

ARTIFICIAL INTELLIGENCE FOR WRITING ENGLISH ESSAYS: A COMPARATIVE STUDY OF CHATGPT AND PERPLEXITY AI

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Abstract

Artificial Intelligence (AI) is playing a multifaceted role in academic writing. This study aims to examine the efficacy of advanced AI chatbots, such as ChatGPT and Perplexity, in producing argumentative writings. Using a qualitative methodology, the study examined information gathered via document reviews. These AI chatbots are excellent at writing persuasive essays, according to a thorough examination. The chatbots respond to predetermined instructions to produce text that is relevant to the topic at hand. The generated information is more pertinent and educational when the prompt is more specific. Furthermore, ChatGPT and Perplexity AI provide helpful writing advice and even recommend websites for additional help. However, it is crucial to recognize AI's limitations and strike a balance between its use and human development as well as the improvement of students' writing abilities.

Keywords: Artificial Intelligence, ChatGPT, Perplexity, English essay writing, comparative study

Introduction

As a result of development in Artificial Intelligence, machine learning, and deep learning, machines have begun to simulate human behavior (Fitria, 2021b). Today, we exist in the world of advanced intelligent machines (Nuruzzaman and Hussain, 2018). Machines now have the capability to behave similar to humans due to advancements in several fields like artificial intelligence, deep learning, machine learning, etc. The development of chatbots more specifically pertain to computers which have conversational software agents powered through natural language processing. With the rapid advancement of AI technology, there have -surprisingly -been newer model AI systems rapidly emerging into the arena. Those are positively contributing to all human activities as everyday tasks can now be performed quickly and conveniently (Putra, 2020). AI and other related technologies are rapidly continuously integrating into our daily lives (Tlili et al., 2023). In other words, the sophisticated advancement of technology allows people to complete tasks efficiently by utilizing a range of AI-powered solutions (Fitria, 2021a). There are an endless amount of AI powered technologies that can assist in an assortment of tasks such as editing, content creation, and text writing or information retrieval. Artificial Intelligence (AI) has transformed education and research (Alqahtani et al., 2023). New advances in AI have made it possible to use chatbots as a practical language-learning tool (Barrot, 2023). AI has allowed programmers to produce texts with human-like meaning, so chatbots have attracted a lot of attention lately. Many people have praised the ability of new conversation applications to produce genuine and human-like essays (Uludag, 2023). This AI-powered discussion platform has gained the respect and

admiration of a large portion of internet users because of its ability to respond to questions in an automated, timely, and thorough manner (Fitria, 2023).

An application designed to mimic human-like interactions in response to user inquiries is known as a GPT chatbot. Its AI technology is capable of understanding natural human language and producing written content that is similar to what a human would produce. As most of us know, ChatGPT has gained a lot of attention lately in the social media space. On Twitter itself, a lot of people talk about how ChatGPT can produce text in different styles. These formats include creative writing, formal writing, and casual writing. His writing has a human-like quality to it in terms of the content, consistency, and linguistic style of what he writes. The capacity of the ChatGPT prototype to think on its own and create text has impressed a great number of people ever since it was made available for testing by the general public toward the end of November 2022. The English terms "chat," which means "interview," and "bot," which is an acronym for "robot," were combined to form the term "chatbot." Thus, a chatbot is a computer program that allows users to communicate with a computer using voice recognition or keyboard input based on natural language. Without requiring human input, a chatbot is a computer software that mimics human speech by repeating preprogrammed patterns. This gives chatbots access to a knowledge base that has been stored (Arifi et al., 2019). From this base, they select actions and responses by looking for similarities between the questions posed and the questions or answers previously generated by programmers. A chatbot is a computer program designed to simulate human conversation and personality, and it can engage in uncomplicated conversations with human participants (Rice & Gregor, 2016).

Problem Statement

The usefulness of advanced AI chatbots like ChatGPT and Perplexity AI in producing excellent argumentative essays is not well understood, despite their increasing use in educational settings. This raises questions regarding the validity of text produced by AI and how it affects students' development of writing skills.

Aim of the Study

The aim of this study is to assess how well ChatGPT and Perplexity AI produce argumentative essays that are convincing. It looks at how these chatbots react to particular commands, how pertinent and educational the information they produce is, and what extra assistance they offer like writing advice and resource recommendations.

Significance of the Study

The findings of this research contribute to understanding the capabilities and limitations of AI chatbots in academic writing. Educators and students can benefit from insights into how AI tools can support essay writing while emphasizing the importance of balancing AI assistance with human skill development to foster critical thinking and writing proficiency.

Literature Review

At the start of the current decade, a sizable number of chatbots were developed (Molnár & Szüts, 2018). In the realm of online conversations, interactive technology—often in conjunction with artificial intelligence—has quickly taken over. Chatbots and artificial intelligence have its roots in the 1950s, when researchers first started looking into the idea. ELIZA, the first artificial intelligence computer created to simulate human speech, was one of the early innovations (King, 2023). More complicated chatbots that could understand and react to intricate inquiries were developed in the ensuing decades as a result of developments in AI technology. Today, chatbots

and AI are used in many different businesses. Many internet users have started utilizing AI tools to get the answers they are looking for. The world has been enthralled by the appearance of an artificial intelligence-powered chatbot that can produce human-like words and write cohesive essays (Shahriar & Hayawi, 2023). There is no denying that the company's Chatbot, which has since advanced to other versions like GPT-4, can quickly generate essays and summaries in addition to providing basic answers to questions. Among its millions of users are students. Many people take advantage of its convenience in answering inquiries and assisting with other activities, and they develop inventive and safe methods to use it. With the rise of ChatGPT and other AI chatbots, the internet appears to be entering a new era, with traditional search engines gradually beginning to play a part. According to the most recent BBC News story, several students have acknowledged using ChatGPT to write their essays, and one student even declined to be named despite receiving the top grade thanks to a chatbot. The student wrote two essays totaling 2,500 words with the assistance of ChatGPT. One article was written with a chatbot's assistance, whereas the other was written without one. AI-generated essays receive a first-class grade, which is the best a student may receive at a university. According to the student, he utilized ChatGPT to ask questions rather than write word-for-word essays, which allowed him to obtain knowledge more quickly than normal. Affective, open, and cogent communication between students and chatbots appeared to promote their social presence. Several obstacles to the use of chatbots have been identified, including technological limitations, novelty effects, and cognitive burdens. Writing is an essential component of the writing process, students who are not native English speakers frequently struggle with the written form of the language, which prevents them from actively participating in writing activities (Nagata et al., 2020). The development of academic writing abilities requires a significant investment of time on the part of teachers (Lin, 2020). It's still unknown how colleges and universities will respond to this breakthrough, even if teachers may face difficulties when students use AI chatbots. One idea is that schools should mandate more in-class essays rather than ones that are completed at home, which would reduce cheating and the need for students to use AI chatbots for help. Concerns have been raised by the usage of ChatGPT and other AI technologies in the classroom, and it is unclear how educational institutions and schools will handle these new difficulties.

