the above examples show, ChatGPT can be used to improve speaking skills through conversation practice, or by generating various dialogues in a variety of real life situations.

ChatGPT to Enhance Learner Autonomy

ChatGPT has been used for the explicit purpose of enhancing learner autonomy. Augustini (2023) conducted a study to explore how ChatGPT could serve as a beneficial tool for Indonesian high school students. The research involved surveys and semi-structured discussions to investigate how ChatGPT was employed by English language learners in managing their learning processes, setting objectives, and guiding decisions about their English language acquisition. The investigation included six students who engaged with ChatGPT to enhance their English skills. According to the participants, utilizing ChatGPT increased their motivation and involvement in learning English due to the enhanced control they gained over their learning process. The instant feedback provided by ChatGPT was highlighted as particularly valuable, aiding in the identification of strengths and weaknesses and enabling independent development of language skills. The study's author also highlighted the potential of ChatGPT in fostering self-reflection and self-assessment, both pivotal in cultivating learner autonomy. Acknowledging some limitations of the study, Augustini (2023) concludes that ChatGPT can provide a secure and non-judgmental platform for students to refine language abilities. This, in turn, is argued to contribute to the development of students' confidence in their linguistic competencies and their willingness to take risks in their learning. The study emphasizes the role of ChatGPT in supplying immediate performance feedback, enabling students to learn from their errors and adapt their approach in real-time. Augustini (2023), however, did not report on specific commands that students used with ChatGPT to improve their English language abilities, nor which specific skills students were trying to improve. The study shows the benefits of training students to use ChatGPT in order to enhance their autonomous learning.

ChatGPT to Enhance Learner Motivation

Ali et al. (2023) conducted a study to explore how ChatGPT influenced the motivation of English students, considering both the viewpoints of teachers and students. The researchers also aimed to identify potential differences in the perceptions of teachers and students. Their research looked at the attitudes of English language teachers regarding the impact of

ChatGPT on the learning process of English language learners. The participants were 42 English language teachers and 38 students who had access to ChatGPT in early 2023. In general, the results showed positive expectations regarding motivation to learn. All participants thought that ChatGPT would motivate learners to develop reading and writing skills. However, the results also showed neutral attitudes towards the effect of ChatGPT on developing listening and speaking skills. A further ANOVA discovered that more experienced teachers envisioned ChatGPT having positive influence on Listening and Speaking skills, while teachers with less experience did not. All participants were also asked to rate the perceived impact of ChatGPT on more specific types of motivations. Autonomy (independence and self-confidence), and intrinsic motivation (fun and enjoyment) rated high. Extrinsic motivation, such as eagerness to get a job (using English) also rated high. The researchers' findings suggest that utilizing ChatGPT for teaching purposes offers motivational benefits and is recommended as an effective tool for learning. More current research is needed to explore the motivational role for speaking and listening given the numerous application that have since been developed to actually converse with ChatGPT.

ChatGPT in Multilingual Learning

Quoting Rettburg (2022), Trust, Whalen, & Mouza (2023) warn that “ChatGPT is “multilingual but monocultural” because it has been trained “on English-language texts, with the cultural biases and values embedded in them” (p.8). However, according to Lai et al. (2023), ChatGPT was trained on a mix of training data from multiple languages. They note that although English constituted the majority, the combination of multilingual data contributed to ChatGPT’s abilities to accept inputs and generate responses in different languages. This, they argue, contributed to making ChatGPT widely adopted all over the world.

In a previous section of this paper, it was noted that ChatGPT’s translation capabilities were imperfect from English to Japanese and that it provided inadequate explanations when given commands in Japanese (Sakai, 2023). Rudolf, Tan & Tan (2023) similarly state that ChatGPT’s Chinese output lacked structure and had poor grammatical output.

Lai et al. (2023) state that ChatGPT has been mainly evaluated in English, using English data. The authors note that research so far has focused on limited languages and on limited tasks. The scarcity of research on a variety of languages and on a wide array of tasks make it difficult to draw conclusive comments on the usefulness of ChatGPT using such parameters.

