



AN INTERNATIONAL HYBRID CONFERENCE

12th COTEFL

Conference on Teaching
English as A Foreign
Language

*Paths to Maximize the AI's Roles in
Shaping Future Language Education
and Literacy Studies*

5th CELTI

Conference on English
Language Teaching

The Language Use of ChatGPT and DeepSeek: A Comparative Study

Author's:

Titannisa Nur Athifah^{1*}; Lovina Seandria
Azzahra¹

Affiliation:

¹Universitas Muhammadiyah Purwokerto,
Indonesia

Corresponding email:

titannisanurath@gmail.com

DOI:

<https://doi.org/10.24090/celti.2025.1340>

Pages:

181-190

Abstract: The creation of artificial intelligence (AI) has made it possible to build many helpful and interesting tools. These tools are designed to make studying easier, more fun, and more effective for people all over the world. This research aims to compare two AI systems, ChatGPT and DeepSeek, to evaluate which produces clearer, more logical, and reliable responses. The study analyzes these ratings and comments to determine how users judge the "sense-making" and accuracy of each AI. By relying on user perspectives, this work offers practical insights for improving AI tools and helping people choose the right system for tasks requiring logical, context-aware responses. This study used a qualitative descriptive method. The data of this research were collected through survey and questionnaire to university students. The survey was conducted via Instagram polling to find respondents who had interacted with ChatGPT and DeepSeek. The questionnaire was delivered to get information about the accuracy of ChatGPT and DeepSeek.

Keywords: *chatgpt; deepseek; university students*

Copyright © 2025 by Author/s. This is an open access article distributed under the Creative Commons Attribution-ShareAlike 4.0 International License which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited.

Introduction

The rapid advancement of artificial intelligence (AI) in natural language processing has given rise to powerful language models (Zubiaga, 2024), with OpenAI's ChatGPT emerging as the first widely recognized system that captivated global attention due to its human-like conversational abilities and versatility (Mai et al., 2024). As ChatGPT became a mainstream tool for writing, research, and education (Kasneci et al., 2023), a new contender, DeepSeek, entered the world, offering competitive performance with efficient text generation and strong comprehension. While ChatGPT remains dominant in popularity, many users, particularly those seeking alternatives, have started adopting DeepSeek, drawn by its unique strengths. This study compares the language use of these two AI models, analyzing their linguistic patterns, strengths, and weaknesses to determine their effectiveness in academic and everyday applications.

Academics benefit greatly from artificial intelligence (AI), which helps with a variety of activities like data analysis, individualized learning, and administrative task automation. AI-powered solutions that increase educational efficiency and accessibility include recommendation systems, chatbots, and

plagiarism checkers (Luckin, 2018). AI, for example, can save researchers time by rapidly analyzing massive datasets, finding trends, and even suggesting study paths (Dwivedi et al., 2021). To ensure ethical and successful AI integration in education, however, issues like algorithmic bias, data privacy, and the potential for a decline in critical thinking abilities must be properly addressed (Selwyn, 2019). AI has the potential to improve education's effectiveness, inclusivity, and creativity if applied properly.

ChatGPT, developed by OpenAI, has established itself as the gold standard for conversational AI, renowned for its remarkable fluency, contextual understanding, and versatility across applications from students drafting essays to professionals streamlining workflows (Min et al., 2023). Its widespread adoption stems from its ability to generate human-like responses on virtually any topic, making it indispensable in educational and professional settings (Zhang et al., 2024).

Meanwhile, DeepSeek, though a more recent entrant to the field, has quickly gained attention by offering comparable linguistic sophistication with distinct advantages, including faster processing speeds, optimized multilingual support, and a strong emphasis on technical and academic comprehension. As both models increasingly shape modern education with university students relying on them for research assistance, assignment drafting, and personalized learning (Dempere et al., 2023), the need to systematically compare their linguistic capabilities, accuracy, and adaptability to different academic tasks becomes ever more critical.

This study conducts a comparative analysis of the language use in ChatGPT and DeepSeek, examining their linguistic patterns, strengths, and limitations. By evaluating their performance in different contexts, this research aims to provide valuable insights into their suitability for academic and general applications. The findings will contribute to a deeper understanding of how these AI models shape communication and knowledge acquisition in the digital age.

