


Identifying and responding to Artificial Intelligence in evaluating written assignments

Zuzana Hrdličková

Department of English Language and Literature, Faculty of Education, Trnava University in Trnava, , email: zuzana.hrdlickova@truni.sk

How to cite: Hrdličková, Z. (2024). Identifying and responding to Artificial Intelligence in evaluating written assignments In Y. Choubsaz, P. Díez-Arcón, A. Gimeno-Sanz, J. Hriňák, X. Liashuk, S. Pokrivčáková & H. Vančová (Eds.), *CALL for Humanity – EUROCALL 2024 Short Papers*. <https://doi.org/10.4995/EuroCALL2024.2024.19104>

Abstract

The paper aims to find out if Slovak students participating in the project ‘ePortfolio as Pedagogy Facilitating Integrative Learning’ use generative AI in their written assignments and to what extent. Using free AI detectors such as ZeroGPT, QuillBot and Scribbr the assignments will be tested if they are AI/GPT generated, human written including parts generated by AI/GPT or human written. Research will try to come up with answers to the following research questions – RQ1: ‘Do the students use AI tools in a way that is dishonest or unfair in order to get what they need?’, RQ2: ‘Does AI provide the students who are allowed to use it with real help?’ and RQ3: ‘Are there still students who do not use AI tools?’ The paper also discusses briefly favourite AI tools for teachers and best AI detectors used all over the world. Research findings have shown that most Slovak students use AI tools to improve their skill of writing, regardless of using them ethically or not. However, there are still students who do not use them at all. Accordingly, several recommendations will be provided to researchers, academics and teachers for addressing this issue and applying or studying AI applications in language education in the future.

Keywords: *assignment; writing; AI detector; Artificial Intelligence in language education.*

1. Introduction

Artificial intelligence (AI) affects significantly all sectors of people’s lives. It has attracted great interest in higher education which is primarily influenced by the development of information and communication technology. According to Crompton and Burke (2023), AI is a tool used across subject disciplines such as language education, engineering education, mathematics education, medical education, and so on. As the field of Artificial Intelligence in Education (AIEd) is growing and changing fast, there is a need to increase the understanding of the power of AIEd in educational contexts (Zawacki-Richter et al., 2019). In their study, Liang et al. (2024) explore the roles and research foci of Artificial Intelligence in Language Education (AILED). They discuss the studies published from 1990 to 2020 in the Web of Science database and their review results show that the main application domains of AILED research were writing, reading and vocabulary acquisition.

Ever since OpenAI released ChatGPT to the public for free, students have been testing the limits of chatbots – generative AI tools powered by language-based algorithms – which can complete essay assignments within minutes. This tool is capable of writing good essays. The results tend to be grammatically perfect but

intellectually uninteresting, frequent with cliché and misinformation and, therefore, students need to rework what AI generates to get these essays right (Bobrow, 2023). In the United States, many selective colleges give more weight to admissions essays. As more colleges offer test-optional or test-free admissions, essays are becoming more important.

Apart from essays, ChatGPT can also generate articles, jokes, poetry, job applications, and the like in response to text prompts. In the United Kingdom, more than half of undergraduates say they consult AI programmes to help with their essays. A survey of 1,250 UK undergraduates conducted by the Higher Education Policy Institute (Hepi) found that 53% were using AI to generate material for work they would be marked on. One in four are using applications such as Google Bard or ChatGPT to suggest topics and one in eight are using them to create content. Just 5% admitted to copying and pasting unedited AI-generated text into their assessments. Moreover, nearly three-quarters (73%) expect to use AI after they finish their studies (Adams, 2024; Freeman, 2024).