Lai et al. (2023) completed what they think is the largest scale research so far on the topic. They aimed to more broadly evaluate ChatGPT’s performance on multiple languages over different natural language processing (NLP) tasks. They utilized 37 languages, representing high-, medium-, low-, and extremely low-resource languages, in order to show ChatGPT’s potential and limitations.

Their study included seven NLP tasks: Part-of-Speech (POS) Tagging, Named Entity Recognition (NER), Relation Classification, Natural Language Inference (NLI), Question Answering (QA), Common Sense Reasoning (CSR), and Summarization. The study employed the zero-shot learning setting for ChatGPT (where no human-provided examples are presented to the model). At the time of writing, Lai et al. (2023) findings demonstrated the following major tendencies:

- ChatGPT's zero-shot learning performance is generally worse than the state-of-the-art performance of the supervised learning models for a majority of the considered tasks across different languages, including high-, medium-, low-, and extremely-low resource languages. The performance gaps are usually very large, demonstrating the unfit of ChatGPT as a general solver for different NLP problems.
- ChatGPT's performance is generally better for English than for other languages, especially for higher-level tasks that require more complex reasoning abilities (e.g., named entity recognition, question answering, common sense reasoning, and summarization). The performance differences can be substantial for some tasks and lower-resource languages, which justifies the biases of ChatGPT for English and suggests the potentials of the development of language-specific models/LLMs for different languages and groups.
- ChatGPT can perform better with English prompts even though the task and input texts are intended for other languages, further confirming the biases toward English of ChatGPT. (p.3)

In short, Lai et al. (2023)'s study highlights ChatGPT's inferior results (in zero-shot learning setting) for NLP tasks in different languages. They conclude by advocating for the use and development of task-specific and language-specific models in different languages for NLP tasks to ensure best performance.

A need for alternative assessment in the age of ChatGPT

The fear of plagiarism and academic dishonesty is the most echoed criticism of ChatGPT (Ali et al., 2023; Baley, 20203; Benevides, 2023; Fitria, 2023; Hong, 2023; Kohnke, Moorhouse & Zou, 2023; Moqbel & Al-Kadi, 2023; Perkins, 2023; Rudolf, Tan & Tan, 2023; Trust, Whalen & Mouza, 2023; Yu, 2023). In the following, a summary of the arguments concerning the necessity of alternative assessments for language learning will be summarized.

First, Moqbel & Al-Kadi (2023) presented a theoretical account of foreign language assessment in the age of ChatGPT. They emphasize that, given the technological advances of AI such as ChatGPT, language education must turn to assessments where language performance is observable. Their paper reviews a long list of alternative forms of assessments that they say should replace traditional summative assessments. They detail various forms of alternative assessments, including examples of implementation and their limitations, such as

performance-based assessments, self-assessment, peer assessment, portfolios, games, and teacher observations. Moqbel & Al-Kadi (2023) state that, in the age of AI advancement, it is the responsibility of educators and education policy makers to revisit language learning policies to align them with more modern pedagogies. They further imply that it is now teachers' responsibility to adopt a ChatGPT mindset in their teaching and to construe "state-of-the-art assessments tools" (p. 81).

Similarly, Hong (2023) suggests that high-stake writing assessments should be done in class in traditional pen-and-paper fashion. Alternatively, he advocates for group writing that could incorporate presentations and/or audio and video recordings. Along with Rudolf, Tan & Tan (2023), Hong (2023) also urges for the flipped-classroom methodology to be implemented in language learning and teaching, which can promote more formative forms of assessments.

Furthermore, Yu (2023) argues for teaching methods and educational strategies, such as experiential learning, project-based learning, cooperative learning, inquiry-based learning, problem-based learning, and educational games to provide more interesting and efficient ways to develop the skills needed in the era of AI technologies. Yu (2023) also clearly points to the need to rethink the focus of education and to reevaluate curricula and the skills needed in the age of advancing AI technology. The author further calls for educational reforms through a comprehensive exploration of why there exists a disparity between school curricula, the demands of society, personal growth, and future trends, in order to identify shortcomings of the current educational system.