Three technological affordances in chatbots—timeliness, usability, and personalization—as well as five educational applications—as recommendation engines, helplines, simulations, interlocutors, and transmission—were identified by Huang et al. (2022).

The advantages of AI are growing. Assisting pupils in writing term papers or essays for their coursework is one of them. Naturally, pupils will need a lot more time to write if they write in a traditional manner without the aid of chatbots (Setiawan & Luthfiyani, 2023). This is because it incorporates some competency development exercises, such critical thinking through prewriting an outline and reading and comprehending multiple references about chatbots or artificial intelligence from the library or Google search results. According to Fitria (2023), numerous attempts to use ChatGPT have shown that it is capable of accurately answering all queries regarding a broad variety of themes, including English essays on issues like descriptive text and retelling text about personal experience. In the researcher intends to continue research on a broader scale, the intention is to describe or review the use of other chatbot applications besides ChatGPT in writing English essays. ChatGPT takes into account both the order of writing and the sequence of occurrences. Using primary, explanatory, and ending sentences is part of this. Along with the

passive voice, it also uses the active voice. Furthermore, it examines how tenses are used in an essay according to the given topic. However, based on multiple examples of English essays produced by ChatGPT, further research is necessary to ascertain whether or not the essay outputs are grammatically correct. This study builds on earlier research that is still relevant to the usage of chatbots, particularly ChatGPT, for English essay writing. In this study, researchers will employ different forms of writing, such as argumentative text, whereas in a prior study, descriptive and recount texts were used to compose essays. An essay that discusses both sides of a topic is known as an argumentative essay. The author adopts a position on the matter and backs it up with facts. In order to ascertain the capabilities of these tools in producing English essays and to outline the distinctions between the three, including their benefits and drawbacks, the researcher plans to employ other chatbot tools, such as ChatGPT, Perplexity AI. Thus, reviewing the capabilities of chatbot technologies like ChatGPT and Perplexity AI is the goal of the study.

Research Methodology

This research is descriptive qualitative research. In essence, qualitative research is characterized by in-depth analysis and results theory as a means of explaining occurrences (Rosyada, 2020). The researcher is directly involved in all of these study operations, which will facilitate the disclosure of all information or data gathered. The study's findings include a thorough explanation and description of a specific occurrence along with a comprehensive, in-depth, and extensive understanding of it (Semiawan, 2010). The phenomenon of chatbot applications in English essay writing is explained by the researcher in this study. The researcher will give a detailed account of how chatbot applications are used. Documents are the data collection method employed in this study. Examining textual, illustrated, and electronic documents is a method of gathering data known as document study (Fitria, 2022b). To create a single study result that is systematic, cohesive, and comprehensive, the collected documents are subsequently examined, contrasted, and integrated (synthesised) (Fitria, 2022a). Thus, the researcher develops the study of these documents' outcomes. In this study, the researcher employs online tools or chatbot programs, such as ChatGPT, Perplexity AI, to analyze electronic documents. According to Miles et al. (2018), the three processes of qualitative analysis—data reduction, data display, and conclusion—are used in this study's data analysis process. By summarizing, selecting the most important information, and concentrating on the most important aspects, the researcher decreases the data at the reduction step. Researchers typically exhibit data in the form of brief descriptions, images, and similar visuals. In qualitative research, narrative writing is most commonly employed to provide data. Additionally, scientists came at previously undiscovered conclusions. Research findings can take the shape of a description or an explanation of an object that was before unclear but now makes sense.

Analysis and Discussion

a. ChatGPT

On November 30, 2022, OpenAI made ChatGPT available to the public. Future-generation artificial intelligence ChatGPT has a highly developed ability to write, solve coding problems, and respond to inquiries (Alkaissi & McFarlane, 2023; Hopkins et al., 2023). The program known as ChatGPT is a generative language that uses technology to predict the next text command or sentence (Fitria, 2023). To put it simply, ChatGPT is a chatbot—a computer program that mimics human speech and is shaped like a virtual robot. Because it can solve any problem, this platform is believed to be able to replace Google. OpenAI's ChatGPT can offer thorough answers to difficult

questions. As a result, ChatGPT is more intelligent than other chatbots. A form of InstructGPT called ChatGPT OpenAI has been trained to follow directions and quickly offer thorough answers. One interesting feature of OpenAI's ChatGPT is its ability to remember previously posed questions and self-correct based on user input. Because ChatGPT can assist people in their work and offer novel experiences that differ from search engines in general, its existence is a result of advancements in digital technology. Within three months of its inception, ChatGPT secured 100 million users. This type of AI can complete text-based tasks such as copywriting, writing news reports, answering customer service questions. This model is able to comprehend intricate natural language, identify context, and respond appropriately to queries. ChatGPT has advanced significantly in recent years and is now a priceless tool for many uses, including sentiment analysis, language translation, and chatbot building. ChatGPT can be utilized in chatbot creation to enhance the responsiveness and quality of chatbots, hence improving user experience. In addition, ChatGPT can be used to compose articles, translate languages, and even create material for social media. Furthermore, among many other things, ChatGPT can be utilized for emotion analysis and the creation of customized services. The implications of OpenAI's novel chatbot ChatGPT for academic writing are mainly unknown.

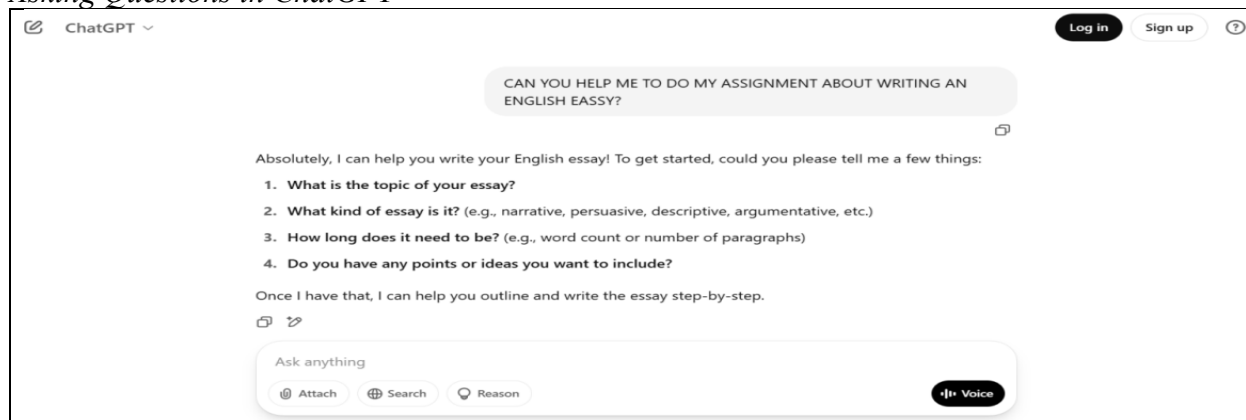
Deep learning techniques are used by ChatGPT's brains to comprehend human language. ChatGPT can respond to user requests and naturally carry on discussions in a variety of languages. Because ChatGPT is built with deep learning techniques, it can produce word patterns depending on what it learns from a given text set. OpenAI created ChatGPT, a natural language model that can have conversations that sound human. If we type our inquiries into the text section, ChatGPT will respond. To use ChatGPT, we just need to open a browser. <https://openai.com/chatGPT> is the URL we use.

