

The Impact of Generative AI on Academic Writing Among ESL Undergraduates in Sri Lankan State Universities

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1. ABSTRACT

University assignments look completely different today because of generative AI like ChatGPT. This is a massive issue for undergraduates in Sri Lanka who are learning English as a Second Language. Most of these students did their entire school education up to the Advanced Level exams in the Sinhala or Tamil mediums. Then they start university, and everything is suddenly in English. Writing academic papers becomes a massive struggle. Undergraduates have to learn hard subjects while fighting basic English grammar at the exact same time. Tools like ChatGPT quickly become their main way to survive the coursework. But the line between getting a little help and actually cheating is very blurry.

This research looks at what 60 undergraduates from five state universities actually do with these AI programs behind closed doors. The study used a Google Form survey to collect data quickly and anonymously. The survey showed that students rarely ask the software to write whole essays. Instead they use it mainly to fix grammar mistakes or get ideas to start their assignments.

There is a serious downside to this new habit. About 45% of the students felt their deep critical thinking was getting worse because they rely on the machine to do the hard work. Also, reading the perfect English made by the computer ruined the writing confidence of exactly half the students. They see the perfect AI text and feel like their own English will never be good enough. This is especially scary for them when they think about sitting in a strict exam hall with no phones. Universities cannot just ban this technology. It is already everywhere. Instead, they have to teach students how to use it safely in their English classes. This way, these young adults can fix their language barriers while keeping their independent thinking.

Keywords: Generative AI, ESL Academic Writing, Critical Thinking, Student Confidence, Sri Lankan Universities.

2. INTRODUCTION

Walk into any state university library in Sri Lanka during assignment season. Look at the laptop screens around you. You will see the exact same thing on almost every single desk. Half the screen has a lecture PDF open, and the other half has ChatGPT running. Students are not doing this because they are lazy. They do it because of how our local school system works. Almost everyone in the state university system does their Ordinary Level and Advanced Level exams in Sinhala or Tamil. They spend 13 years learning in their mother tongue. Getting dropped straight into an English-medium degree program is a massive shock. Suddenly, writing a university-level paper is a nightmare. Undergraduates have to understand difficult academic theories while also trying not to make embarrassing grammar mistakes.

Because of this intense pressure, AI becomes a lifesaver. It fixes bad sentences in an instant. It helps students translate their ideas from Sinhala or Tamil into proper academic English. But lecturers are starting to worry, and they have a valid point. If a machine constantly rewrites a student's paragraphs, the actual learning stops. Writing is supposed to be hard work. That brain-strain is exactly how we learn things deeply. If you let software build your essay structure, you slowly lose your critical thinking skills over time.

There is a psychological side to this, too. A student writes a messy first draft, pastes it into an AI prompt, and gets a flawless academic paragraph back. Seeing that huge difference really hurts their confidence. It makes them feel like their own English will

never be good enough for the university level. This self-doubt becomes a huge problem when final exams roll around. In Sri Lankan state universities, final exams are very strict. Phones and laptops are banned in the exam hall.

We already know undergraduates at places like Colombo University, Peradeniya, and Uva Wellassa rely heavily on these tools. But nobody has actually measured what they do with them daily. To fill this gap, this study asks two things:

1. How do Sri Lankan ESL undergraduates really use AI tools for their daily assignments?
2. What happens to their critical thinking and natural writing confidence when they rely on it?

3. LITERATURE REVIEW

3.1. AI as a Digital Tutor

Before AI, ESL students in Sri Lanka had a hard time. They had to rely on heavy grammar books, or they had to beg seniors to proofread their assignments. Now, second-language learners use generative software like a free, private tutor available 24/7. Mahapatra (2024) noticed that conversational models like ChatGPT do an amazing job helping ESL students fix messy sentences fast. Normal spell-checkers on Microsoft Word only catch basic typos. AI goes way deeper than that. Abd Hadi et al. (2024) point out that modern AI fixes the confusing, directly-translated phrases that usually stress students out. Still, language teachers agree on one strict rule. The software should only guide the student. It should never do the actual writing for them.