Challenges of Integrating ChatGPT in Education

All authors cited in this paper have written about the ethical challenges of integrating AI technologies, such as ChatGPT, into the field of education. The use of ChatGPT can lead to plagiarism and academic dishonesty from students, educators, and researchers alike. ChatGPT can produce convincing essays and research articles with fabricated references (Baidoo-Anu & Owusu Ansah, 2023; Perkins, 2023). In fact, "neither trained academic staff or technological tools can consistently determine whether a text is generated by an LLM or by a human" (Perkins, 2023, p.14). While it is true that ChatGPT can be used for cognitive offloading to save time, doing so while keeping academic and professional integrity could be challenging (Perkins, 2023). Similarly, over reliance on the AI bot from both students and educators can also actually lead to diminished critical thinking skills, instead of promoting them (Kasneeci et al., 2023). Furthermore, the information provided by ChatGPT is sometimes incorrect and/or biased because of the data it was trained on (Baidoo-Anu & Owusu Ansah, 2023; Fitria, 2023; Kary, 2023; Kasneeci et al., 2023; Trust, Whalen & Mouza, 2023), or because it lacks contextual understanding (Baidoo-Anu & Owusu Ansah, 2023). In a similar vein, ChatGPT is not culturally neutral (Baskara & Mukarto, 2023; Kohnke, Moorhouse & Zou, 2023). The availability of access to ChatGPT may also lead to further societal divides (Sato, 2023).

Finally, ChatGPT stores information on its users' queries, which could lead to problems of privacy (Baidoo-Anu & Owusu Ansah, 2023; Kasneci et al., 2023). In short, educators need to understand the strengths and limitations of using ChatGPT, and develop ways to use it responsibly and fairly to mitigate the ethical and legal issues surrounding its use.

Conclusion

ChatGPT is here to stay, and 21st-century education in the age of ChatGPT should promote and not discourage the integration of technology in language teaching and learning, especially at the level of tertiary education (Yu, 2023). Some researchers have found that most teachers have positive attitudes toward integrating ChatGPT in their English classes (Baley, 2023; Kasneci et al., 2023; Kim, 2023). A myriad of possible research ideas using ChatGPT have been proposed to advance the field of language education (Baskara & Mukarto, 2023; Yelsilyurt & Kartal, 2023). As ChatGPT was released only nine months ago at the time of writing, it is expected that more research will be published in the months and years to come, as language educators share their learning journeys and successful integration of the AI bot into their teaching and learning contexts.

At the same time, the forms of assessments must be re-considered in language education to avoid plagiarism and other ethical considerations (Hong, 2023; Moqbel & Al-Kadi, 2023; Rudolf, Tan & Tan, 2023; Yu, 2023). Doing so will lead to more creative and dynamic forms of assessments that are more appropriate and relevant to education and to the skills needed in society and the workplace post-graduation. It's important to note, however, that AI bots such as ChatGPT cannot replace teachers, but can provide ample assistance to both teachers and learners for a wide array of language skills (Sirichokcharoenkun, Tipayavaravan & Cao, 2023; Yelsilyurt & Kartal, 2023).

Finally, as exemplified in this paper by the reported commands successfully used with ChatGPT, ChatGPT is capable of understanding and executing English commands that are grammatically incorrect or incomplete. This is because ChatGPT is capable of providing complete answers to incomplete responses (Sallam, 2023). Because of this capability, it is hoped that language teachers and learners all over the globe will be encouraged and use ChatGPT to better their teaching and learning experiences. Finally, it is hoped that the specific commands reported in this paper will serve as a building block for language teachers to trial and experiment with ChatGPT.