Microsoft or Google accounts offer a simple login process. First, we can click Create OpenAI Account after selecting Sign-Up. We can sign up using Microsoft, Google, or email. After obtaining the confirmation number, we select Personal Use and input it on the registration screen. After creating an account, we can log in right away. We can log in after creating an account. Use ChatGPT by logging in right now. A free chatbot is provided by ChatGPT. We can type queries in the bottom column of the main page. The chatbot can answer questions in Indonesian. User-friendly grammar will be used in the responses. We can pose a number of essay questions in English. The response will then be shown right away.

The researcher tries to ask ChatGPT to write an argumentative essay. The description can be seen in the figure below:

Figure1

Asking Questions in ChatGPT



The researcher asks ChatGPT “Can you help me to do my assignment about writing an English essay?”, ChatGPT answers “Of course! I'd be happy to help you with your English essay assignment. Please let me know the topic or prompt of your essay, and any specific guidelines or requirements provided by your instructor. Additionally, if you have any specific questions or areas where you need assistance, feel free to let me know”.

Figure2

Answering Questions in ChatGPT (1)

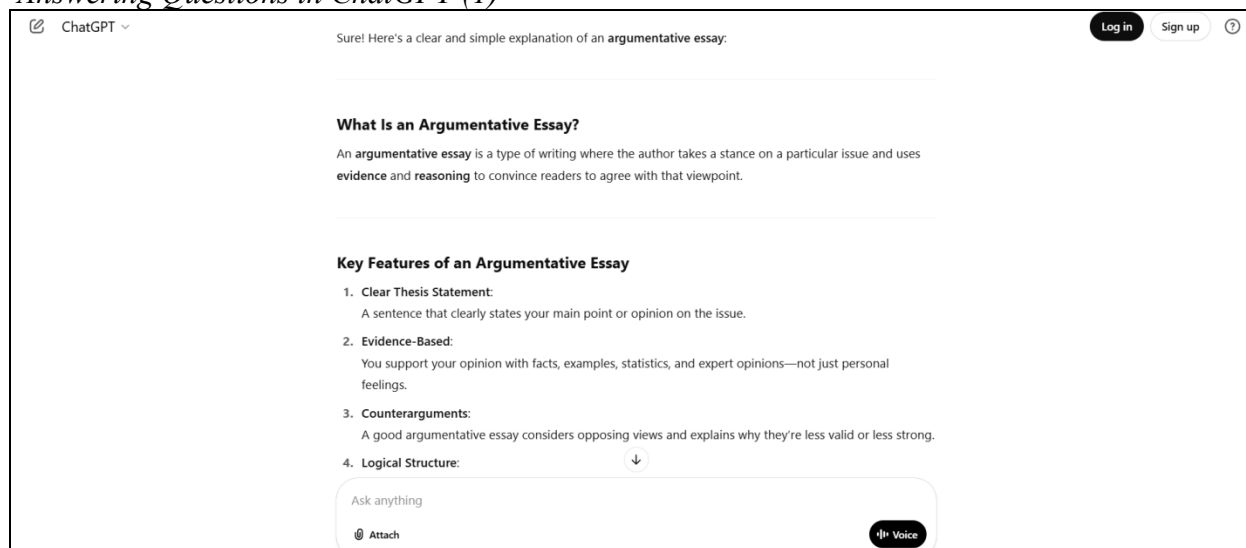
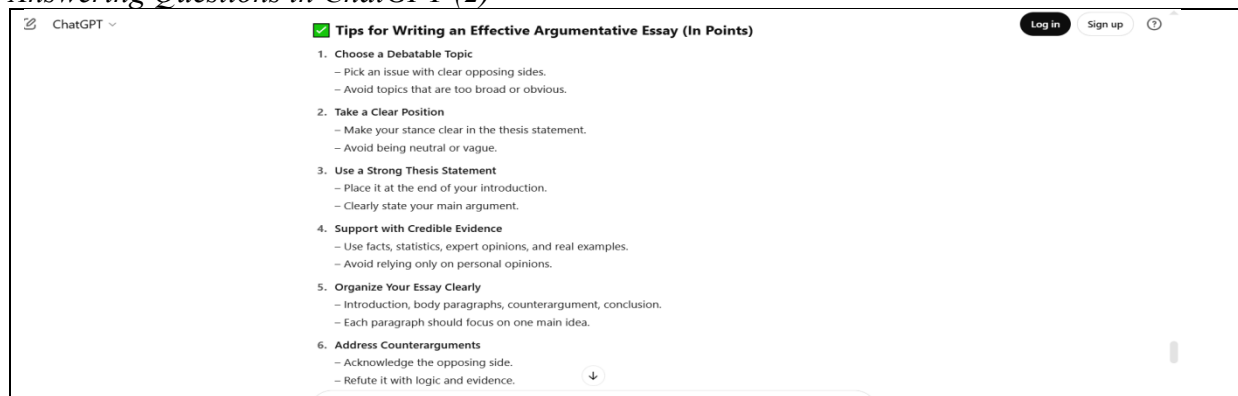