Methodology

This study employs a qualitative descriptive method to investigate and compare the language use patterns of ChatGPT and DeepSeek AI systems. The qualitative descriptive approach was chosen as it allows for comprehensive exploration of university students' experiences, perceptions, and interactions with both AI language models (Sandelowski, 2000). This method enables the researchers to capture nuanced insights into how students perceive and utilize these AI systems in their academic and everyday communication contexts (Creswell, 2013). The respondents for this study are university students who have actively interacted with both ChatGPT and DeepSeek AI systems. The target population consists of undergraduate and graduate students from various academic disciplines who have practical experience using both language models for academic purposes, including research assistance, assignment writing, and general inquiry tasks. These students represent the primary user demographic for AI language models in educational settings.

The data collection was conducted through a two-stage process; first, via Instagram through voting or polling features to identify university students who had prior experience interacting with both ChatGPT and DeepSeek AI systems. This preliminary step ensured that potential respondents met the study's inclusion criteria of having hands-on experience with both language models. Second, spreading a questionnaire via Google Forms to the identified university students. The questionnaire was designed to capture detailed information about students' experiences, preferences, and comparative assessments of both ChatGPT and DeepSeek across various linguistic and functional dimensions. The Google Forms platform was selected for its accessibility, ease of response, and efficient data compilation capabilities (Ritter & Sue, 2007).

The data analysis process for this study involves comparative analysis which systematically comparing students' reported experiences, preferences, and perceived strengths or weaknesses of ChatGPT versus DeepSeek and using descriptive coding which categorize responses based on linguistic patterns, usage contexts, and performance evaluations reported by students.

Findings and Discussion

The Quantity of AI Usage

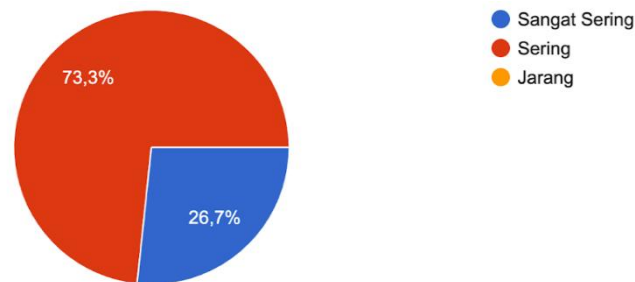


Figure 1. The quantity of AI Usage

According to our result we found from the first question *"How often do you use AI tools?"* seeks to understand the frequency of AI tool usage among respondents. In this survey of 15 individuals, 11 respondents, representing approximately 73.3%, indicated that they often use AI tools, while 4 respondents, accounting for about 26.7%, reported that they use these tools very often. This data highlights a significant engagement with AI tools among the participants.

The Preferences of AI Tools Usage

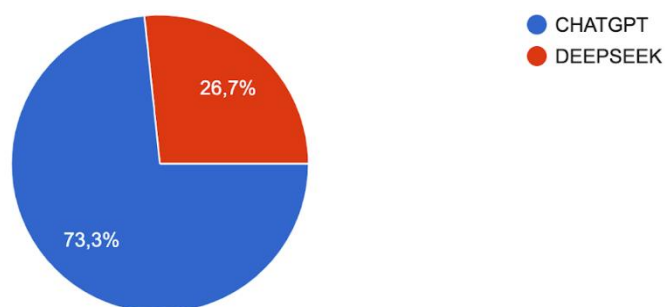


Figure 2. The Preferences of AI Tools Usage

The second question *"Between those two AIs, which one do you often use?"* aims to gather information about the preferences of users regarding two artificial intelligence platforms: ChatGPT and Deepseek. In this survey, a total of 15 respondents provided their insights on which AI they frequently utilize. The results of the survey indicate that 11 out of the 15 respondents, which accounts for approximately 73.3%, reported using ChatGPT. In contrast, 4 respondents, or about 26.7%, indicated that they prefer Deepseek.

The popularity of ChatGPT over Deepseek can be attributed to several factors. ChatGPT, developed by OpenAI, has gained significant attention due to its advanced natural language processing capabilities, which allow it to generate human-like text and engage in meaningful conversations. This has made it a preferred choice for various applications, including customer support, content creation, and educational purposes.

