

Investigating Students' Views About the Use of AI Tools in Academic Writing

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Abstract

This article reports on a survey carried out in November, 2023, which investigated students' awareness of AI translation tools and generative AI and their opinions about the ethics of using AI. According to Warschauer et al., (2023), universities have a responsibility to teach students how to use AI tools for writing because such tools are likely to be necessary in the workplace of the future. However, teachers tend to emphasise the importance of cultivating basic literacy and knowledge, which are essential before students start using AI. The default route has been to insist on handwritten work and to ban all tools other than the electronic dictionary. In reality it is impossible to prevent students using translation software. Moreover, once students have mastered the basic skills and are able to write unaided, it seems reasonable to set assignments involving the use of software as a learning tool, as has already been done on some translation courses. This might be a preliminary to creating guidelines for the use and non-use of AI in academic writing classes and assignments at our university.

The rapid advances in digital translation and generative AI since the emergence of large-language AI models, have resulted in the widespread availability of tools which can simulate human language proficiency to a high degree and indeed outperform humans in terms of speed. The possibilities and challenges for teachers of ESL writing were discussed in the previous edition of *Comparative Culture* by Cathrine-Mette Mork. Mork (2022), experimented with using Chat GPT-3 to formulate the answer to the question "What changes should university educators make regarding writing assessment in the new landscape of advanced AI writing software?" She found that the program was able to produce a logical and reasonable answer, lacking only in the areas of referencing the latest research. Others have found the output of AI does not do well on fact-checking and referencing, but there is still a great deal of scope for both educational use and misuse. This applies to both the use of apps for translation and text generation. In MIU as of April 2024, there has been no official discussion or briefing for students about the ethical boundaries that should be observed,

although the English program teaches about plagiarism and incorporates warnings not to use AI. However, lectures on how to use the technology, such as a faculty development session shared from Kansai University of International Studies in February 2023, (Narasaki, 2024) suggest that the use of both generative AI and AI translation are being embraced by many universities in Japan. According to Warschauer et al. (2023), universities have a responsibility to teach students how to use AI tools for writing because such tools are likely to be necessary in the workplace of the future. Perhaps the pressure to change is imposed from outside by technology providers and institutional representatives who want to be seen as progressive. But there is also pressure to resist change from those who believe students need to master basic skills before using AI. Tensions between these two views may explain why there are still some universities at which no official policy has been announced.

As a teacher of Academic Writing at MIU, I decided to survey students on the issue in order to make more informed decisions about how my teaching and evaluation of academic writing might need to be updated. In order to adapt to this new situation, there is a need for open dialogue between language learners and teachers. Hitherto the dialogue has usually occurred in the context of a student being accused of cheating. The survey was an attempt to gain insight into how students viewed the issues at a particular point in time, November 2023. It was hoped that the survey would stimulate dialogue and break the taboo which seemed to exist between students and teachers in talking about AI.

Background

As early as 2010, Bower found that students were using machine translation and thought they would benefit from instruction on its use (Bower, 2010). He surveyed students taking a translation course. Sixty nine percent of students had used Yahoo, Excite or Google translate, with the majority using Yahoo. About half (118 out of 258) were unaware of machine translation. Fifty-two did not use it because they thought that it was not helpful for their learning, or that their writing was better or because they were told not to use it by a teacher. The majority were using online translation as a dictionary rather than for translating whole assignments. Bower recommended that the principled use of translation should be incorporated into the courses at his university. More recently, professors such as Lee (2020) have advocated the use of a step-by-step method which allows students to use assisted translation while developing an awareness of the difference between languages by writing their own translation first and comparing it with AI translation.

Many major universities, such as those of the UK Russell group, have produced policy statements on the use of AI (Russell Group, 2023). The Russell Group embrace AI, saying that “Staff should be equipped to support students to use generative AI tools effectively and appropriately in their learning experience.” At the same time, they also make a pledge which is probably difficult to fulfil and impossible to police: “Universities will ensure academic rigour and integrity is upheld.” Regarding the detection of cheating with AI, Farrelly and Baker (2023) state that although software for the detection of AI is being developed very fast, no company felt that their detection software would be reliable enough to use as evidence of academic misconduct in a high-stakes context. The reason was that the software is sometimes mistaken, detecting plagiarism where there is definitely none, in control situations. I have experimented with Zero GPT, which seemed the most effective. Farrelly and Baker emphasise the seriousness of allegations of cheating, and conclude that it is quite impossible to be completely sure unless the particular duplicated source is found.