Figure3

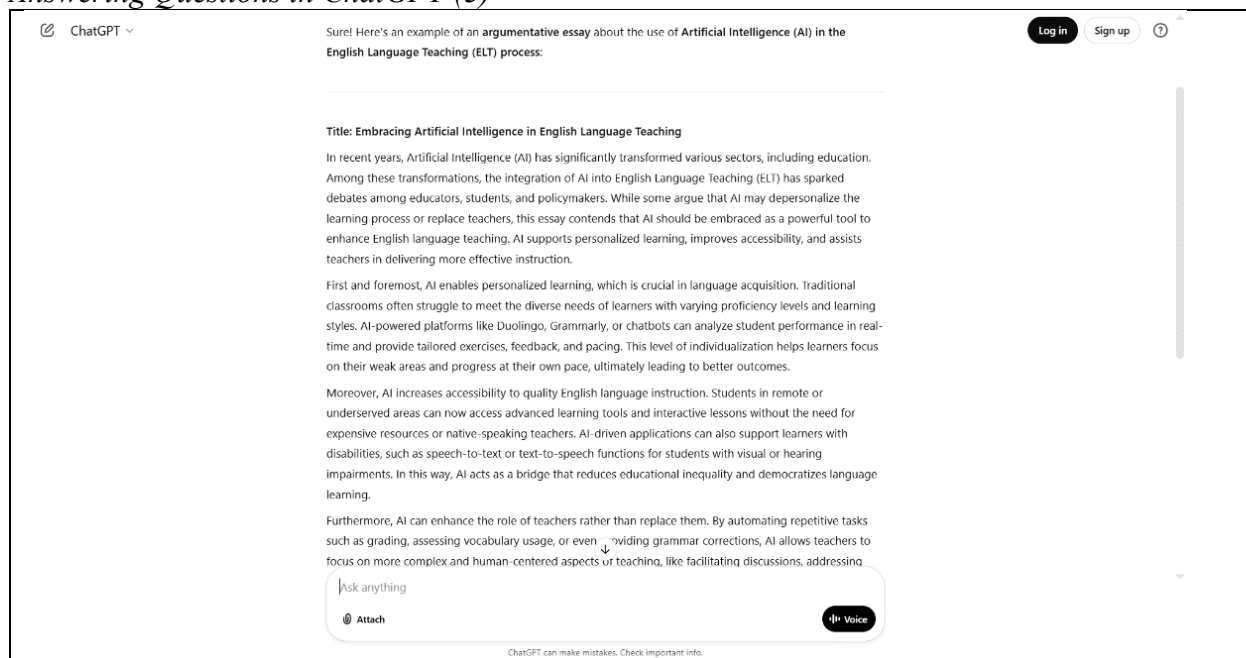
Answering Questions in ChatGPT (2)



The researcher asks ChatGPT "Can you tell me about the 'Argumentative Essay?'". ChatGPT answered, "Certainly! An argumentative essay is a type of essay where you present a central claim or argument and provide evidence and reasoning to support that claim. The goal of an argumentative essay is to persuade the reader to agree with your viewpoint or take a specific action. Here are the key elements of an argumentative essay: Introduction, Body paragraphs, Counterarguments, and Conclusion. Tips for writing an effective argumentative essay: choose a clear and debatable topic, conduct thorough research, structure your essay effectively, use persuasive language, and revise and edit". It shows that ChatGPT can answer the definition of an argumentative essay, besides giving tips for writing an effective argumentative essay.

Figure4

Answering Questions in ChatGPT (3)



The researcher requests ChatGPT to "provide me with a multi-paragraph argumentative essay about Artificial Intelligence (AI) in the English Language Teaching (ELT) process." ChatGPT responds, "Of course! The use of artificial intelligence (AI) in the English Language Teaching

(ELT) process is illustrated in this sample persuasive essay. The impact of artificial intelligence (AI) in English language teaching is the title of an argumentative essay written by ChatGPT. The introduction states that AI has transformed a number of industries and that its potential in education, particularly in English language teaching (ELT), cannot be understated. The benefits of AI in the ELT process are examined in this essay, including improved accessibility, more individualized learning, effective feedback systems, and improved language assessment.

After that, compose a number of paragraphs, including one about personalized learning, two about effective feedback mechanisms, three about improved language assessment, four about increased accessibility, and a conclusion. "This is just one possible way to structure an argumentative essay on the topic," ChatGPT even notes. To bolster our case, users can provide more proof, examples from real-world situations, and supporting details to each paragraph.

b) Perplexity AI

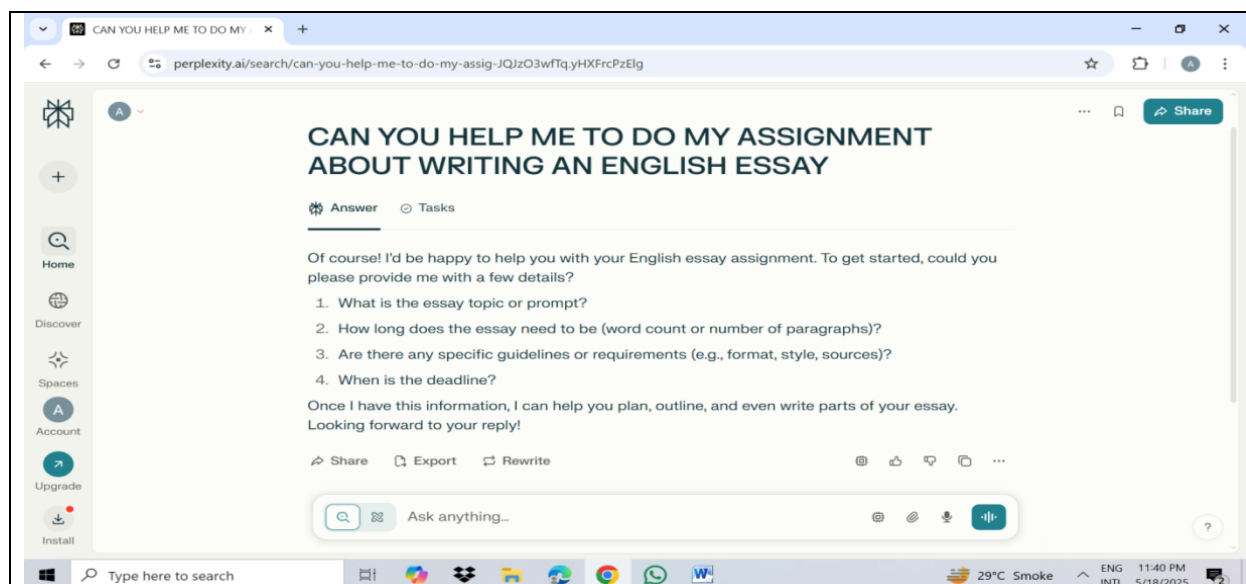
Using OpenAI GPT 3.5, Perplexity AI (www.perplexity.ai) is a response engine created especially to deliver succinct information. Perplexity has the superpower to answer queries by adding quotes and references that show where the knowledge came from. Each response becomes more trustworthy as a result. For those seeking a free, competitive, and easily accessible AI chatbot, Perplexity AI is worth a try. A website platform called Perplexity AI has AI technology built into it that operates on its own. Users can write certain sentences more easily or find information more conveniently thanks to Perplexity AI. One very helpful property of Perplexity AI is that it makes it simple to quench our curiosity about specific facts.