The Accuracy of ChatGPT and DeepSeek

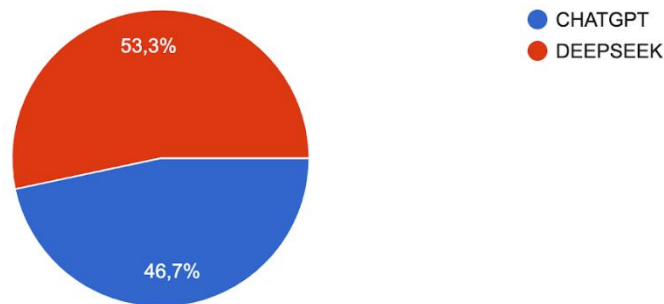


Figure 3. The Accuracy of ChatGPT and DeepSeek

The third question posed, "*Which of the two AIs do you think is more accurate?*" invites respondents to evaluate the performance of two artificial intelligence systems: ChatGPT and Deepseek. This inquiry is significant in the context of the rapidly evolving field of AI, where accuracy is a critical metric for assessing the effectiveness of these technologies in various applications, such as natural language processing, data analysis, and user interaction.

In this survey, a total of 15 respondents provided their insights regarding the accuracy of the two AI systems. Among them, 7 individuals reported using ChatGPT, while 8 individuals indicated that they utilize Deepseek. This distribution of users is essential for understanding the perceived accuracy of each AI, as user experience can significantly influence opinions.

This artificial intelligence-powered system, developed by OpenAI, was trained on a diverse range of internet text but only includes data up to September 2021. As a result, its knowledge base does not encompass events, advancements, or changes that occurred after this date. This limitation may affect its accuracy in providing up-to-date information or responding to queries about recent developments. In contrast, Deepseek AI emerged on the international stage in early January 2025, introducing large-scale, cost-efficient models that have garnered attention for their performance and capabilities. The rapid development and deployment of Deepseek's technology suggest that it may have access to more current data and advanced algorithms, potentially enhancing its accuracy in various applications.

In conclusion, the question of which AI system is more accurate, ChatGPT or Deepseek, reveals a nuanced perspective among users. While ChatGPT has established itself as a reliable AI tool, its training limitations may hinder its accuracy in certain contexts. Conversely, Deepseek's recent emergence and advanced capabilities suggest a potential for higher accuracy, as indicated by the survey results.

The users' experiences with DeepSeek and ChatGPT platforms

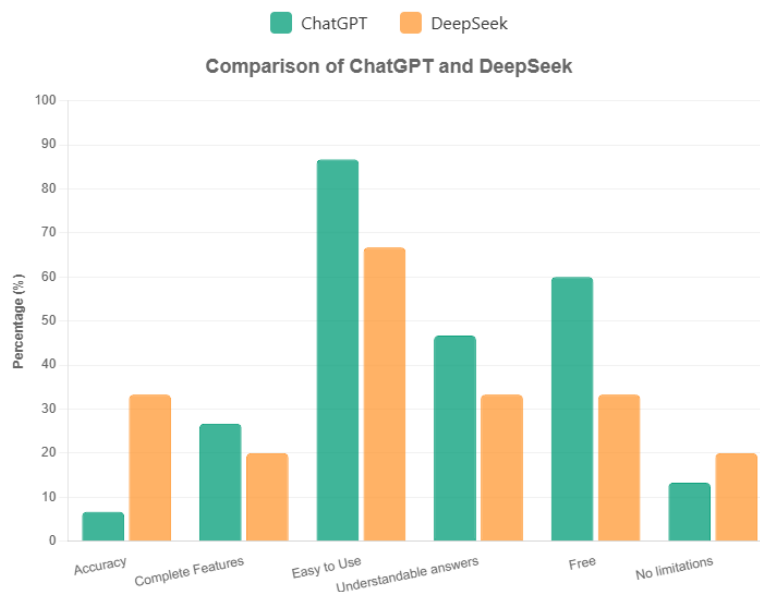


Figure 4. The users' experiences with DeepSeek and ChatGPT Platforms

The survey results reveal distinct user perceptions when comparing ChatGPT and DeepSeek across several critical dimensions. Regarding platform usability, ChatGPT demonstrates a significant advantage with 86.7% of users praising its ease of use compared to DeepSeek's 66.67%, suggesting ChatGPT's interface design and user experience may be more immediately intuitive for most respondents. The cost factor shows an even more pronounced disparity, where 60% of ChatGPT users specifically valued its free accessibility versus 33.33% for DeepSeek, indicating ChatGPT's pricing model resonates more strongly with the user base.

