

The Write Tool? Exploring the Use of ChatGPT to Improve Student Writing Skills

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Introduction / Need for Innovation or Idea

Generative artificial intelligence (AI) continues to increase in popularity and acceptability and is predicted to revolutionize the workplace (Horáková et al., 2017). As instructors prepare students for future careers, integrating generative AI into the curriculum allows both teacher and student the opportunity to explore its potential benefits or downfalls (Nguyen, 2023). At the same time, AI may serve as a valuable educational resource, lessening grading fatigue for educators (Gurugn et al., 2022), while also providing impactful learning experiences for students (Loeckx, 2016). While a variety of AI tools exist, ChatGPT was made public in November 2022 and set a record for the fastest-growing consumer application (Hu, 2022). ChatGPT has also been identified as a potential tool to help improve writing in educational settings (Hosseini et al., 2023). Writing skills have long been identified as important for college graduates (Ahrens et al., 2016). However, research has shown students face challenges when it comes to writing skills, confidence, and self-efficacy (Fischer & Meyers, 2018) and need diverse assignments to improve writing skills (Lawson et al., 2021). Given the prevalence of generative AI use and the challenges students face in terms of writing skills, an activity was designed for agricultural communication students to edit their own work with the aid of ChatGPT as a writing assistant.

How It Works

Students enrolled in a feature writing course at The Ohio State University were instructed to use ChatGPT to help edit one of their main feature stories prior to submission. The activity took place during class time, and after a demonstration by the instructor using an example piece of writing, students were instructed to visit chatgpt.com before adding their story and entering prompts that aimed to check the writing for issues with grammar, spelling, punctuation, and AP style. The instructor designed the prompts based on the observation of common writing issues in previous feature story submissions. Prompts included, “Can you edit my story for proper grammar, spelling, and punctuation? Here is my story: <copy and paste your story>,” followed by “Can you edit my story for AP style?” and lastly, “Can you check my quotes for AP style?” Students reviewed the results for each prompt by comparing the output to their original submission before moving on to other prompts. Here, students assessed output validity and made decisions about incorporating the suggestions into their story, highlighting and describing the changes within the document. Students were specifically instructed not to simply copy and paste results from ChatGPT, but to instead make careful and thoughtful decisions about possible changes. After making and outlining the edits, students uploaded their revised story to be graded. Students reflected on this experience by responding to prompts and items that aimed to capture perceptions and reactions about using ChatGPT to help with writing assignments. Students who completed the activity received 10 extra credit points.

Results to Date / Implications

Fifteen of 19 students completed the ChatGPT editing activity. While only seven students reported using an AI tool like ChatGPT before, all said they found the activity to be easy to perform, and most ($n = 14$) indicated ChatGPT was moderately to very useful as a writing tool. Students indicated that ChatGPT worked well for improvements to grammar, punctuation, and spelling. However, students raised concerns about the accuracy of some ChatGPT suggestions, especially regarding AP style. Students also reported frustration when ChatGPT suggested changes to direct quotes, which students recognized could not be changed, even for grammatical improvements. Overall, students described ChatGPT as a “useful tool” for refining and revising

their writing and catching simple writing mistakes. They said they appreciated the tool's assistance in the editing process, which reduced the time spent combing for minor errors and allowed them to spend more time on less technical needs like style, flow, and tone. Students also recognized and stressed the importance of having a good understanding of proper grammar, punctuation, and AP style to ensure ChatGPT-suggested changes were appropriate. They also noted that prompts must be carefully worded to ensure the outcome met their expectations. In their reflections, students raised concerns about the implications of increased AI use, including the risks of depending on AI for grammar and AP style knowledge instead of learning it, the potential loss of the human voice in art forms like writing, and being flagged for plagiarism.

From the instructor's perspective, the students' use of ChatGPT as a first-round proofreading tool appeared to improve the overall quality of submissions. Although data on instructor grading time and levels of grading fatigue for assignments submitted with and without the use of generative AI was not collected, the instructor felt that less time and effort was needed to correct technical errors in the assignment that promoted generative AI use. This allowed the for more time to provide feedback on elements not suited for generative AI such as the overall story structure, transitions, tone, or the need for additional supporting information or sources.

Future Plans / Advice to Others

As generative AI becomes increasingly common in higher education and workplaces (Horáková et al., 2017), this activity was a unique, easy, and impactful way to explore how generative AI tools can be used for writing (Hosseini et al., 2023; Lawson et al., 2021; Loeckx, 2016; Nguyen, 2023). As we navigate the risks and benefits of generative AI in higher education, instructors and students should work toward best practices for assignments and expectations in an effort to improve writing skills and self-efficacy (Ahrens et al., 2016; Fischer & Meyers, 2017). ChatGPT and similar tools offer chances to enhance writing skills but pose a threat to academic integrity. We recommend the cultivation of honest and open classroom spaces for teachers and students to talk about how to use generative AI tools together. For those interested in implementing a similar activity, we recommend taking time to carefully outline the activity's purpose and providing class time to conduct the activity in a group setting to allow for questions to be asked and addressed quickly and for the benefit of all. As evidenced in this study, students experienced benefits and considered threats related to generative AI use. To address these observations and concerns, we recommend open discussions with students about what proper and improper AI use looks like and the importance of evaluating the output of generative AI before integrating suggestions. Moving forward, we plan to continue working to establish guidelines, parameters, and best practices for writing-based courses that are suitable to both students and the instructor. As generative AI will continue to impact teaching and learning, and workforce needs (Horáková et al., 2017), we are eager to help students use these tools to become better communicators.

Costs / Resources Needed

There were minimal costs associated with, and few resources needed, to conduct this activity. Time was a needed resource, as the instructor needed to plan the ChatGPT activity, and students needed access to a computer with the internet. There was no direct cost to students as they used the free version of ChatGPT.

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