This particular AI website's search engine features are quite dependable and capable of offering comprehensive search results in addition to trustworthy information sources. Simply said, Perplexity AI is an answering system that uses a language model to try to deliver precise responses to inquiries. The look is pretty much the same as Google's, with a search bar at the top and a column with the search results page at the bottom. Perplexity AI has the advantage of being able to deliver accurate and up-to-date information, preventing it from giving outdated information. Use our browser to search for "perplexity.ai," or go to www.perplexity.ai. In the "Ask anything..." section, type our questions.

You can follow the steps below to add it as an extension. Go to the website, click "Add to Chrome," and select Add the Extension. Now, we also can use it as an extension on your browser. Answers can be reviewed, and their sources or citations can be viewed. In addition, we can request a follow-up inquiry to our inquiries. Just enter our request in the search bar and click the blue arrow to pose a question to the model. Examine the sources and Perplexity AI's response. Using the "Ask a follow-up" bar below, pose another query. For instance, when you search in Indonesian, the results will typically return the language used in the search, even when it is not yet accessible in other languages. Additionally, we may utilize it as a browser extension. The researcher tries to ask Perplexity AI to write an argumentative essay. The description can be seen in the figure below:

Figure 5

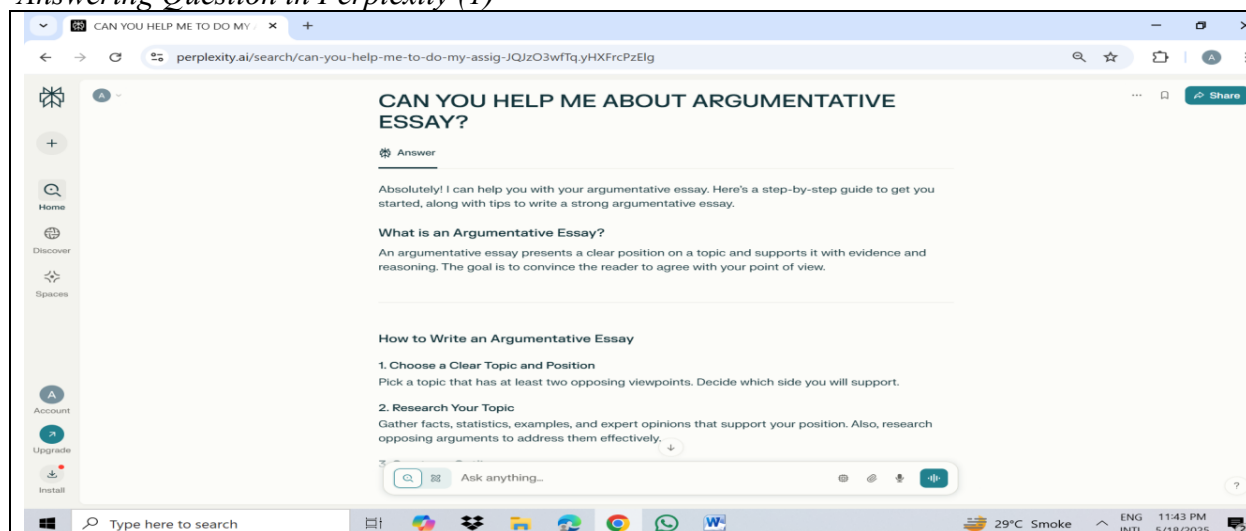
Asking Questions in Perplexity



The researcher asks “Can you help me to do my assignment about writing an English essay?”. The Perplexity AI answers “Yes, I can help you with your English essay assignment. There are several options available to you, depending on your needs. One option is to seek help from an online writing service such as EduBirdie or DoMyEssay. Another option is to use online tools such as ChatGPT5, which can help you generate ideas and structure your essay. Finally, you can follow some essay-writing tips to help you write a great essay. These tips include breaking up the assignment into manageable steps, creating an outline, and focusing on conflict and change in your writing. By following these tips, you can make the essay writing process more manageable and enjoyable. I hope these options help you with your English essay assignment”.

Figure 6

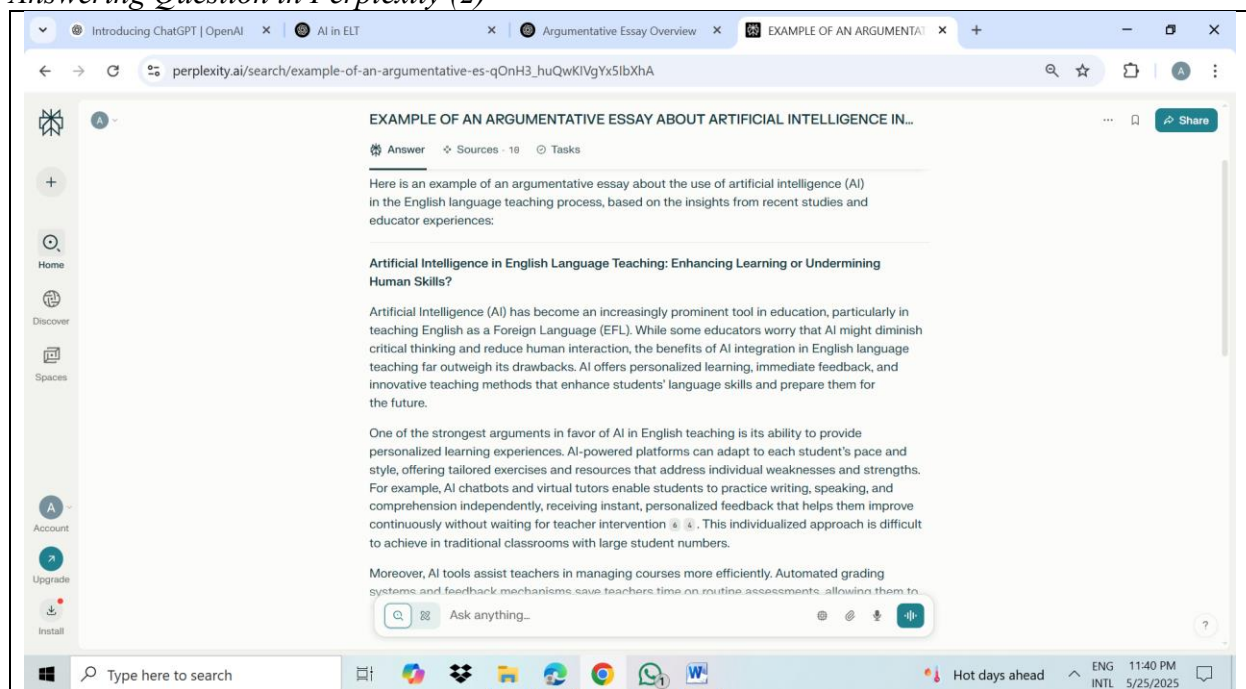
Answering Question in Perplexity (1)



The researcher asks “Can you tell me about 'Argumentative Essay?'”. The Perplexity AI answers “An argumentative essay is a type of essay that presents arguments about both sides of an issue. The writer takes a stance on the issue and presents evidence to support their argument. Here are some tips to write an argumentative essay such as explaining the issue (two opposing sides), and creating an outline (an introduction, body paragraphs, and a conclusion). In the introduction, provide background information on the topic and state the thesis statement, in the body paragraphs, present your arguments and provide evidence to support them, address counterarguments, and refute them with evidence. While, in the conclusion, summarize your arguments and restate your thesis statement. If you need help with our argumentative essay, several online writing services such as EduBirdie and DoMyEssay offer professional writers who can help us with our assignment. We can also use online tools such as ChatGPT5 to generate ideas and structure our essays.