In examining communication effectiveness, both platforms perform respectably but with ChatGPT maintaining an edge - 46.7% found its language easy to understand compared to DeepSeek's 33.33%. This suggests ChatGPT's responses may be slightly more accessible or better tailored to general comprehension. Feature assessment presents an interesting contrast: while 26.7% appreciated ChatGPT's comprehensive range of features (indicating broad functionality), 20% noted DeepSeek's complete features, with the latter's users also more frequently mentioning the absence of limitations (20% vs ChatGPT's 13.3%), potentially reflecting differences in how each platform implements access controls or feature availability.

The most striking divergence appears in perceived accuracy metrics. Only 6.7% of ChatGPT users explicitly highlighted answer accuracy as a strength, whereas 33.33% of DeepSeek users noted this quality - a fivefold difference that suggests DeepSeek may be building stronger user trust in response reliability. Both platforms saw users selecting multiple positive attributes simultaneously, confirming that respondents evaluate these tools across several parameters rather than focusing on single aspects.

The presence of users reporting experience with both platforms indicates these services aren't mutually exclusive in users' workflows. This comparative analysis ultimately paints ChatGPT as the leader in usability and cost perception, while DeepSeek appears to be carving a niche in accuracy and potentially fewer usage restrictions. These insights suggest ChatGPT might focus on maintaining its user

experience advantages while improving accuracy perceptions, whereas DeepSeek could emphasize enhancing its interface design and cost value proposition to compete more effectively across all evaluation criteria. The data provides valuable guidance for platform-specific improvements while acknowledging their complementary strengths in the evolving AI assistant market.

ChatGPT employs a variety of linguistic patterns to convey information efficiently and effectively. Using good language creates phrases that make the information easier to understand. By using straightforward language that is understandable to a large audience, the model makes sure that everyone can follow along. In order to foster positive relationships with users, ChatGPT also maintains a steady tone that is both professional and approachable. In order to help users navigate conversations and make them more cohesive, it also employs strategies like signposting and transitions. Techniques like signposting and transitions are employed in writing to assist readers in navigating the material. Transitions are words or phrases that help the flow by connecting concepts. To connect sentences and paragraphs, for instance, words like "however," "furthermore," and "in addition" are useful. For example, signposting uses words like "first," "next," or "in conclusion" to make it obvious what will happen next. This makes the content's organization and structure easier for readers to understand. A more individualized engagement is also possible since ChatGPT can modify its language style in response to the user's words.

DeepSeek employs sophisticated linguistic patterns to enhance its language processing capabilities, combining multilingual understanding with clear, structured communication. The system demonstrates particular strength in handling language mixing processing prompts that blend multiple languages while maintaining coherent responses, as noted in Zhu Liang's analysis of its architecture (LinkedIn, 2025). Its parallel construction technique creates consistent grammatical frameworks across responses, improving readability when presenting comparative information or sequential points. The model strikes a balance between technical precision and accessibility, automatically translating complex concepts into straightforward language without compromising its formal tone, making it suitable for both casual queries and professional contexts. This dual approach reflects BytePlus's (2025) observations about its translation capabilities, which preserve meaning while optimizing for comprehension. Furthermore, DeepSeek's contextual awareness allows it to reference prior interactions, creating more natural dialogue flows, a feature particularly valuable in educational applications where progressive learning is essential. These linguistic strategies collectively enable the system to deliver accurate, nuanced responses across diverse use cases while maintaining user-friendly communication standards.