According to Guadamuz (2024), it is not surprising that more and more students are adopting AI and he suggests institutions need to be explicit in discussing how best to use it as a study tool. OpenAI states that all humans will benefit directly from artificial general intelligence. Few American or British colleges have offered guidance for how students can use AI ethically. When students are not given guidance, there is a higher risk of them resorting to plagiarism and misusing the AI tool. US educators are in the process of working out how to respond to AI writing tools like ChatGPT. Research into current guidelines of 100 top universities has revealed that most of them do NOT have definitive guidelines yet. According to Caulfield (2023), at 27% of universities, there seem to be no clear guidance or policy so far, at 51% of universities, individual instructors decide their own policy for now, at 18% of universities, tools are banned by default unless instructors say otherwise, and at 4% of universities, tools are allowed (with citation) unless instructors prohibit them.

The main aim of the paper is to find out if Slovak students, participating in the KEGA Project ‘ePortfolio as Pedagogy Facilitating Integrative Learning’, a mutual cooperation between the University of Economics in Bratislava (Rusiňáková, 2023) and Trnava University in Trnava, Slovakia, use generative AI in their assignments and to what extent. The assignments will be tested via free AI detectors such as ZeroGPT, QuillBot and Scribbr. Research will try to come up with answers to research questions – RQ1: ‘Do the students use AI tools in a way that is dishonest or unfair in order to get what they need?’, RQ2: ‘Does AI provide the users who are allowed to use it with real help?’ and RQ3: ‘Are there still students who do not use AI tools?’ Accordingly, several recommendations will be provided to researchers, academics and teachers for addressing this issue and applying or studying AI applications in language education in the future.

2. Favourite AI tools and best AI detectors

Working group ‘AI in education’ at Tilburg University in The Netherlands provides a list of favourite AI tools: (a) Chatbots: ChatGPT, GPT Store, Microsoft Copilot (Bing Chat) and Google Gemini, (b) AI tools for teachers: PowerPoint Speaker Coach, ClassPoint AI and GradeScope, (c) Content creation, writing and editing: QuillBot, Canva and Grammarly, (d) Research and information retrieval: Perplexity AI, Explain Paper, Consensus, Elicit, SCI Space and Tavily AI, (e) AI Tools for coding and data analysis: Julius AI, Github Copilot, Monkeylearn and Heuristica. Of course, the list is much longer. In Slovakia and Germany, Adamcová and Rusch (2023) deal with integrating Artificial Intelligence into language curricula, they investigate the complex role of AI, briefly describe chatbots and AI writing assistants such as ChatGPT, Grammarly, and so on.

Since our paper is focused on testing texts via three AI tools, namely ZeroGPT, QuillBot and Scribbr, we searched for the papers in order to find out if and how they are used. It was no problem to find the newest sources describing them. For instance, Latifah et al. (2024) investigate the use of QuillBot in academic writing and offer a systematic literature review. Mohammad et al. (2023) discuss EFL paraphrasing skills via QuillBot and unveil students’ enthusiasm and insights. Fitria (2021) describes QuillBot as an online tool and students’ alternative in paraphrasing and rewriting of English writing. Yoandita and Hasnah (2024) discuss QuillBot as an alternative writing tool as well as examine its uses on the academic writing performance of EFL learners.

In order to find out what the best AI detectors for teachers and students are, we provide the classifications by Lee (2023) and Driessen (2024). Lee (2023) describes the finest AI detectors available for teachers in 2023. She has meticulously handpicked the top 9 options that are highly recommended by educators themselves: (a) Winston AI (with their educators' rating: *****), (b) CopyLeaks (***), (c) Content at Scale (***), (d) AI Detector Pro (****), (e) Scribbr (**), (f) Sapling (**), (g) GPTKit (***), (h) GPTZero (**), and (i) Turnitin (*****).

AI detectors are tools designed to detect when a text was generated by an AI writing tool like ChatGPT. AI content may look convincingly human in some cases, but these tools aim to provide a way of checking for it. Driessen (2024) investigated just how accurate they really are. To do so, he used a corpus of testing texts including fully ChatGPT-generated texts, mixed AI-and-human texts, fully human texts and texts modified by paraphrasing tools. He ran all these texts through 12 different AI detectors to see how accurately each tool labelled them. For the purpose of our research, we focus on the first seven ones (Table 1).