Figure7

Answering Question in Perplexity (2)



"Give me a multi-paragraph argumentative essay about Artificial Intelligence (AI) in the English Language Teaching (ELT) process," the researchers ask. The tool initially presents the impact of artificial intelligence (AI) on English language teaching (ELT). The Perplexity AI response, "Artificial Intelligence (AI) has become an integral part of our lives, and its impact on ELT is a topic of debate," demonstrates this. "There are some arguments for and against the use of AI in ELT," the Perplexity AI continues. Increased effectiveness, individualized learning, and enhanced language acquisition are some of the justifications for AI in ELT. However, the lack of human interaction, ethical issues, and job displacement are some of the arguments against AI in ELT. Then, in conclusion, it shows that “AI has the potential to improve certain aspects of ELT, but it cannot replace the human interaction that is essential for language learning. Therefore, it is important to use AI in a way that complements and enhances the role of teachers in the ELT process”.

Discussion

"Give me a multi-paragraph argumentative essay about Artificial Intelligence (AI) in the English Language Teaching (ELT) process," the researchers ask. The tool initially presents the impact of artificial intelligence (AI) on English language teaching (ELT). The Perplexity AI response, "Artificial Intelligence (AI) has become an integral part of our lives, and its impact on ELT is a topic of debate," demonstrates this. "There are some arguments for and against the use of AI in ELT," the Perplexity AI continues. Increased effectiveness, individualized learning, and enhanced language acquisition are some of the justifications for AI in ELT. However, the lack of human interaction, ethical issues, and job displacement are some of the arguments against AI in ELT. Using OpenAI GPT 3.5, Perplexity AI (www.perplexity.ai) is a response engine created especially to deliver succinct information. Perplexity has the superpower to answer queries by adding quotes and references that show where the knowledge came from. Each response becomes more trustworthy as a result. For those seeking a free, competitive, and easily accessible AI chatbot, Perplexity AI is worth a try. A website platform called Perplexity AI has AI technology built into it that operates on its own. Users can write certain sentences more easily or find information more conveniently thanks to Perplexity AI. One very helpful property of Perplexity AI is that it makes it simple to quench our curiosity about specific facts.

The answers and responses will appear instantaneously. To get started with ChatGPT, go to <https://openai.com/chatGPT>. The researcher asks ChatGPT, "Can you help me with my English essay assignment?" In response, ChatGPT says, "I'll help you with your English essay." Please let me know the topic of your essay and the suggestions made by your teacher. Tell me if you need assistance or if you have any particular questions. ChatGPT is asked by the researcher, "Can you tell me about the 'Argumentative Essay?'" In response, ChatGPT said, "Argumentative essays present a basic idea and bolster it with reasoning and data. Body paragraphs, arguments, conclusion, and introduction are the elements of an argumentative essay. Advice for writing an argumentative essay: choose a topic that is both clear and debatable, do your research, organize your work well, use strong language, and proofread and edit.

ChatGPT can offer writing advice and describe an argumentative essay. The researcher requests ChatGPT to "provide me with a multi-paragraph argumentative essay about Artificial Intelligence (AI) in the English Language Teaching (ELT) process." From the title, introduction, argument/paragraphs, and conclusion, ChatGPT composes an argumentative essay in a systematic manner. The benefits of AI in the ELT process are examined in this essay, including improved accessibility, more individualized learning, effective feedback systems, and improved language assessment. Second, we can go to www.perplexity.ai to use Perplexity AI. "Can you help me with my assignment about writing an English essay?" the researcher asks. "Yes, I can assist you with your English essay assignment," the Perplexity AI responds. You have a number of options, like ChatGPT5, DoMyEssay, and EduBirdie.

To produce an excellent essay, we might adhere to a few essay-writing guidelines. These suggestions include making an outline, concentrating on conflict and change, and segmenting the project into manageable sections. "Can you tell me about 'Argumentative Essay?'" the researcher queries. "Argumentative essays give opposing viewpoints," the Perplexity AI responds. This chatbot develops a plan (introduction, body paragraphs, and conclusion) and discusses the topic (two opposing viewpoints).

This chatbot provides further information about the outline's content and even recommends a number of online writing services, such as ChatGPT5 and EduBirdie and DoMyEssay, to help with essay structure and idea generation. "Give me an argumentative essay about AI in the ELT process which consists of several paragraphs," the researchers ask. The impact of AI on ELT is introduced by Perplexity AI. A number of arguments for and against the use of AI in ELT are added by Perplexity AI. Personalized learning, more efficiency, and better language acquisition are among the arguments. A conclusion follows the arguments against AI in ELT, which include employment displacement, ethical problems, and a lack of human engagement.

Differences between ChatGPT with Perplexity AI

Since AI is the primary driver of both Perplexity AI and Chat GPT's intelligence capabilities, a comparison between the two is inevitable. Despite their similarities, these two tools differ in a few ways. OpenAI created the language model known as GPT Chat. This model creates text in a manner similar to that of humans by using deep learning. It is a sophisticated machine learning model that can accurately complete NLG (Natural Language Generation) tasks. Perplexity AI, on the other hand, is a device that lets us ask different queries to pique our interest. This instrument is a metric for assessing language models. From this brief definition, it can be seen that these two tools are quite different. In this case, the difference between Perplexity AI and GPT Chat is that GPT Chat is a language model, while Perplexity AI is a combination of GPT Chat and the Google search engine. Perplexity searches the internet for answers to queries posed and pulls information from specific sources. Nowadays, a lot of Indonesians, particularly students, have begun using it to create assignments quickly (Fitria, 2023). According to Fitria (2023), ChatGPT can accurately answer any query on a variety of subjects, including English essays on subjects like descriptive text, retelling text about personal experience, memorable occurrences, resolution, and future employment. She says that all questions about the GPT itself can be accurately answered by ChatGPT.