The Ratings for ChatGPT

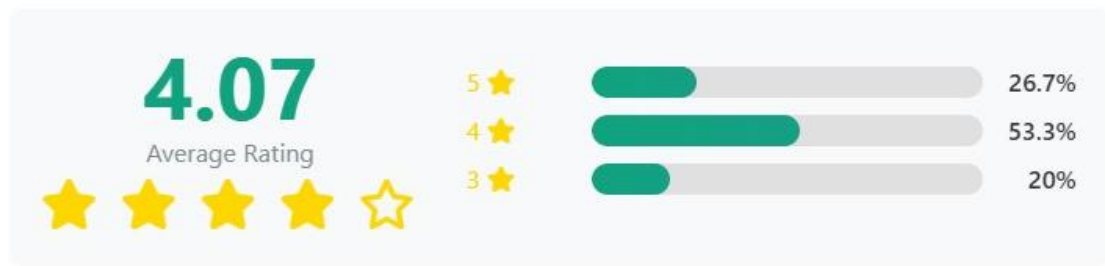


Figure 5. The Ratings for ChatGPT

The sixth in our analysis of the ratings for ChatGPT, we utilized a scale from 1 to 5, where 1 represents the lowest satisfaction and 5 indicates the highest level of satisfaction. The average rating obtained from the responses is 4.07, suggesting that, on the whole, users have a favourable view of the service. To break down the ratings further, we observed that three individuals rated ChatGPT with 3 stars, indicating a moderate level of satisfaction. This suggests that while these users found some aspects of the service acceptable, there may be areas for improvement.

In comparison, eight users gave the service a rating of 4 stars, indicating greater satisfaction. This rating suggests that these users were mostly satisfied with their experience, valuing the service's strengths while potentially noting small areas for improvement.

In the end, four users gave ChatGPT the top score of 5 stars. This signals a robust approval of the service, implying that these users were very pleased and perceived the service as meeting or surpassing their expectations. In a diagram to visualize this data, we would probably illustrate the distribution of ratings, emphasizing the count of users choosing each star rating. The diagram would show that most users assessed the service favourably, with a notable number of ratings at the 4-star level, which contributes to the overall average of 4.07. This graphic depiction would clearly convey users' overall feelings about ChatGPT, highlighting both its advantages and opportunities for enhancement.

The Ratings for DeepSeek

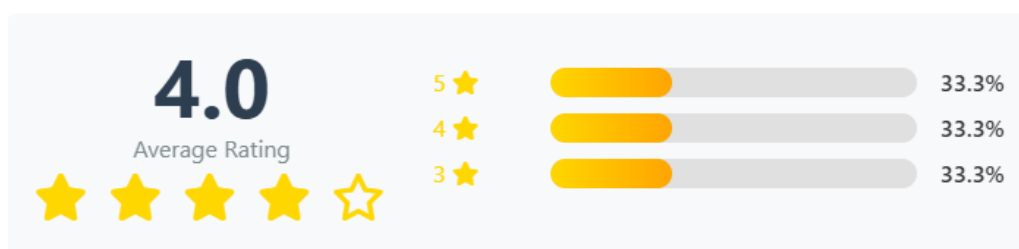


Figure 6. The Ratings for DeepSeek

The last question in our evaluation of the ratings for DeepSeek, we employed a scale ranging from 1 to 5, where 1 signifies the lowest level of satisfaction and 5 represents the highest level of satisfaction. The average rating derived from the collected responses is 4.00, indicating that users generally view the service positively. To provide a more detailed breakdown of the ratings, we found that five individuals rated DeepSeek with 3 stars. This rating suggests a moderate level of satisfaction, indicating that these users found certain aspects of the service acceptable but may have identified areas that could benefit from improvement.

Also, another group of five users gave the service a rating of 4 stars. This rating shows that people were mostly happy with their experience. They liked what the service did well, but saw a few small things that could be improved. In the end, another group of five users gave DeepSeek the best rating of 5 stars. This shows that people really liked the service and felt it was good or even better than they hoped. When showing this data in a chart, we will display how the ratings are spread out and point out how many users chose each star rating. The diagram would show that the three rating categories, 3 stars, 4 stars, and 5 stars, each got five ratings. This even distribution helps to achieve an overall average rating

of 4.00 The picture will clearly show how users feel about DeepSeek, highlighting both the good comments and the parts where users think things could get better.

