Neurodiversity and Openness in Responses to AI in Writing

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Abstract:
Neurodivergent individuals encompass a broad spectrum of cognitive profiles, including autism, ADHD, dyslexia, depression, anxiety and other neurological differences and learning disabilities. Over the past decade, artificial intelligence (AI) technologies have rapidly evolved, permeating various aspects of society, from healthcare to education and employment. From personalized learning platforms and assistive technologies, AI-driven solutions have the potential to enhance accessibility, facilitate neurodiversity acceptance, and foster inclusive environments. However, those with certain neurodivergent diagnoses often lack openness to new opportunities (Gong et al., 2023).

Findings:
57% of participants identified themselves as a person with anxiety. As this was the majority of our participants, we further analyzed their survey responses. Of the participants who identified as anxious, 22 out of the 61 participants reported never using AI. These 22 respondents consisted of 63% of those who have never used AI. For comparison, 81% of our total participants have used AI for writing. We found that anxious individuals tend to be more open to AI. When asked to leave a comment regarding AI, neurodiversity or writing, one participant wrote “I am neurodivergent in that I have experienced significant, complex trauma, but I do believe that helps with my writing. AI is not appealing to me because it feels like an extra step towards accomplishing a task. Perhaps AI would help, but I have a system and don’t want to mess with it by adding more work for myself.” This participant also identified as a person with anxiety. The section about “adding an extra step towards accomplishing a task” seems to relate to the lack of openness that is found in anxious individuals.

Conclusion:
There are many reasons as to why someone may not be open to using AI. However, our study found that those with anxiety are much less likely to use AI. Some reasoning for this may be that individuals with social anxiety tend to be hyper aware of perceived judgment or scrutiny from others (O’Toole, 2013). This heightened sensitivity can extend to interactions with AI technologies, as students may project feelings of inadequacy or fear of failure onto their interactions with AI systems. The fear of being judged, even by a non-human entity, can deter students from fully engaging with AI tools and seeking help or feedback when needed. AI assistance has the potential to enhance accessibility and foster inclusive environments and could be very beneficial for those with neurodiverse diagnoses, such as anxiety. Finding out why individuals with anxiety are less likely to use AI and coming up with a solution to foster this assistance could be an amazing opportunity to help neurodiverse students in both the writing classroom and other classes.

Further Research:
In order to get a better understanding of if the participants who identified as having anxiety have a fear or lack of trust in AI, further analysis of the anxious participants would be needed. Further questions about openness specifically in regards to technology and AI would also be needed. The questions in which were asked in this preliminary survey did not delve specifically into anxiety as a whole, as it was mainly about all types of neurodiversity and writing patterns.

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