Both the chronological sequence of the events and the order in which they are written are taken into consideration by ChatGPT. Using phrase kinds like opening, explanatory, and concluding sentences is part of this. Throughout its text, it employs both the active and passive constructions. Besides that, it looks at how an essay's tenses are used according to the topic it was assigned. However, additional research is required to determine whether or not the essay outputs contain proper grammar, based on numerous instances of English essays produced by ChatGPT. Even if the writings were written in English, this would still be the case.

If we include this AI technology into the educational process, it has benefits. ChatGPT can be a useful tool for school-related tasks like English. Students can better grasp the material they wish to learn by using the practice questions and quizzes created by this Large Language Model.

Perplexity wanted to take advantage of Chat GPT's artificial intelligence and the ease with which people search with Bing Search. The primary characteristics of Perplexity are these two alloys. A place to ask anything, when we are browsing (browsing). Perplexity has a superpower that answers your questions and creates the best summary for the information we ask. The way Perplexity works is very simple: you ask a question, Perplexity looks for an answer from the Internet, then it presents it in summary form, and is given a source of quotations from which it got the answer. As fast as you search on Google. Perplexity is an application with a search interface using OpenAI GPT 3.5 and Microsoft Bing to answer every question.

Perplexity's advice: don't enter personal information. Perplexity acknowledges, may produce content that is sensitive and harmful. Again, search results are based on search results and AI capabilities. Perplexity AI has several advantages and disadvantages that its users. The advantages of Perplexity AI are: Provides more accurate and relevant search results than traditional search engines, Provides various features that can help users such as personalized recommendations, automatic query filling, and natural language processing, The results of the conversation show the references used by Perplexity AI to find this information. While the disadvantage of Perplexity AI is the presentation of information does not use flowing and natural language like humans in general.

Access to Perplexity AI is exclusively available via its official website. To use Perplexity AI, follow these easy steps. Navigate to www.perplexity.ai. In the search field, type the question you're looking for the answer to, and then click the blue arrow. Examine Perplexity AI's response and the source. Use the "Ask a follow-up" menu to ask another question. Despite its recent popularity, GPT Chat has a serious flaw. Up until 2021, GPT Chat solely handles information. GPT Chat is unsure if we inquire about information after 2021. Since its inception, GPT Chat has refrained from making judgments regarding people's personalities, political forecasts, private health information, or financial choices.

Chat GPT is smart, but it is limited and needs more training to get smarter. It was such a background in thinking that led scientists and programmers to create Perplexity, a new search engine, a fusion of (and much smarter) GPT Chat and Bing Search. Perplexity AI also includes a feature that allows users to view similar queries after the service has responded, allowing them to dive deeper into their investigations and find answers. After answering the query, the app displays all the sources used to gather the information. The View List button reveals details of each item evaluated by the program, and tapping on it enables you read the referenced article right in the app.

A comparison between ChatGPT and Perplexity.ai, focusing on key aspects relevant to users like students, researchers, and general users of AI tools:

Table 1

Comparison between ChatGPT and Perplexity

ChatGPT (by OpenAI)	Perplexity.ai
Designed as a general-purpose conversational AI. Focuses on generating human-like text responses, creative writing, coding help, tutoring, and more. Available in multiple versions, including GPT-3.5 and GPT-4 (now GPT-4o as of May 2024).	Designed primarily as an AI search engine, it prioritizes providing current, web-linked information and responding to queries with cited references. Integrates real-time search capabilities with sizable language models.
Access to real-time web search only with the "Browse with Bing" or "web" tool (available in GPT-4 for Pro users). Without browsing, it relies on pretrained data, which may be outdated.	Excellent for research, fact-checking, and reading source material directly; constantly online, offering real-time responses with citations.

Can provide citations when specifically prompted, especially with web access, but doesn't automatically cite sources in normal conversation. Focuses more on generating coherent, readable responses.	Transparency and factual correctness are given first priority, and all sources are cited with links to the original websites or articles.
Designed for interactive conversation, learning, coding, and more. Offers tools like image generation (DALL·E), coding environments, and file uploads (for GPT-4 users).	Performs tasks more akin to a sophisticated search engine than a chatbot. Less talkative and more intent on providing succinct, factual findings backed by research.

Conclusion

A chatbot is an artificial intelligence (AI)-based bot that can have complex discussions with its users. The most recent interpretation of this is that the chatbot can respond based on the user's requests. For instance, if you ask a chatbot to write an essay, it will respond appropriately and provide a well-structured, coherent piece of writing. ChatGPT and Perplexity AI are two instances of chatbots that can be utilized in the classroom. When we browse or click on the website, we are directed to the new account registration page, where we log in and fill out the appropriate box column with the questions. When we type our questions concerning argumentative essays into the text field, these chatbots will respond. The answers and responses will be shown immediately. When the investigator poses multiple queries: 1) "Can you assist me with my English essay assignment?" The chatbot responds, "I will assist with your English essay based on your topic." 2) Could you explain the "Argumentative Essay" to me? The definition and goals of an argumentative essay or text are provided by the chatbot in response. Both the Perplexity AI chatbot and ChatGPT offer a number of writing advice ideas for argumentative essays, and Perplexity AI even recommends a number of online writing services. However, the essay outcomes from Perplexity AI and ChatGPT disagree. An introduction, body paragraphs, counterarguments, and conclusion are all elements that ChatGPT composes argumentative essays. An introduction, arguments, and conclusion are written by Perplexity AI.

References

- Alkaissi, H., & McFarlane, S. I. (2023). Artificial Hallucinations in ChatGPT: Implications in Scientific Writing. *Cureus*, 15(2), e35179. <https://doi.org/10.7759/cureus.35179>
- Alqahtani, T., Badreldin, H. A., Alrashed, M., Alshaya, A. I., Alghamdi, S. S., bin Saleh, K., Alowais, S. A., Alshaya, O. A., Rahman, I., Al Yami, M. S., & Albekairy, A. M. (2023). The emergent role of artificial intelligence, natural learning processing, and large language models in higher education and research. *Research in Social and* <https://doi.org/10.1016/j.sapharm.2023.05.016>
- Arifi, J., Ebner, M., & Ebner, M. (2019). Potentials of Chatbots for Spell Check among Youngsters. *International Journal of Learning Analytics and Artificial Intelligence for Education (iJAI)*, 1(1), 77–88. <https://doi.org/10.3991/ijai.v1i1.10999>
- Barrot, J. S. (2023). Using ChatGPT for second language writing: Pitfalls and potentials. *Assessing Writing*, 57, 100745. <https://doi.org/10.1016/j.asw.2023.100745>