Prior to undertaking the survey, I was equally interested in finding out about students’ attitudes and experience of both translation software and generative AI. However, for ethical reasons and to obtain true responses, I felt that it was important to emphasise that my research was a neutral investigation rather than a covert campaign for or against the use of AI or, even worse, an attempt to search out those who were misusing technology. Therefore, translation software was chosen as the main focus of the questions and no questions focused directly on the particular student’s own use of translation or generative AI.

Creating A Survey Instrument To Explore Students’ Views on AI-Assisted Translation

Uehara (2023) created a Rasch-metrics validated survey asking about students’ use of machine translation, focusing on whether they use it, the details of how and where, whether they edit the output and whether they use it in a way that will benefit their language acquisition (or by implication, only to finish the task quickly). Although the use of an existing survey would be desirable from the point of view of validity, I chose to focus on ethical issues about AI, rather than its specific use, due to the sensitivity of the issue in the university. Miyazaki International University has a policy of using only English in class and there is no “translation studies” major, so (at least until fall 2023) it would be unlikely that students had been allowed to use AI translation, let alone taught to use it in a principled way, as described by others such as Lee (2020), Ohashi (2022) and Uehara (2023).

The questionnaire was constructed in accordance with recommendations in Dornyei (2003). “With regard to responses that might be felt will meet with disapproval”, Dornyei

suggests “wording the question in such a way that it suggests the behaviour is rather common”, “assuming the occurrence of the behaviour” and “phrasing the question in such a way that it refers to ‘other people’.” (p. 58) He emphasises the need for confidentiality when the topic is of a sensitive nature. Multi-item scales, in which one concept forms the basis of several questions, are more accurate than single item scales (p. 32-4). Dornyei (2009) recommends us to “include both positively and negatively worded items.” (p. 108-9). The inclusion of negatively worded items offers a way of checking that students are actually reading the survey rather than just clicking the same number each time. This increases the internal reliability of a questionnaire (Dornyei, 2009, p. 109). It is suggested that the items dealing with various different concepts should be mixed up (p. 111) in order to keep the respondents engaged and encourage them to deal with each question separately. Here is an example of a pair of items which I expected to produce opposite responses:

2. It will not be necessary to learn to write in English if AI can write for us.

11. In the future it will be important for me to be able to write English without AI.

We would expect those who agree strongly with (2) will disagree with (11). I have marked such items as “reverse weighted” below.

The questionnaire was shared with a colleague who has expertise in science and with two senior students who work as student assistants. They were asked to offer corrections or additions, to improve the likelihood of getting honest responses. The research project, including the survey questions, was translated into Japanese and approved by the research ethics review committee of the university. The core areas of investigation were as follows:

Beliefs regarding the efficacy of AI (questions 1, 2, 6, 11 (reverse weighted), 12)

Beliefs regarding whether AI use is ethical (questions 3, 4 (reverse weighted), 7)

Beliefs regarding teachers and AI use (questions 8, 9,10,13)

Personal intentions regarding AI in hypothetical situations (5, 11 (reverse weighted))

The survey was fully anonymous. Responses were collected from 28 first year students during their Global Studies class and 62 third year students during the Senior Thesis class in the second and third weeks of November 2023. At the time, I went to the class by prior agreement with the lecturers, to explain that the purpose was to gather data on their opinions rather than their actual practices, and that all data would be anonymous. Since many of the second year are taking part in study-abroad programs during the fall, they were not available for the survey. The total number surveyed was therefore 90.

Findings

Since the questionnaire was given to both first and third year students, there was a possibility that students' views would be different depending on their school year. In order to check whether the responses were affected by school year, the average of the response to each question was calculated in Excel and the freshman group and third year group's averages were compared. Although it would be reasonable to expect a difference, for example, for third year students to be more knowing or more permissive regarding the use of translation software, this was not the case. They were very close indeed, since the responses were generally within 0.2 of each other on a scale of 1 to 5, it seems that the difference of each answer was only 0.04%. The comparison of means for each question can be seen in Appendix B. It was decided to report the statistics for first year and third year students together because the difference between the group averages was so small as to be statistically insignificant.