3.2. Losing Critical Thinking

AI makes writing much easier, but it comes with a hidden cost. Writing an essay is supposed to be difficult. That mental struggle is how you learn the subject. If a student uses software to summarize a ten-page research paper, they skip the brain-work completely. Georgiou (2025) looked into this problem. He found a real drop in thinking skills among heavy AI users, calling them "lazy" thinkers. To fix this, Hsu (2025) says students should only use AI to brainstorm at the start or check spelling at the very end.

3.3. Writing Anxiety

Writing in English is incredibly stressful for ESL students. Having a tool that fixes grammar immediately lowers that stress (Yılmaz & Üstünel, 2025). However, there is a strange downside. Hsu (2025) found that when students constantly read perfect AI English, they compare it to their own rough drafts. This makes them feel deeply insecure. They start feeling like their natural voice is just never good enough for university.

3. METHODOLOGY

4.1. Design and Participants

This study used a quantitative survey method. This was the easiest and fastest way to get clear data from a lot of students spread across the country. The final group had 60 undergraduates. To get a picture of the state system responses came from Uva Wellassa University, University of Colombo University of Peradeniya Eastern University and South Eastern University. These universities are spread across parts of the country. They show a range of experiences. The diversity helps make the findings stronger.

Most of the participants were first-year students making up 71.7% of the group. This makes sense because first-year students face the shock when transitioning to English-medium studies. They are still adjusting to the language. They are still learning how to write and speak in English. The rest were years at 6.7%, third-years at 13.3% fourth-years at 6.7% and a few others at 1.7%. The numbers show that the focus is, on students who are just starting. The study wanted to know how they feel about AI and English learning.

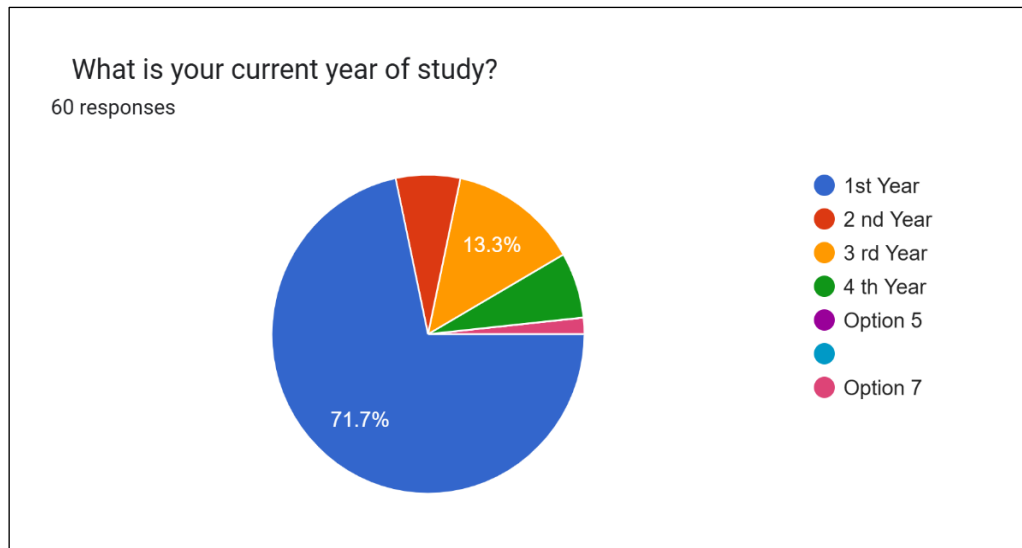


Figure 1 Distribution of Participants by Current Year of Study (N = 60)

4.2. Data Collection Process

The survey was built as a Google Form. Since university students in Sri Lanka use WhatsApp and Telegram for all their academic communication, the link was shared directly in batch groups and club groups. The questions used a 1 to 5 scale. The scale went from 1 which meant "Strongly Disagree," to 5 which meant "Strongly Agree." This scale was chosen because it forces students to take a stance on their habits. It also avoids the need for written answers. Students had to decide where they stood. They could not stay in the middle. Avoid the question.

4.3. Analysis and Ethics

After collecting the data, the answers were analyzed using basic descriptive math. I mainly looked at the Means and Standard Deviations. The survey was kept completely anonymous. No emails, registration numbers, or names were collected. This ethical step was incredibly important. Students are very scared of strict lecturers. They would completely lie about using ChatGPT if the survey asked for their names.