Table 1. Best AI detectors in 2024. (Source: Driessen, 2024).

Tool	Accuracy	False positives	Free	Star rating
1. Scribbr (premium)	84%	0	x	4.2
2. QuillBot	78%	0	yes	3.9
3. Scribbr (free)	78%	0	yes	3.9
4. Originality.AI	76%	1	x	3.7
5. Sapling	68%	0	yes	3.4
6. CopyLeaks	66%	0	yes	3.3
7. ZeroGPT	64%	1	yes	3.1

In our research, we will use free AI detectors since some of our students have used them to identify AI when they had to peer-review their classmates' seminar papers.

3. Method

3.1. Context and participants

The main aim of the research is to find out if third-year students participating in the KEGA Project 'ePortfolio as Pedagogy Facilitating Integrative Learning' use AI tools to develop their writing skills. In the summer term of 2023/2024, 31 students of the Department of English Language and Literature, Faculty of Education, Trnava University in Trnava, participated in it.

Apart from studying the compulsory topics in the course, they were asked to do four assignments (including CVs/résumés). Firstly, they discussed the importance of the job-seeking process and its main stages: exploring, researching, applying, interviewing, following up and negotiating (Quintanilla & Wahl, 2020). In the third stage, they studied different types of text and their structure, cohesion and coherence (Adamcová, 2014) and then they learned how to write a generic résumé as a starting point for the customized résumé. Also, they distinguished between different types of résumés – chronological, functional, a combination of chronological and functional, for electronic screening and cover letters written in British and American English (Floyd & Cardon, 2020; Tomaska & Nosek, 2018; Wallwork, 2019). Secondly, in a study abroad grant application, they were supposed to describe their academic achievements and professional goals and how this relates to their decision to study

abroad, challenges they faced in their decision to study abroad, the funds they came from to pay their living and educational expenses; scholarships and financial aid; and any other information about themselves that they would like the selection committee to consider them to be convenient candidates for the grant. Finally, an energy report (the outcome of a case study) was the most difficult task. When writing a report, they had to follow the structure: executive summary, introduction, findings, conclusion, recommendations and appendices (if they wished to add them).

3.2. Data collection instruments

Each student was supposed to do 3 written assignments (covering letter, study abroad grant application and report) during the summer term and submit them to Moodle which is commonly used to support every course by the Department of English Language and Literature. The students received feedback regularly from the lecturer and by doing minor corrections in them or re-writing them, they were able to create their own e-portfolios in Mahara or Google Sites platforms. Altogether, we were able to gather 89 assignments via Moodle.

3.3. Data analysis

First, 89 written assignments, will be tested via AI detectors such as *ZeroGPT*, *QuillBot* and *Scribbr* and then individual students' results will be summarised and compared. Our research will try to answer the following research questions: RQ1: 'Do the students use AI tools in a way that is dishonest or unfair in order to get what they need?' RQ2: 'Does AI provide the students who are allowed to use it with real help?' and RQ3: 'Are there still students who do not use AI tools?'

4. Results

4.1. Quantitative data results

We found ZeroGPT straightforward to use. We just pasted in text to test it immediately and the results showed a text label, a percentage and text highlighting indicating which parts of the text are most likely AI generated. As it can be seen, Tables 2–4 show the labels in ZeroGPT, percentages per students and percentages per groups.

Table 2. Covering letters in ZeroGPT. (Source: Author's data).