References

- Ali, J. K. M., Shamsan, M. A. A., Hezam, T. A., & Mohammed, A. A. (2023). Impact of ChatGPT on learning motivation: Teachers and students' voices. *Journal of English Studies in Arabia Felix*, 2(1), 41-49.
<https://doi.org/10.56540/jesaf.v2i1.51>

- Anders, B., & Sahakyan, S. (2023). Chat GPT and AI presentation and Q&A [PowerPoint slides]. American University of Armenia Center for Teaching and Learning. <https://ctl.aua.am/view/uploads/entry/26/> (As cited in Trust, Whalen, & Mouza, 2023)
- Agustini, N. P. O. (2023). Examining the role of ChatGPT as a learning tool in promoting students' English language learning autonomy relevant to kurikulum merdeka belajar. *EDUKASIA: Jurnal Pendidikan dan Pembelajaran*, 4(2), 921-934. <https://jurnaledukasia.org/index.php/edukasia/article/view/373>
- Baidoo-Anu, D., & Owusu Ansah, L. (2023). Education in the era of generative artificial intelligence (AI): Understanding the potential benefits of ChatGPT in promoting teaching and learning. <http://dx.doi.org/10.2139/ssrn.4337484>
- Baley, D. (2023, April 29–30). ChatGPT in TESOL education: Friend or foe? [Conference presentation]. Korea TESOL International Conference, Seoul, Korea.
- Baskara, R., & Mukarto, M. (2023). Exploring the implications of ChatGPT for language learning in higher education. *IJELTAL (Indonesian Journal of English Language Teaching and Applied Linguistics)*, 7(2), 343-358. <https://ijeltal.org/index.php/ijeltal/article/view/1387>
- Benevides, M. (2023, May 13-14). *Students writing with AI: Cheating or enhanced scholarship?* [Conference presentation]. PanSIG 2023 Conference, Kyoto, Japan.
- Bridge, S. (2023, May 13-14). *Which CEFR-level checking tools are the best?* [Conference presentation]. PanSIG 2023 Conference, Kyoto, Japan.
- Buck, J. (2023, May 13-14). *Using ChatGPT-generated materials for IELTS preparation courses.* [Conference presentation]. PanSIG 2023 Conference, Kyoto, Japan.
- ChatGPT (2023, August 18). Who founded OpenAI? [Response to user question]. <https://chat.openai.com/c/3ada2aff-cb44-4942-a62b-4cdbb9d8d29e>
- DeepL (Kutyłowski, J., n.d.). DeepL SE, Cologne, Germany. <https://www.deepl.com/translator>
- Fitria, T. N. (2023). Artificial intelligence (AI) technology in OpenAI ChatGPT application: A review of ChatGPT in writing English essay. In *ELT Forum: Journal of English Language Teaching*, 12(1), 44-58. <https://doi.org/10.15294/elt.v12i1.64069>
- Fröhlich, T. (n.d). *Voice Control for ChatGPT*. [Computer software].
- GBAtemp (n.d.). *Talk-to-ChatGPT*. [Computer software].
- Hong, W. C. H. (2023). The impact of ChatGPT on foreign language teaching and learning: Opportunities in education and research. *Journal of Educational Technology and Innovation*, 5(1). <https://jeti.thewsu.org/index.php/cieti/article/view/103#:~:text=It%20is%20argued%20that%20ChatGPT,a%20more%20personalised%20learning%20experience.>
- Kary, S. (2023) Getting ready with ChatGPT for teachers [Online Course]. *Next Generation Teacher*. <https://nextgenerationteacher.com/course/getting-started-chatgpt-for-teachers>
- Kasneci, E., Sessler, K., Küchemann, S., Bannert, M., Dementieva, D., Fischer, F., Gasser, U., Groh, G., Günnerman, S., Hüllermeier, E., Krusche, S., Kutyniok, G., Michaeli, T., Nerdel, C., Pfeffer, J., Poquet, O., Sailer, M., Schmidt, A., Seidel, T., ... Kasneci, G. (2023). ChatGPT for good? On opportunities and challenges of large language models for education. *Learning and Individual*