5. FINDINGS

5.1. Platform Choices

Students do not just use one tool. They use a few different ones depending on the assignment. ChatGPT is by far the favorite (80.0%). Google Gemini is second (58.3%), followed by Claude (23.3%), and Grammarly's AI features (10.0%).

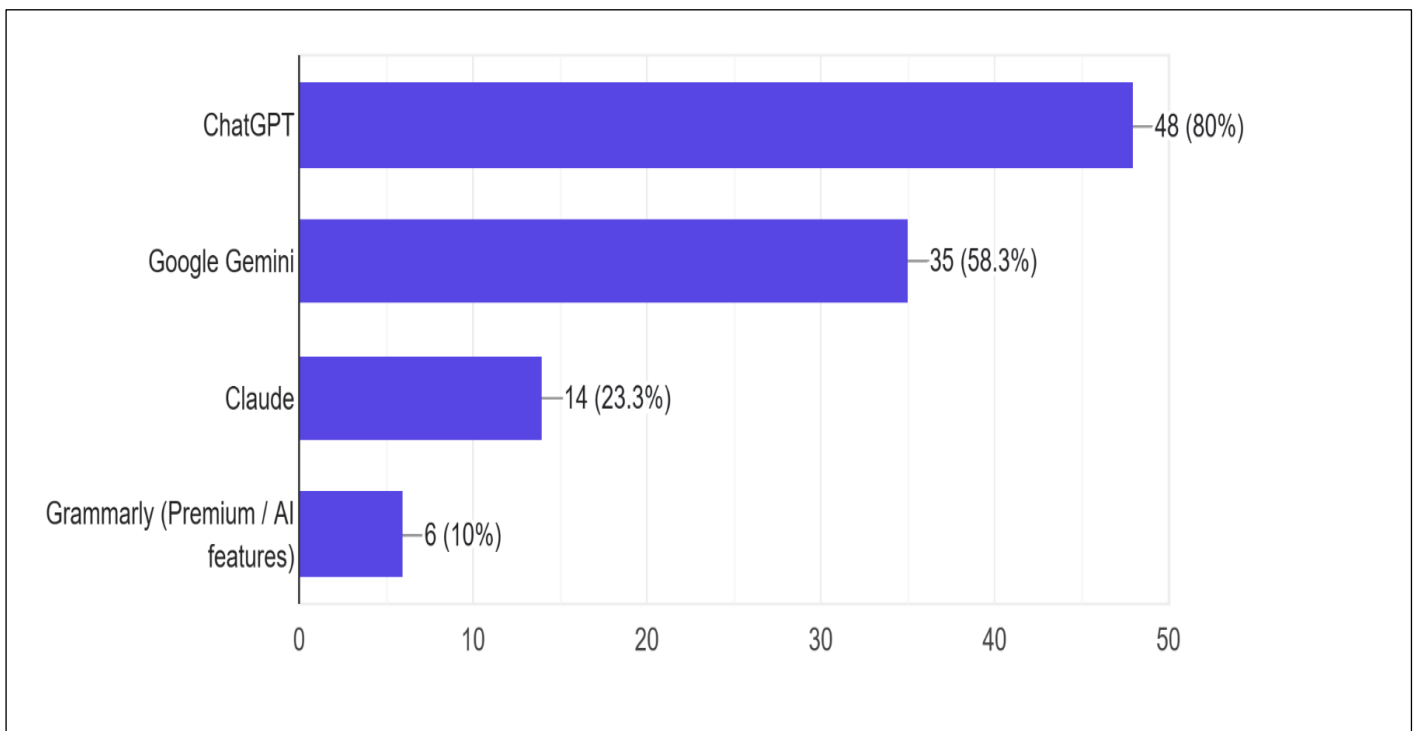


Figure 2 Distribution of Participants by Current Year of Study (N = 60)

5.2. How They Actually Use It

The numbers show that students mostly use AI for background help, not for blatant cheating.

- **Full Essays:** I asked if students use AI to write essays from scratch. They strongly disagreed. The average score was 2.25, with a deviation of 1.13. Over 58% specifically said they do not do this all.