Labels in ZeroGPT	Percentage (Student)	Total
1. The text is AI/GPT generated	100% (S8), 100% (S29), 98.48% (S25), 98.05% (S26), 94.38% (S18), 87.44% (S24), 87.36% (S5), 80.53% (S12)	26.7%
2. The text is likely human-written, may include parts generated by AI/GPT	60.3% (S14), 54.97% (S11), 45.83% (S3), 43.52% (S9), 41.5% (S20)	16.7%
3. The text is most likely human written, may include parts generated by AI/GPT	37.43% (S22), 35.96% (S1), 34.99% (S19), 33.54% (S4), 25.57% (S16), 24.69% (S27), 22.15% (S17)	23.3%
4. The text is human written	18.28% (S23), 16.8% (S28), 15.34% (S7), 17.05% (S10), 12.82% (S30), 2.76% (S6), 0% (S2), 0% (S13), 0% (S21), 0% (S31)	33.3%

When looking at the first and second labels (Table 2), more than 40% of the students rely on AI/GPT. However, about one third of the students were able to write their covering letters without the help of AI/GPT.

Table 3. Study abroad grant applications in ZeroGPT. (Source: Author's data).

Labels in ZeroGPT	Percentage (Student)	Total
1. The text is AI/GPT generated	100% (S9), 100% (S18), 100% (S28), 100% (S29), 97.7% (S26), 97.36% (S25), 92.69% (S24), 67.87% (S12)	25.80%
2. The text contains mixed signals, with some parts generated by AI/GPT	68.79% (S11)	3.23%
3. Most of the text is AI/GPT generated	66.86% (S8)	3.23%
4. The text is likely human-written, may include parts generated by AI/GPT	60.07% (S5)	3.23%
5. The text is most likely human written, may include parts generated by AI/GPT	25.96% (S3)	3.23%
6. The text is human written	19.9% (S15), 15.51% (S31), 13.65% (S1), 11.81% (S20), 8.85% (S22), 6.79% (S2), 3.6% (S10), 0% (S4), 0% (6), 0% (S7), 0% (S13), 0% (S14), 0% (16), 0% (17), 0% (S19), 0% (S21), 0% (S23), 0% (27), 0% (S30)	61.29%

Considering study abroad grant applications (Table 3), again approximately 40% of the students used AI tools to create them. However, more than 60% of the students did not rely on any AI tools.

Table 4. Reports in ZeroGPT. (Source: Author's data).

Labels in ZeroGPT	Percentage (Student)	Total
1. The text is AI/GPT generated	100% (S25), 97.11% (26), 95.81% (S12), 94.08% (S17), 88.73% (S18), 88.55% (S28), 86.67% (S7), 78.41% (S8), 77.35 (S29)	32.14%
2. Most of the text is AI/GPT generated	63.26% (S24)	3.57%
3. A text is most likely AI/GPT generated	62.58% (S31), 53.09% (S27)	7.14%
4. The text is likely generated by AI/GPT	42.18% (S22)	3.57%
5. The text is most likely human written	18.66% (S4)	3.57%
6. The text is human written	19.64% (S9), 17.2% (S30), 11.47% (S2), 7.59% (S5), 1.77% (S15), 0% (S3), 0% (S10), 0% (S11), 0% (S14), 0% (S16), 0% (S19), 0% (S20), 0% (S21), 0% (S23)	50%

As far as energy reports are concerned (Table 4), nearly 50% of the students used AI/GPT. However, there are still students who do not use AI tools at all. To conclude, more and more students turn to AI/GPT for help.

In Tables 5–6, individual students' results are worth considering. In Table 5, 12 out of 31 students who definitely rely on AI are highlighted in olive-green colour. The assignments (Ass1, Ass2, Ass3) were written with the help of AI tools since it was confirmed by at least two (in some cases three) AI detectors as '100% AI-generated.'

Table 5. Students using AI tools to improve their writing skills. (Source: Author's data).