- Brian, B., Handoyo, G. A. S., Gerald, C. J., Gulo, Y. R. W., Wijaya, A. C. R., Ong, M. P., Fransiska, Shandira, M. N., Sari, T. S. N., & Ningsih, D. E. (2023). ChatGPT dalam Pendidikan. SIEGA Publisher.
- Fitria, T. N. (2021a). Artificial Intelligence (AI) In Education: Using AI Tools for Teaching and Learning Process. Prosiding Seminar Nasional & Call for Paper STIE AAS, 4(1), 134–147. <https://prosiding.stie aas.ac.id/index.php/prosenas/article/view/106>
- Fitria, T. N. (2021b). The Use Technology Based on Artificial Intelligence in English Teaching and Learning). *ELT Echo : The Journal of English Language Teaching in Foreign Language Context*, 6(2), 213–223. <https://doi.org/10.24235/eltecho.v6i2.9299>
- Fitria, T. N. (2022a). Using Canva as Media for English Language Teaching (ELT) in Developing Creativity for Informatics Students'. *ELT Echo : The Journal of English Language Teaching in Foreign Language Context*, 7(1), Article 1. <https://doi.org/10.24235/eltecho.v7i1.10789>
- Fitria, T. N. (2022b). Utilizing Text-to-Speech Technology: Natural Reader in Teaching Pronunciation. *JETLEE: Journal of English Language Teaching, Linguistics, and Literature*, 2(2), 70–78. <https://doi.org/10.47766/jetlee.v2i2.312>
- Fitria, T. N. (2023). Artificial intelligence (AI) technology in OpenAI ChatGPT application: A review of ChatGPT in writing English essay. *ELT Forum: Journal of English Language Teaching*, 12(1), 44–58. <https://doi.org/10.15294/elt.v12i1.64069>
- Fitria, T. N., Simbolon, N. E., & Afdaleni, A. (2023). Chatbots as Online Chat Conversation in the Education Sector. *International Journal of Computer and Information System* <https://doi.org/10.29040/ijcis.v4i3.116> (IJCIS), 4(3), 93–104.
- Guo, K., Wang, J., & Chu, S. K. W. (2022). Using chatbots to scaffold EFL students' argumentative writing. *Assessing Writing*, 54, 100666. <https://doi.org/10.1016/j.asw.2022.100666>
- Hopkins, A. M., Logan, J. M., Kichenadasse, G., & Sorich, M. J. (2023). Artificial intelligence chatbots will revolutionize how cancer patients access information: ChatGPT represents a paradigm-shift. *JNCI Cancer Spectrum*, 7(2), pkad010. <https://doi.org/10.1093/jncics/pkad010>
- Huang, W., Hew, K. F., & Fryer, L. K. (2022). Chatbots for language learning—Are they really useful? A systematic review of chatbot-supported language learning. *Journal of Computer Assisted Learning*, 38(1), 237–257. <https://doi.org/10.1111/jcal.12610>
- King, M. R. (2023). A Conversation on Artificial Intelligence, Chatbots, and Plagiarism in Higher Education. *Cellular and Molecular Bioengineering*, 16(1), 1–2. <https://doi.org/10.1007/s12195-022-00754-8>
- Lin, P.-C. (2020, July 24). A proposed methodology for investigating chatbot effects in peer review. Simon Fraser University. <https://summit.sfu.ca/item/20533>
- Miles, M. B., Huberman, A. M., & Saldana, J. (2018). *Qualitative Data Analysis: A Methods Sourcebook*. SAGE Publications.
- Molnár, G., & Szűts, Z. (2018). The Role of Chatbots in Formal Education. 2018 IEEE 16th International Symposium on Intelligent Systems and Informatics (SISY), 000197–000202. <https://doi.org/10.1109/SISY.2018.8524609>

- Moons, P., & Bulck, L. (2023). ChatGPT: Can artificial intelligence language models be of value for cardiovascular nurses and allied health professionals. *European Journal of Cardiovascular Nursing*, zvad022. <https://doi.org/10.1093/eurjcn/zvad022>
- Muliyono, M. (2021). Identifikasi Chatbot dalam Meningkatkan Pelayanan Online Menggunakan Metode Natural Language Processing [Undergraduate Paper, Universitas Putra Indonesia YPTK]. <http://repository.upiypk.ac.id/4399/>
- Nagata, R., Hashiguchi, T., & Sadoun, D. (2020). Is the Simplest Chatbot Effective in English Writing Learning Assistance? *Computational Linguistics*, 245–256. https://doi.org/10.1007/978-981-15-6168-9_21
- Nuruzzaman, M., & Hussain, O. K. (2018). A Survey on Chatbot Implementation in Customer Service Industry through Deep Neural Networks. 2018 IEEE 15th International Conference on E-Business Engineering (ICEBE), 54–61. <https://doi.org/10.1109/ICEBE.2018.00019>
- Putra, J. A. (2020, March 16). Penerapan natural language processing dalam aplikasi chatbot sebagai media pencarian informasi dengan menggunakan react: Studi kasus Institut Bisnis dan Informatika Kwik Kian Gie/Jasen Aprian Putra/ 52160253/ Pembimbing: Akhmad Budi [Other]. Institut Bisnis dan Informatika Kwik Kian Gie. <http://eprints.kwikkiangie.ac.id/6/>
- Rice, S., & Gregor, M. N. (2016). *E-Learning and the Academic Library: Essays on Innovative Initiatives*. McFarland.
- Rosyada, D. (2020). *Penelitian Kualitatif Untuk Ilmu Pendidikan*. Prenada Media.
- Semiawan, C. R. (2010). *Metode Penelitian Kualitatif*. Yogyakarta: Grasindo.
- Setiawan, A., & Luthfiyani, U. K. (2023). Penggunaan ChatGPT Untuk Pendidikan di Era Education 4.0: Usulan Inovasi Meningkatkan Keterampilan Menulis. *JURNAL PETISI (Pendidikan Teknologi Informasi)*, 4(1), 49–58. <https://doi.org/10.36232/jurnalpetisi.v4i1.3680>
- Shahriar, S., & Hayawi, K. (2023). Let's have a chat! A Conversation with ChatGPT: Technology, Applications, and Limitations. <https://doi.org/10.48550/ARXIV.2302.13817>
- Tlili, A., Shehata, B., Adarkwah, M. A., Bozkurt, A., Hickey, D. T., Huang, R., & Agyemang, B. (2023). What if the devil is my guardian angel: ChatGPT as a case study of using chatbots in education. *Smart Learning Environments*, 10(1), 15. <https://doi.org/10.1186/s40561-023-00237-x>
- Uludag, K. (2023). The Use of AI-Supported Chatbot in Psychology. <https://doi.org/10.2139/ssrn.4331367>