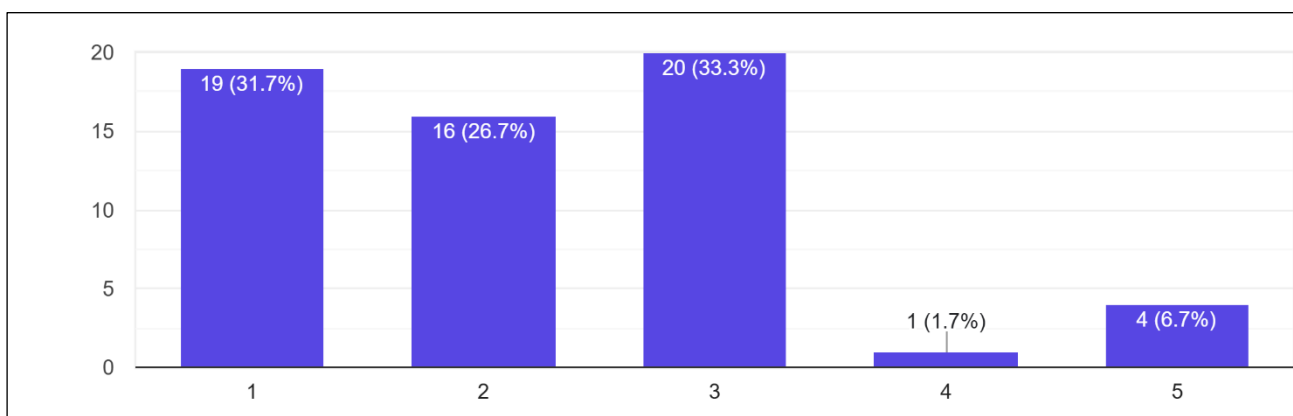


Figure 3 Student Reliance on Generative AI for Drafting Full Texts (N = 60)

- **Structuring:** Opinions were mixed when I asked if they use AI to plan out essays or structure arguments (M = 2.67, SD = 1.10). A lot of students stayed neutral here.

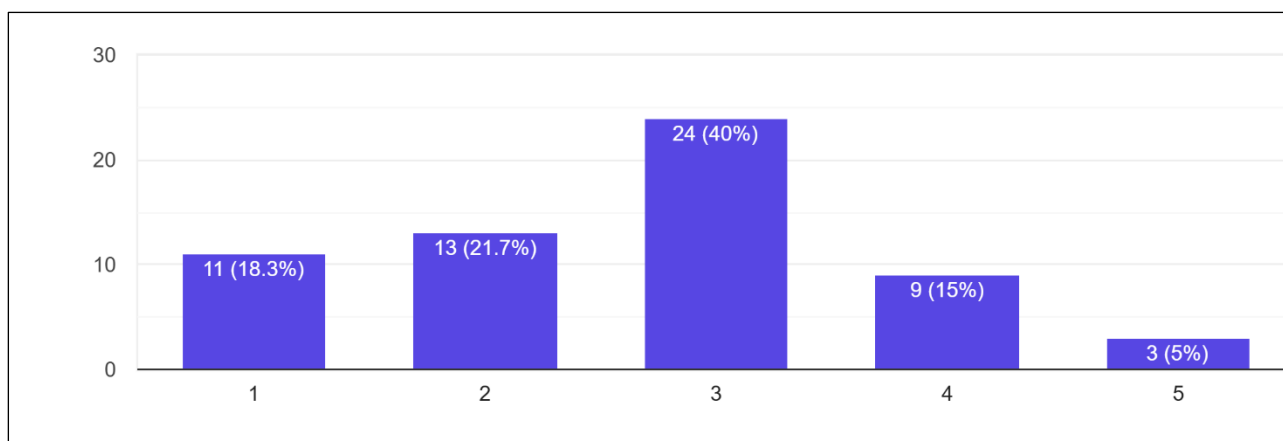


Figure 4 Student Reliance on AI for Structuring Main Arguments (N = 60)

• **Reading Papers:** I asked if AI makes them read less original research. The responses leaned slightly toward disagreement. The average score was 2.63 with a deviation of 1.21. The data shows that students mostly use AI for background help than for outright cheating.

