



Academic Writing Skills (Lab.) Lec2

First Stage
Dr. Safa Sami Abdul-Jabbar
2024

1. Which AI tools are best for academic writing?

ChatGPT, the conversational bot everyone's talking about, can assist scientific writing. From drafting a text, answering questions, summarizing articles from various disciplines, and highlighting research gaps, to finding academic papers, its capabilities are wide-ranging and powerful. We also tested it on its knowledge of the formulaic language and we found the quality of the answer was very good.

Therefore, to familiarize yourself with ChatGPT, an advanced conversational AI model developed by OpenAI. It's designed to understand and generate human-like text based on the input it receives. Such as:

1- We can explore ChatGPT and understand its benefits by inputting specific queries into it, as demonstrated in the following examples:

- "ChatGPT is an artificial intelligence developed by OpenAI."
- "It employs natural language processing to comprehend and produce text that resembles human speech."
- "Users can engage with ChatGPT across a variety of platforms, such as websites and applications."

2- Proofreading: Using ChatGPT for proofreading can help identify grammatical errors, awkward phrasing, and clarity issues. Here are three examples of how you can utilize ChatGPT for proofreading:

- Sentence Structure: Input: "Could you please check if the following sentence is grammatically correct? 'The cat sat on the mat.'" Response: "Yes, the sentence 'The cat sat on the mat' is grammatically correct. However, you may consider adding more descriptive details to enhance the clarity and vividness of the imagery."
- Grammar Check: Input: "I'm unsure if I've used the correct tense in this sentence:

'She had went to the store yesterday.' Could you help me correct it?" Response: "Certainly! The correct tense in your sentence should be 'She had gone to the store yesterday.' 'Went' is the past tense form of 'go,' but 'gone' is the correct past participle form when used with 'had.'"

- Clarity Improvement: Input: "I'm not sure if this paragraph flows well. Can you help me improve its clarity? 'The research study aimed to investigate the effects of social media on teenagers. It was found that excessive use of social media can lead to negative impacts on mental health. Therefore, measures should be taken to limit screen time.'" Response: "Your paragraph is clear, but it could benefit from smoother transitions between sentences. Here's a revised version: 'The research study aimed to investigate the effects of social media on teenagers and revealed that excessive use can negatively impact mental health. Therefore, implementing measures to limit screen time is recommended.'"

3- Drafting Text: Start by drafting your text directly in the ChatGPT interface. You can provide prompts or questions related to your scientific writing project, and ChatGPT will generate responses based on the input.

- Prompt: "Can you help me draft an introduction for my research paper on renewable energy?"

Response: "Renewable energy sources, such as solar and wind power, have emerged as promising alternatives to traditional fossil fuels."

- Prompt: "I need assistance crafting a hypothesis for my biology experiment."

Response: "Based on our observations, we hypothesize that increased exposure to UV radiation will result in higher rates of mutation in plant DNA."

- Prompt: "Could you generate a conclusion paragraph summarizing our findings on climate change?"

Response: "In conclusion, our study highlights the urgent need for global action

to mitigate the effects of climate change and transition to sustainable practices."

4- Asking Questions: If you have specific questions about your research topic or need clarification on certain concepts, you can ask ChatGPT directly. It can provide explanations, definitions, or further insights into the topic.

➤ Question: "What are the key components of DNA replication?"

Response: "DNA replication involves three main stages: initiation, elongation, and termination."

➤ Question: "Can you explain the concept of quantum entanglement?"

Response: "Quantum entanglement refers to the phenomenon where two or more particles become interconnected and exhibit correlated properties, regardless of the distance between them."

➤ Question: "How does the greenhouse effect contribute to global warming?"

Response: "The greenhouse effect occurs when greenhouse gases trap heat in the Earth's atmosphere, leading to a gradual increase in global temperatures."

5- Summarizing Articles: ChatGPT can help you summarize articles from various disciplines by providing concise and relevant summaries based on the content you provide. Simply input the text or key points of the article, and ChatGPT will generate a summary for you.

➤ Prompt: "Please summarize the key findings of the research article on cancer immunotherapy."

Response: "The research article explores the efficacy of cancer immunotherapy in enhancing the body's immune response to tumor cells, resulting in improved patient outcomes."

➤ Prompt: "Could you provide a summary of the literature review on artificial intelligence in healthcare?"

Response: "The literature review examines the applications of artificial intelligence in various healthcare domains, including disease diagnosis, treatment optimization, and patient care management."

- Prompt: "What are the main arguments presented in the article discussing the impact of climate change on biodiversity?"

Response: "The article highlights the detrimental effects of climate change on biodiversity, including habitat loss, species extinction, and disruption of ecosystems."