Descriptive statistics for students' responses regarding the efficacy of AI and related issues are given in Table 1.

Table 1

Responses Concerning the Efficacy of AI and Related Issues

Questionnaire Item	Average	SD	Median
1. In the future AI will be able to write and translate as well as humans.	4.222	1.156	5
2. It will not be necessary to learn to write in English if AI can write for us.	1.767	1.027639993	1
6. In the future successful people will be the ones who can use AI.	3.822	1.023	4
11. In the future it will be important for me to be able to write English without AI.	4.318	1.066	5
12. In the future companies want workers who can use AI for translation and writing English.	3.550	1.164	4

We can see that the majority of students agreed with the statement that "In future, AI will be able to write as well as humans." Students gave answers indicating strong agreement with item 1 and 11, and mild agreement with 6 and 12. It was anticipated that there would be a correlation between the responses on items about the efficacy of AI, since it seems logical

that if AI is able to write and translate as well as humans, then success in life or at work would entail using AI. However, when the Pearson correlation coefficients were calculated using free software (Stangroom, 2024), the results showed that item 1 and 6 had a weak correlation ($R = 0.4143$, $p < 0.001$). The correlation between item 1 and 12 was not statistically significant ($R = 0.1157$). In other words, there was only a slight correlation between the idea that AI will approach human skill levels in future, and the belief that companies will want workers who can use AI. It might have been expected that there would be a negative correlation between the response to 1 and 11, since logically speaking, if you believe that AI is going to be really good at writing, you might be likely to believe that you will not need to write by yourself. However, there was only a weak negative correlation, which was statistically insignificant on further probing. The average response for question 11, “In future, it will be important for me to be able to write English without AI” was a little higher than that for question 1, suggesting that respondents are positive about making an effort to write by themselves.

The second set of questions relates to whether it is OK to use AI-assisted tools for writing. The responses showed weak agreement with the idea that it was OK to use apps such as translation apps for homework or essay writing, and weak disagreement with the idea that good students do not use technology. Question 7 probes what students think other people would do. The response is slightly stronger agreement than shown on question 3.

Table 2

Beliefs regarding whether AI use is ethical

Questionnaire Item	Average	SD	Median
3. It is OK to use apps such as google translate when doing homework or essays.	3.3	1.063	3
4. A good student does not use technology to write.	1.865	1.046	2
7. Many people would like to use apps such as Chat GPT to write part of their assignment, if they can do it without a penalty.	3.722	1.241	4

The next set of questions targets how students see the teacher and institution in relation to AI use. The results can be seen in Table 3.

Table 3*Beliefs regarding teachers and AI use*

Questionnaire Item	Average	SD	Median
8. Teachers should teach students how to use AI translation and writing apps.	3.856	1.314	4
9. Teachers should allow the use of AI translation and writing apps.	3.322	1.014	3
10. If students had to sign a paper promising they did not use AI, this would be an effective way to stop them using AI.	2.258	1.362	2
13. The teacher would not notice if a student handed in an essay containing a paragraph written by AI.	2.178	1.237	2

There was quite strong agreement that teachers should teach students to use AI translation and writing apps. Strangely, the responses saying that teachers should *allow* the use of apps were actually at a lower level of agreement than that teachers should *teach* about apps. This will be discussed further in the discussion section. It was interesting that students did not think that a paper pledge would be effective to stop their peers from using AI. They disagreed that teachers would not notice AI use (question 13).

When it comes to students' personal intentions regarding AI use in hypothetical situations, the results highlight a conflict between their desire to use AI to help with their writing (question 5) and their feeling that they will need to be able to write without AI (question 11).

Table 4*Table 4: Personal intentions regarding AI use in hypothetical situations*

Questionnaire Item	Average	SD	Median
5. If I was in a hurry to finish a long assignment I would like to use an app to help.	3.910	1.122	4
11. In the future it will be important for me to be able to write English without AI.	4.318	1.066	5

Further statistical analysis was done to explore the apparent contradictions between some of the answers. It was anticipated that students would agree with the statement "A good student does not use technology to write" and that this would correlate strongly with "It will be important for me to be able to write English without AI." However, students responded negatively to "A good student does not use technology to write" and positively to "In the future it will be important for me to be able to write English without AI."