Student	Ass1 – Covering letter			Ass2 – Study abroad grant application			Ass3 – Report		
	ZeroGPT	QuillBot	Scribbr	ZeroGPT	QuillBot	Scribbr	ZeroGPT	QuillBot	Scribbr
S3	45.83%	100%	100%	25.96%	91%	100%	0%	68%	53%
S7	15.34%	0%	7%	0%	0%	24%	86.67%	100%	100%
S8	100%	67%	100%	66.86%	87%	87%	78.41%	100%	100%
S9	43.52%	36%	24%	100%	100%	100%	19.64%	0%	79%
S11	54.79%	0%	13%	68.79%	100%	100%	0%	0%	62%
S12	80.53%	77%	100%	67.87%	100%	100%	95.81%	91%	100%
S18	94.38%	87%	100%	100%	100%	71%	88.73%	100%	100%
S24	87.44%	100%	100%	92.69%	100%	100%	63.26%	83%	100%
S25	98.48%	100%	100%	24.87%	100%	100%	100%	100%	100%
S26	98.05%	100%	100%	97.7%	86%	100%	97.11%	100%	100%
S28	16.8%	0%	26%	22.25%	100%	100%	14.25%	100%	100%
S29	100%	100%	65%	100%	74%	100%	77.35%	83%	100%

Table 6. Students who do not use AI tools to improve their writing skills. (Source: Author's data).

Student	Ass1 – Covering letter			Ass2 – Study abroad grant application			Ass3 – Report		
	ZeroGPT	QuillBot	Scribbr	ZeroGPT	QuillBot	Scribbr	ZeroGPT	QuillBot	Scribbr
S4	33.54%	68%	100%	0%	0%	0%	16.66%	0%	34%
S6	2.76%	0%	25%	0%	0%	0%	---	---	---
S10	17.05%	0%	26%	3.6%	0%	40%	0%	0%	0%
S16	25.57%	0%	19%	0%	9%	2%	0%	0%	1%

S21	0%	14%	0%	0%	0%	0%	0%	0%	1%
-----	----	-----	----	----	----	----	----	----	----

In Table 6, students who do not use any AI tools to improve their writing skills are highlighted in orange colour. It was also confirmed by two or three AI detectors (0%).

4.2. Testing the text via AI detectors

The following Figures 1–3 show Assignment 2 written by Student 9. All three AI detectors – ZeroGPT, QuillBot and Scribbr labelled it as ‘100% generated by AI.’

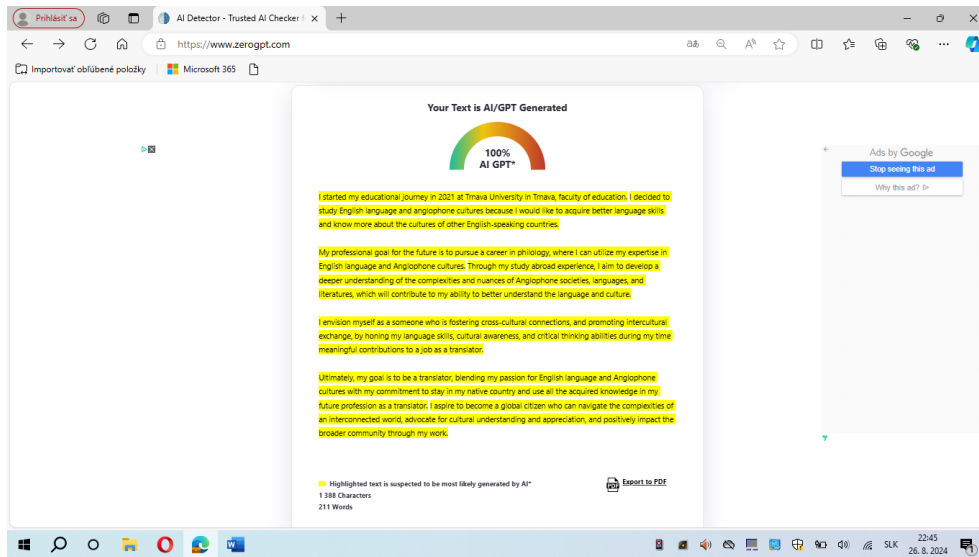


Figure 1. Testing the text in ZeroGPT. (Source: S9, Author’s data).

Apart from the label ‘100% of the text is likely AI-generated’, QuillBot also lists ‘AI-generated and refined’, ‘human-written and AI-refined’ and ‘human-written’. To enhance one’s writing, it offers to try a Paraphraser.