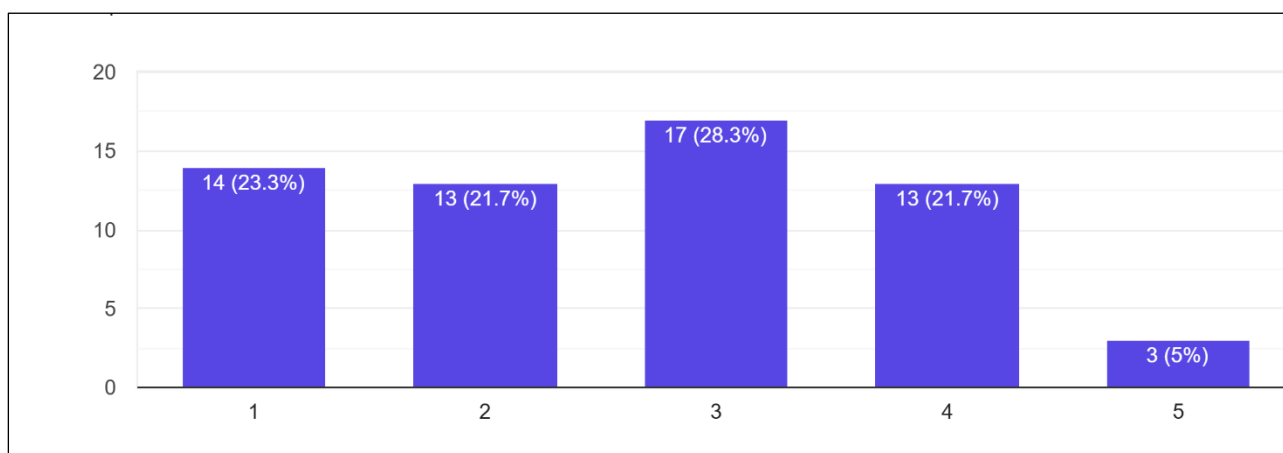


Figure 5 Impact of AI Usage on Time Spent Reading and Analyzing Original Research (N = 60)

5.3. Psychological Impact

• **Critical Thinking Drop:** This was a concern. 45.0% Of students admitted that their deep critical thinking skills have declined because of AI. The average score was 3.32 with a deviation of 1.11.

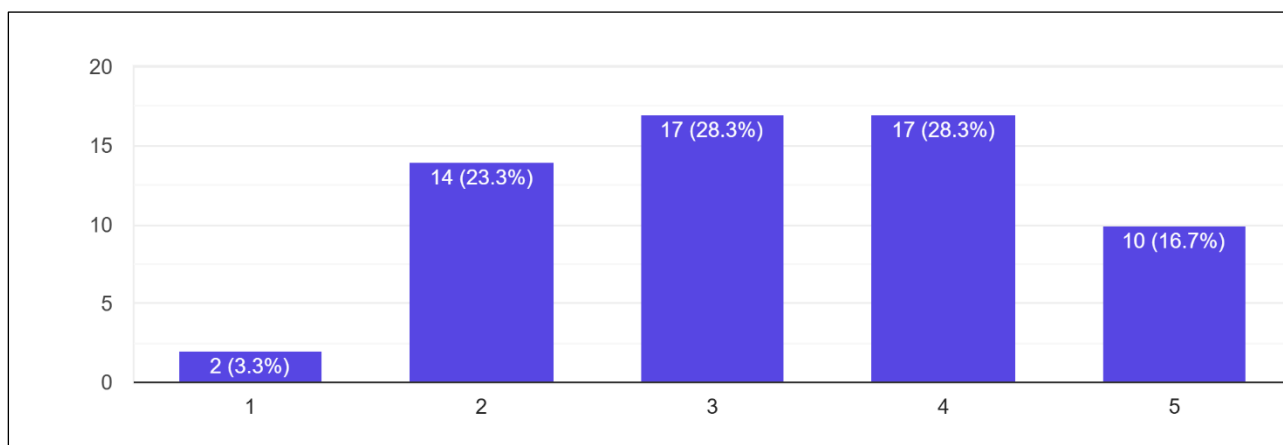


Figure 6 Student Perceptions of AI's Impact on Deep Critical Thinking (N = 60)

- **Exam Anxiety:** Surprisingly students do not feel overly anxious about writing without AI in closed-book exam settings. The average score was 2.43 with a deviation of 1.21.