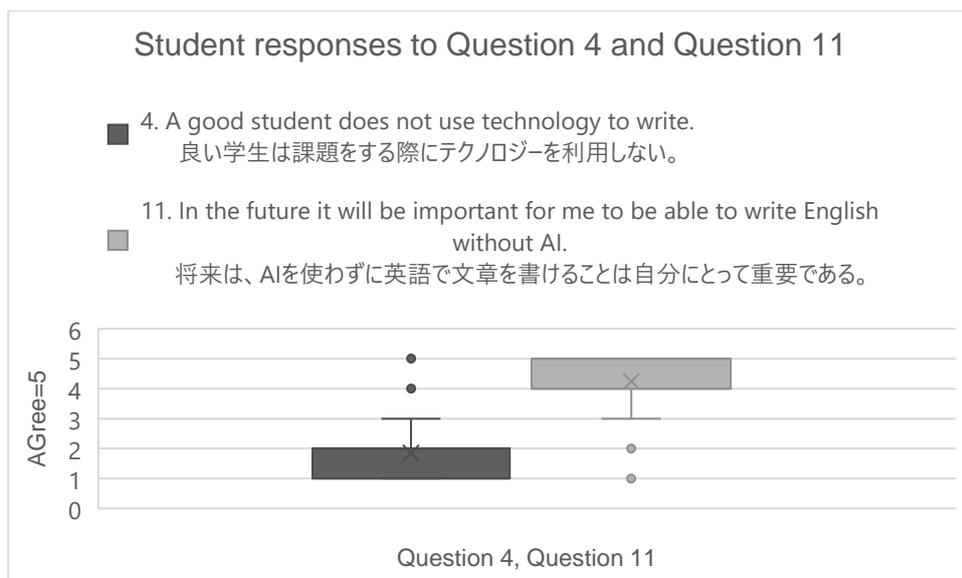


Figure 1 Comparing “A good student does not use technology to write” with “In the future it will be important for me to write without AI.”

When we look at the box and whisker chart comparing responses to Question 4 and Question 11, it appears that there is a negative correlation between the answers. When the Pearson correlation coefficient was calculated, it revealed that the correlation was statistically insignificant ($R=0.0198$. The P-Value= 0.853047 . The result is *not* significant at $p < .05$. The value of R^2 , the coefficient of determination, is 0.0004 . Even when the outliers were deleted, the correlation was statistically insignificant ($R= 0.0447$, $P=0.675696$).

Discussion

There seem to be some interesting contradictions within the data. The items which drew the strongest agreement were question 11, “In the future it will be important for me to be able to write English without AI” and question 1, “In the future AI will be able to write and translate as well as humans”. There is an inherent contradiction which requires some interpretation here. It is possible that students produced what they felt to be the morally correct response, or that they feel a strong sense of wanting to be independent from AI due to the ethos of the university, which emphasizes the use of English in the classroom. When it comes to the students’ use of AI for writing assignments, they feel that its use is legitimate and they want teachers to teach about it, as shown by the responses to questions 5 and 8. The responses were very close, with 3.9 for item 5 “If I was in a hurry to finish a long assignment I would like to use an app to help” and 3.856 for item 8, “Teachers should teach students how to use AI translation and writing apps.” It is logical that these responses would be related. But there

is an apparent contradiction in that the responses show a higher agreement with the idea that teachers should teach students how to use apps than with the idea that teachers should allow the use of apps (item 9). Presumably students have their own reasoning process whereby they reconcile these ideas. It is possible that a teacher might demo an app and then tell students not to use it. It would be fascinating to find out more about this but at the same time, it remains a potentially sensitive issue as long as those who use AI are at risk of being accused of cheating. Students seem to believe that AI will be of importance in the workplace of the future but at the same time they do not believe that they will be relying on using it all the time. Rather than taking the results at face value perhaps there are levels of *Honne* (“What one really thinks”) and *Tatemae* (“Official position”) which show up in the discrepancies between the answers (Translations from *Tangorin*). There may also be a certain amount of cognitive dissonance occurring. Students did not think that signing an honesty pledge would make their peers less likely to use AI (question 10). However, they did think that teachers are able to detect the use of AI (question 13). This may related to several incidents in which faculty confronted students for using generative AI during spring semester 2023. Such cases have been resolved quietly. The penalty is that students receive zero for an assignment which has been done with generative AI, but they are not publicly “outed” nor expelled, as they might have been a few years ago.