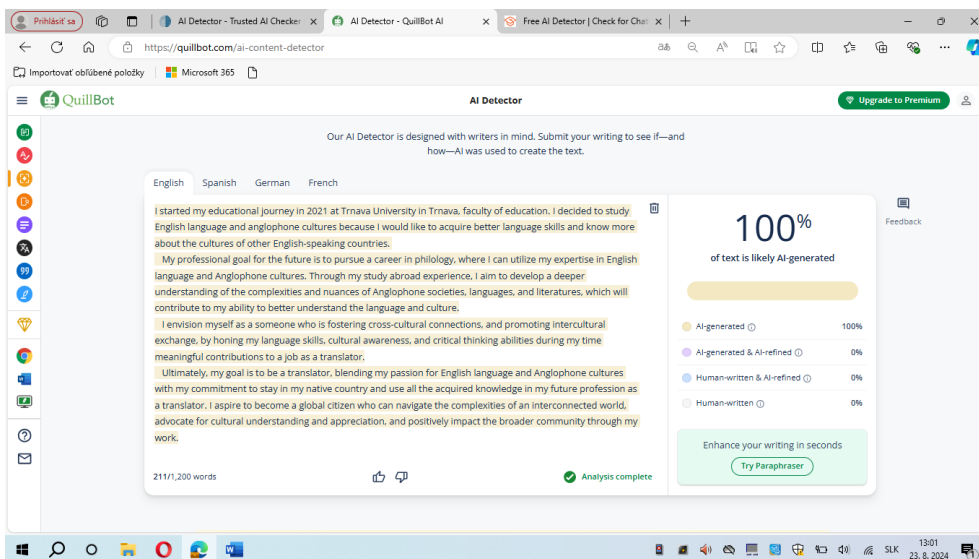


Figure 2. Testing the text in QuillBot. (Source: S9, Author’s data).

Both ZeroGPT (Figure 1) and QuillBot (Figure 2) highlight suspected parts of the text in yellow and pink colour.

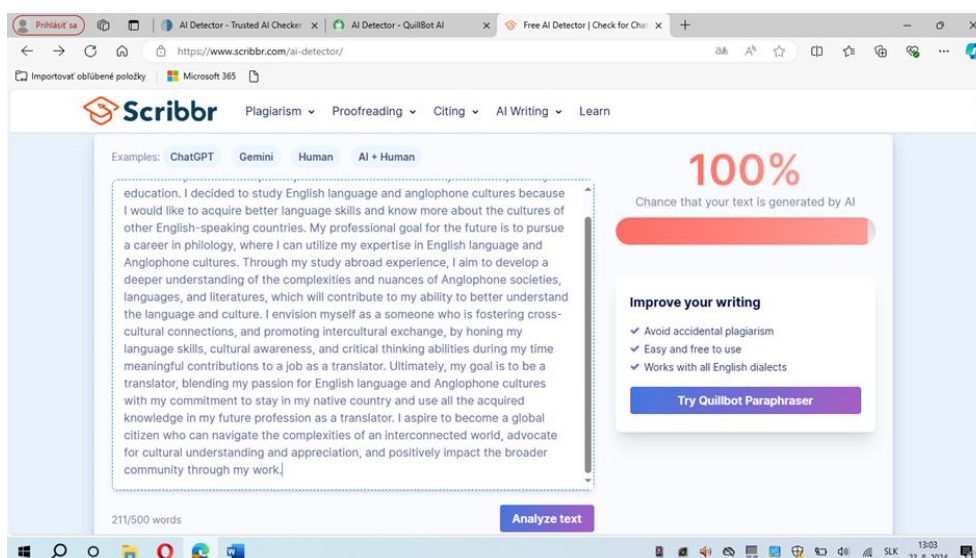


Figure 3. Testing the text in Scribbr. (Source: S9, Author's data).