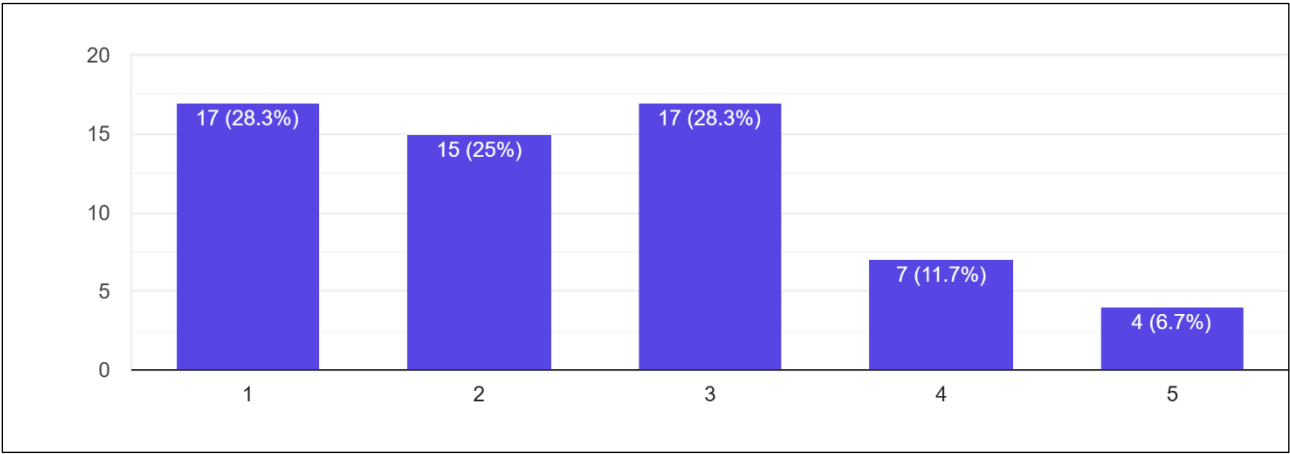


Figure 7Student Anxiety Regarding Academic Writing Without AI Assistance in Strict Settings (N = 60)

- **Grades Without Tech:** Students were divided on whether they could achieve the grades without any AI help. The average response was 2.73 with a deviation of 1.13.

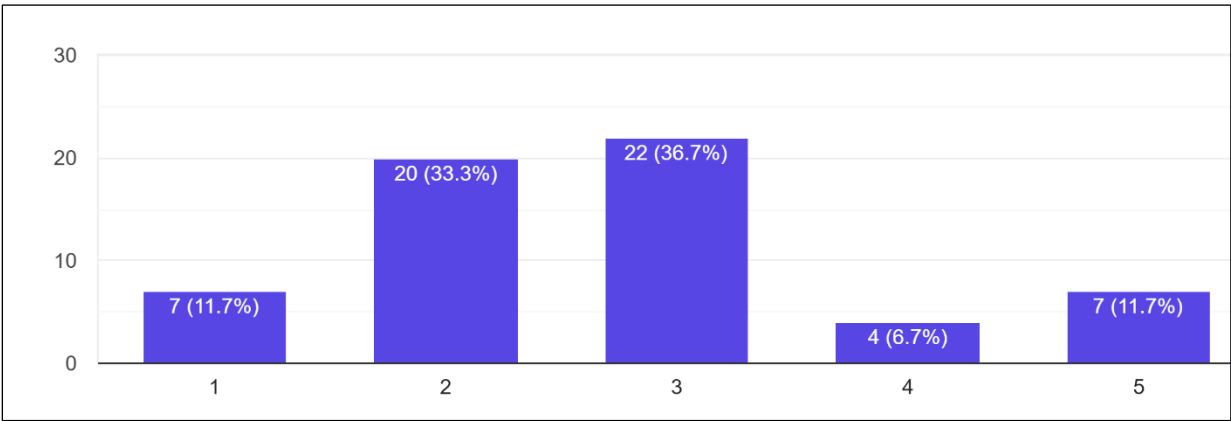


Figure 8Student Confidence in Maintaining Work Quality Without AI (N = 60)

- **The Confidence Split:** The most interesting finding was a perfect 50/50 split. Half the students said reading perfect AI text makes them feel insecure about their own writing. The exact other half did not care at all.