The situation is developing quickly as the capabilities of AI are growing and its use is becoming normalized. In February 2023, a faculty development session was held online in Japanese by the Learning Evaluation and Education Development Council of Kansai International Council, with sessions on “Business Utilization of generative AI such as chat GPT” and “Educational use of AI such as chat GPT”. In March 2023, Google announced that generative AI and AI editing support will be available within Google Workspaces. (Google, March 15, 2023). Evidence of the increasing uptake of AI tools for language education can be found in papers such as O’Hashi & Alm (2023). The issue merits further investigation and collaboration between faculty to share effective practices and ensure that students are learning and being evaluated fairly. The survey results indicate a need for guidelines on what constitutes a fair use of AI tools and how to reference such use. It was surprising for me that students felt no inhibitions about saying that they disagree that “A good student does not use AI for writing.” In the future, the university may need to work on a policy on the use of AI assisted work and create a place for teaching both guidelines and know-how, within the curriculum and diploma policy.

Conclusion

The survey provided a snapshot of students' attitudes and beliefs regarding the use of AI translation. The results suggest that students do not feel the use of AI translation to be unethical and they desire instruction in how they should use it. They believe they will need to be able to use English without AI in the future. This gained stronger agreement than the idea that successful people will have to use AI in the future. There were some places where the responses appeared contradictory. These areas are worthy of further exploration. It would be interesting to interview students to find out more about the apparent contradictions in their answers. Moreover, as tools increase in accuracy and availability, evaluation practices will need to change and rely less on unsupervised writing. There are various options, including supervised writing, integrated skills assessments featuring a combination of writing and speaking, and longitudinal documentation of the development of writing through portfolios.

References

- Bower, J. (2010). Japanese university students use of online machine translators for English writing tasks. *Language Education Research*, 21. Kanda University of International Studies.
- Doroney, Z. (2003). *Questionnaires in second language research*. Lawrence Erlbaum Associates.
- Doroney, Z. (2009). *Research methods in applied linguistics*. Oxford University Press.
- Farely, T. and Baker, N. (2023). Generative artificial intelligence: implications and considerations for higher education practice. *Education Sciences*. 13(11).
<https://doi.org/10.3390/educsci13111109>
- Lee, S.M. (2020). The impact of using machine translation on EFL students' writing. *Computer Assisted Language Learning*, 20.3.
<https://www.tandfonline.com/doi/abs/10.1080/09588221.2018.1553186>
- Mork, C. M. (2022). "Writing assessment in the new landscape of AI software – how do we respond?" *Comparative Culture* 27. Miyazaki International University.
<https://www.miu.ac.jp/cms-miu/wp-content/uploads/2023/07/ComparativeCulture2022.pdf>
- Narasaki, T. (2024, February 13). Chat GPT などの生成 AI の「教育活用」 [Educational Use of AI such as Chat GPT]. Kansai University of University of International Studies, Online Faculty Development Session.
- Ohashi, L. & Alm, A. (2023). ChatGPT and language learning: University educators' initial response. *CALL for all Languages: EUROCALL 2023 Short Papers*. 15-18 August 2023, University of Iceland, Reykjavik. <https://doi.org/10.4995/EuroCALL2023.2023.16917>
- Ohashi, L. (2022). Machine translation in language education. (Presentation). Euro CALL 2022. <https://www.youtube.com/watch?v=K3VzcfvhTRI>
- Peer E., Mazal N., Fardman Y., and Ariely D. (2023). Honesty pledges: The effects of involvement and identification over time. *Bar Illan University Faculty of Law Research Papers*. <https://dx.doi.org/10.2139/ssrn.4355553>
- New principles on the use of A.I. in education. (2023). Russell Group.
<https://russellgroup.ac.uk/news/new-principles-on-use-of-ai-in-education/>