Regarding Scribbr, Assignment 2 was labelled as '100% chance that your text is generated by AI.' Additionally, Scribbr suggests improving one's writing in order to avoid accidental plagiarism and that a Paraphraser is easy and free to use as well as it works with all English dialects.

In addition, we need to mention, at least, Student 20 who does not use AI tools at all and his/her Ass2 (11.81%, 0%, 0%). After reading this assignment we realised how many stylistic, grammatical and spelling mistakes or errors he/she had made. We decided to improve this text by QuillBot Paraphraser (Figure 4).

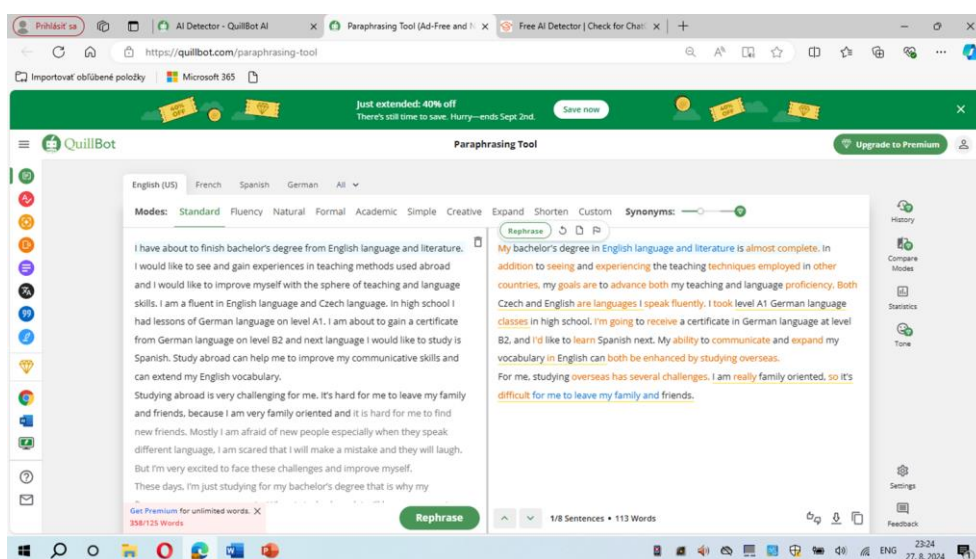


Figure 4. Paraphrasing the text in QuillBot. (Source: S20, Author's data).

The only thing this student needs to do is to paste the text into a QuillBot Paraphraser tool. The text is rephrased in seconds and the student can immediately see what kind of mistakes and errors he/she has made and does not have to wait for the lecturer's feedback. In the future, the student will definitely be encouraged to use it.

5. Discussion

Our research has shown that more students use AI tools when doing written assignments. We strongly agree with Guadamuz (2024) who states that it is not surprising more and more students adopt AI tools. One of the main

advantages is that it is extremely quick to do a piece of writing with the assistance of AI. AI tools such as ChatGPT are here to help them. However, they need to realise that AI tools are allowed to use for generating ideas not for copying all texts without paraphrasing them at all.

Our research answers the following research questions:

RQ1: ‘Do the students use AI tools in a way that is dishonest or unfair in order to get what they need?’ The answer is: ‘Yes, they do.’ For example, Student 3 (Ass1 – 45.83%, 100%, 100%), Student 8 (Ass1 – 100%, 67%, 100%; Ass3 – 78.41%, 100%, 100%), Student 9 (Ass2 – 100%, 100%, 100%), Student 11 (Ass2 – 68.79%, 100%, 100%), Student 12 (Ass2 – 67.87%, 100%, 100%), Student 18 (Ass2 – 100%, 100%, 71%; Ass3 – 88.73%, 100%, 100%), Student 24 (Ass1 – 87.44%, 100%, 100%; Ass2 – 92.69%, 100%, 100%), Student 26 (Ass1 – 98.05%, 100%, 100%; Ass3 – 97.11%, 100%, 100%), etc. They needed to do these assignments and they managed to submit them to Moodle (Table 5).