- Differences*, 103, 102274. <https://doi.org/10.1016/j.lindif.2023.102274>
- Kim, K.-H. (2023, April 29–30). *AI in English ed.* [Conference presentation]. Korea TESOL International Conference, Seoul, Korea.
- Kohnke, L., Moorhouse, B. L., & Zou, D. (2023). ChatGPT for language teaching and learning. *RELC Journal*. <https://doi.org/10.1177/00336882231162868>
- Koraishi, O. (2023). Teaching English in the age of AI: Embracing ChatGPT to optimize EFL materials and assessment. *Language Education and Technology*, 3(1). <https://langedutech.com/letjournal/index.php/let/article/view/48/37>
- Lai, V. D., Ngo, N. T., Veyseh, A. P. B., Man, H., Dernoncourt, F., Bui, T., & Nguyen, T. H. (2023). ChatGPT beyond English: Towards a comprehensive evaluation of large language models in multilingual learning. <https://doi.org/10.48550/arXiv.2304.05613>
- Moqbel, M. S. S., & Al-Kadi, A. M. T. (2023). Foreign language learning assessment in the age of ChatGPT: A theoretical account. *Journal of English Studies in Arabia Felix*, 2(1), 71-84. <https://doi.org/10.56540/jesaf.v2i1.62>
- Perkins, M. (2023). Academic integrity considerations of AI large language models in the post-pandemic era: ChatGPT and beyond. *Journal of University Teaching & Learning Practice*, 20(2). <https://doi.org/10.53761/1.20.02.07>
- Raine, P. (2023). ChatGPT: Initial implications for language teaching and learning. *The Language Teacher*, 47(2), 38-41. <https://doi.org/10.37546/JALTTL47.2>
- Rettberg, J. (2022). ChatGPT is multilingual but monocultural, and it's learning your values. <https://jilltxt.net/right-now-chatgpt-is-multilingual-but-monocultural-but-its-learning-your-values>
- Ross, G., & Dennisson, J. (2023, May 13-14). *ChatGPT and speech recognition in the English for specific purposes classes.* [Conference presentation]. PanSIG 2023 Conference, Kyoto, Japan.
- Rudolph, J., Tan, S., & Tan, S. (2023). ChatGPT: Bullshit spewer or the end of traditional assessments in higher education? *Journal of Applied Learning and Teaching*, 6(1). <https://doi.org/10.37074/jalt.2023.6.1.9>
- Sato, Y. (2023, May 13-14). *Exploring the potential of metaverse and ChatGPT in ELT.* [Plenary presentation]. PanSIG 2023 Conference, Kyoto, Japan.
- Sakai, N. (2023). Investigating the feasibility of ChatGPT for personalized English language learning: A case study on its applicability to Japanese students. https://scholar.google.com/scholar?start=10&q=ChatGPT+language+teaching&hl=ja&as_sdt=0,5
- Sallam, M. (2023). The utility of ChatGPT as an example of large language models in healthcare education, research and practice: Systematic review on the future perspectives and potential limitations. *MedRxiv*. <https://doi.org/10.1101/2023.02.19.23286155>
- Sirichokcharoenkun, Y., Tipayavaravan, N., & Cao, L. (2023). ChatGPT: A new tool for English language teaching and learning at Vietnamese high schools. <https://edarxiv.org/m7k4y/>
- Trust, T., Whalen, J. & Mouza, C. (2023). ChatGPT: Challenges, opportunities, and implications for teacher education. *Contemporary Issues in Technology and Teacher Education*, 23(1), 1-23. <https://www.learntechlib.org/primary/p/222408/>

- Yelsilyurt, Y. E., & Kartal, G. (2023). *ChatGPT: A step-by-step guide for teachers, learners, teacher trainers and researchers*. Amazon Kindle Edition.
https://www.amazon.co.jp/gp/product/B0BVGJBS2L/ref=ppx_yo_dt_b_d_asin_title_o00?ie=UTF8&psc=1
- Yu, H. (2023). Reflection on whether ChatGPT should be banned by academia from the perspective of education and teaching. *Frontiers in Psychology, 14*, 1181712. <https://doi.org/10.3389/fpsyg.2023.1181712>
- Zhai, X. (2023). ChatGPT for next generation science learning. *SSRN Electronic Journal*. <https://doi.org/10.2139/ssrn.4331313> (As cited in Trust, Whalen, & Mouza, 2023)