- Stangroom, J. (2024). Social science statistics, Pearson correlation coefficient calculator. <https://www.socscistatistics.com/tests/pearson/>
- Tangorin Online Dictionary <https://tangorin.com/words?search=honne>
- Uehara, S. (2023). Teachers' perspectives of machine translation. I *Learning from Students, Educating Teachers—Research and Practice*. <https://doi.org/10.37546/JALTPCP2022-31>
- University of Minnesota. (n.d.) Academic honesty pledges and honor codes as active learning strategy. <https://teachingsupport.umn.edu/resources/academic-integrity/communicating-expectations/academic-honesty-pledges-honor-codes-active>
- Warschauer, M., Tseng, W., Yim, S., Webster, T., Jacob, S. Du, Q. & Tate, T. (2023). The affordances and contradictions of AI-generated text for second language writers. *Journal of Second Language Writing*, 62.101071 <http://dx.doi.org/10.2139/ssrn.4404380>
- Wright, J.V. (2023, March 14) A new era for AI and Google Workspace. *Google Workspace Product News* <https://workspace.google.com/blog/product-announcements/generative-ai>

Appendix: Questionnaire

Survey Questions アンケート質問 (案)

Please think about the question and choose the answer according to how strongly you agree or disagree. 以下の質問に対して、1 から 5 で回答してください。

Note 注: Disagree そう思わない=1 Agree strongly 強く思う=5

1. In the future AI will be able to write and translate as well as humans.
将来は AI (人工知能) が人間と同じように文章を書いたり翻訳したりできるだろう。
2. It will not be necessary to learn to write in English if AI can write for us.
AI が代わりにしてくれるので、英語で文章を書けるよう学ぶ必要はない。
3. It is OK to use apps such as google translate when doing homework or essays.
宿題やレポート作成を行う場合に Google 翻訳のようなアプリを使用しても良い。
4. A good student does not use technology to write.
良い学生は課題をする際にテクノロジーを利用しない。
5. If I was in a hurry to finish a long assignment I would like to use an app to help.
長い課題を急いで仕上げないといけない場合は、補助としてアプリを使用した。
6. In the future successful people will be the ones who can use AI.
将来は、AI を利用できる人たちが成功する。
7. Many people would like to use apps such as Chat GPT to write part of their assignment, if they can do it without a penalty.
減点などの罰が無いのであれば、多くの人が ChatGPT のようなアプリを課題の部分的な作成のために使用したい。
8. Teachers should teach students how to use AI translation and writing apps.
教員はどのように AI 翻訳や文章作成アプリを使用するか学生に教えるべきである。

9. Teachers should allow the use of AI translation and writing apps.

教員は AI 翻訳や文章作成アプリの使用を許可すべきである。

10. If students had to sign a paper promising they did not use AI, this would be an effective way to stop them using AI.

学生に AI を使用しないことを約束する紙に署名をさせることは、学生に AI を使わせない効果的な方法である。

11. In the future it will be important for me to be able to write English without AI.

将来は、AI を使わずに英語で文章を書けることは自分にとって重要である。

12. In the future companies want workers who can use AI for translation and writing English.

将来は、企業は翻訳や英語での文章作成のために AI を使える人材を求めるだろう。

13. The teacher would not notice if a student handed in an essay containing a paragraph written by AI.

AI を使用して作成した段落が含まれているレポートを学生が提出しても、教員は気づかない。

Appendix B

Comparison of Survey Responses of Freshmen versus Third Year Students (0=disagree, 5=agree)

Survey question	Average answer of freshmen	Average answer of third years
1. In the future AI will be able to write and translate as well as humans.	4.357	4.161
2. It will not be necessary to learn to write in English if AI can write for us. 2.246	1.964	1.677
3. It is OK to use apps such as google translate when doing homework or essays	3.393	3.258
4. A good student does not use technology to write	1.821	1.855
5. If I was in a hurry to finish a long assignment I would like to use an app to help	4.036	3.79
6. In the future successful people will be the ones who can use AI	3.897	3.79
7. Many people would like to use apps such as Chat GPT to write part of their assignment, if they can do it without a penalty.	3.89	3.790
8. . Teachers should teach students how to use AI translation and writing apps.	3.93	3.822
9. Teachers should allow the use of AI translation and writing apps.	3.43	3.27
10. If students had to sign a paper promising they did not use AI, this would be an effective way to stop them using AI	2.246	2.286
11. In the future it will be important for me to be able to write English without AI.	4.286	4.333
12. In the future companies want workers who can use AI for translation and writing English.	3.571	3.54
13. The teacher would not notice if a student handed in an essay containing a paragraph written by AI.	2.5	2.032