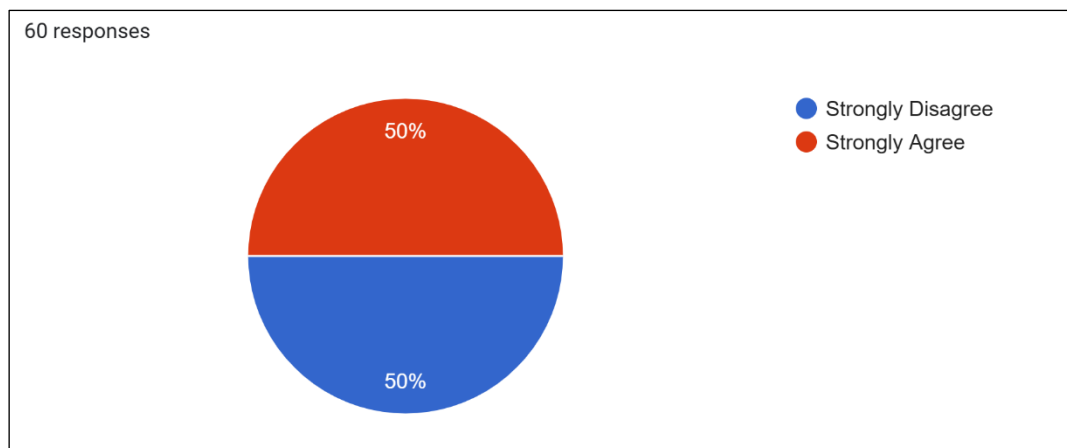


Figure 9 Impact of Reading High-Quality AI Text on Students' Natural Writing Confidence (N = 60)

6. DISCUSSION

Looking at these numbers gives us a very real picture of Sri Lankan university life right now. The best news is the low score for full essay generation. Students are not just cheating their way to a degree. They use ChatGPT mainly like an advanced grammar checker. This matches exactly what Mahapatra (2024) found in his research. But the drop in thinking skills is a massive problem. Since 45% admitted their critical thinking is worse, cognitive offloading is definitely happening. When a computer does the hard work of organizing an argument, the student does not remember the material. This proves Georgiou's (2025) warning about lazy thinking is actually happening in our local universities.

The 50/50 split in confidence shows the edged sword of AI. The AI fixes language mistakes instantly. It makes a lot of students feel inadequate. Some students feel more confident after using it. Others feel less confident. It is a tool that helps and harms at the time.

7. CONCLUSION

This study wanted to see how Sri Lankan ESL students actually use AI behind closed doors. The data shows they use it mostly responsibly to fix grammar, but they are accidentally losing their deep thinking skills along the way.

7.1. Limitations

The sample size of 60 is a bit small for the entire country. Also, since it was mostly first-year students, it reflects freshers more than final-year students who are doing big research projects. We also did not compare different degree programs. A computer science student might use these tools in a different way than someone who is studying history or languages. Eventually the survey depends completely on students being honest, about their habits, which's always difficult because some may not admit how much they really copy. Also artificial intelligence changes so fast that this information only shows a moment of what is happening at this exact time.

7.2. Recommendations

Banning AI on campus is completely impossible. Students will just use it on their phones on mobile data. Instead universities should add AI training to their classes. Lecturers must teach students how to use AI for brainstorming. Must not let AI write the final paper. This approach lets students correct their grammar while preserving their voice. Teachers also need to rethink their homework. When an essay topic is too general ChatGPT can answer it easily. To fix this, lecturers could ask for more personal reflections or local Sri Lankan case studies that AI does not know much about. Doing more spoken presentations would also help prove that students actually understand the work they hand in.

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