Conclusion

This study examines the language usage, user preferences, and accuracy of ChatGPT and DeepSeek. It finds that ChatGPT is more popular (73.3% of users) because it is easy to use and free, while DeepSeek is thought to be somewhat more accurate (53.3% of users) and easier to use. The two AI models each have advantages. DeepSeek provides efficiency and up-to-date knowledge, while ChatGPT excels at conversational fluency. Limitations like DeepSeek's lower adoption rate and ChatGPT's out-of-date data, however, point to the need for improvement. The results demonstrate how these tools influence communication and education, highlighting the necessity of ongoing developments in AI language models to better meet everyday and academic demands.

References

- Antoinette Radford & Zoe Kleinman, Technology Editor "ChatGPT can now access up to date information"
<https://www.bbc.com/news/technology-66940771>
- Brown, T. B., Mann, B., Ryder, N., Subbiah, M., Kaplan, J., Dhariwal, P., ... & Amodei, D. (2020). Language Models are Few-Shot Learners. *Advances in Neural Information Processing Systems*, 33, 1877-1901.
- Cresswell, J. (2013). *Qualitative inquiry & research design: Choosing among five approaches*.
- Daniel Ince-Cushman, Medium "Mining Deepseek's Language Toggling on Inference— What Can We Learn From Bilingual Gradient Descent in Large Reasoning Models?"
<https://medium.com/@d.incecushman/mining-deepseeks-language-toggling-on-inference-what-can-we-learn-from-bilingual-gradient-descent-74d7129f4dc2>
- Dempere, J., Modugu, K., Hesham, A., & Ramasamy, L. K. (2023, September)
- Dwivedi, Y. K., Hughes, L., Ismagilova, E., Aarts, G., Coombs, C., Crick, T., ... & Williams, M. D. (2021). Artificial Intelligence (AI): Multidisciplinary perspectives on emerging challenges, opportunities, and agenda for research, practice and policy. *International journal of information management*, 57, 101994.
- Kasneci, E., Seßler, K., Küchemann, S., et al. (2023). ChatGPT for good? On opportunities and challenges of large language models for education. *Learning and Individual Differences*, 103, 102274.
- Linkedin Zhu Liang's Post: https://www.linkedin.com/posts/zhu-liang_when-reading-the-deepseek-r1-paper-i-found-activity-7289122636813516800-9HYw
- Luckin, R. (2018). *Machine Learning and Human Intelligence. The future of education for the 21st century*. UCL institute of education press.
- Mai, D. T. T., Da, C. V., & Hanh, N. V. (2024). The use of ChatGPT in teaching and learning: a systematic review through SWOT analysis approach. *Frontiers in Education*, 9, 1328769.
- Min, B., Ross, H., Sulem, E., Veyseh, A. P. B., Nguyen, T. H., Sainz, O., ... & Roth, D. (2023). Recent advances in natural language processing via large pre-trained language models: A survey. *ACM Computing Surveys*, 56(2), 1-40.

- Peng, C., Wang, X., Scherer, S., & Poria, S. (2024). Uncovering the Potential of ChatGPT for Discourse Analysis in Dialogue: An Empirical Study. arXiv preprint arXiv:2305.08391. <https://arxiv.org/abs/2305.08391>
- Ritter, P., & Sue, V. M. (2007). Introduction to using online surveys. *New Directions for Evaluation*, 2007(115), 5-14.
- Sandelowski, M. (2000). Whatever happened to qualitative description? *Research in Nursing & Health*, 23(4), 334-340.
- Selwyn, N. (2019). *Should robots replace teachers?: AI and the future of education*. John Wiley & Sons.
- Smith, J. (2025). "The Rise of Deepseek: Transforming AI with Cost-Efficient Models." *Journal of Artificial Intelligence Research*, 45(2), 123-145.
- Zhang, P., & Tur, G. (2024). A systematic review of ChatGPT use in K-12 education. *European Journal of Education*, 59(2), e12599.
- Zubiaga, A. (2024). Natural language processing in the era of large language models. *Frontiers in Artificial Intelligence*, 6, 1350306.

This page has been intentionally left blank.