If we consider the projects like ours, we do not think the statistical comparison of the results at the beginning and the end of the term will differ much. Therefore, if we want to measure students’ real improvement we should ban using AI tools. Especially, Students 18, 24, 25, 26 and 29 overused AI tools. We also noticed that Students 11, 20 and 24 got worse marks from a final written examination and Students 9 and 26 had to retake it once or twice.

RQ2: ‘Does AI provide the users who are allowed to use it with real help?’ The answer is: ‘Yes, it does.’ For instance, all these students (Table 5) submitted to Moodle the assignments of higher quality than expected. It definitely helped Student 25, with special educational needs, to carry out his/her duties.

RQ3: ‘Are there still students who do not use AI tools?’ The answer is: ‘Yes, there are.’ For instance, Student 6 and Student 21 do not rely on AI tools at all. From our experience, we can state that they were either excellent at speaking or very good at taking final written examinations. We noticed that Students 4, 10 and 16 got As from written examinations and Students 6 and 21 got Bs from them.

Research limitations. Firstly, even though the students had enough time to do their assignments in classroom and were controlled, helped and encouraged all the time by a lecturer, some of them were not able to complete them in a seminar. Secondly, two or three students submitted their assignments in PDF formats. When we copied the text from this format, the percentage was low. However, when we copied the text from a PDF format and put it in a Word document, the percentage was much higher. In our view, the difference likely arises from how text is processed and formatted when it is copied from a PDF to a Word document. PDFs may introduce irregularities that disrupt the detector’s algorithms, while Word tends to standardise and clean the text, making it easier for the AI detection tool to assess the content as AI-generated.

Thirdly, some of the students were not able to submit their assignments for grading on time, in extreme cases they were more than 50 days late, but we think they decided to take examinations at the last resort. Finally, Considering AI tools, Scribbr was the one that tested up to 500-word texts and in some cases energy reports were longer than that.

As far as *further research* is concerned, we aim to analyse students’ pre-tests and post-tests written at the beginning and the end of the summer term of 2023/2024 via statistical methods to find out the significance of the difference between the level of knowledge acquired during the term. In addition, we aim to do a literature review on the best AI tools for students and teachers in order to create our own guidelines for using AI tools in educational context.

6. Conclusions

Modernising the education process, developing digital literacy and improving writing skills are partial objectives of the Project KEGA ‘ePortfolio as Pedagogy Facilitating Integrative Learning’. In higher education, in courses in English for Specific Purposes and English for Academic Purposes students should acquire and improve all four skills. Reading and writing and listening and speaking need to be integrated in order to achieve the set objectives. Moreover, integrative learning improves performance which then leads to professional excellence.

There is no doubt that in the past the skill of writing was the most difficult one to acquire. When this project was written and submitted for getting a grant from the Cultural and Educational Grant Agency in Slovakia, no ChatGPT was in place. Therefore, it was aimed at practicing writing genres such as a formal and semi-formal e-mail, a minutes of a meeting, a summary, a CV, a covering letter, a study abroad grant application, a report, etc.

However, these days we face a new challenge. Since ChatGPT was officially released in November 2022 to the public for free, students all over the world turn to it to help them with essays, job applications, summaries, and the like. Since we need to evaluate the project statistically if our students' skills have improved after hard work done during the terms, we tried to find out if they also use AI tools. Therefore, our research tested their written assignments via AI detectors such as ZeroGPT, QuillBot and Scribbr. The final results are really surprising – most of the students use them, but there are also students who do not rely on them at all. Therefore, it is lecturers' duty to find out what AI tools are the best ones for students and work out the guidelines for them to use several AI tools ethically. In addition, we hope this paper will contribute to working out the guidelines for the lecturers and for our university.

Acknowledgements

This paper is part of the KEGA Project 012EU-4/2023 entitled 'ePortfolio as Pedagogy Facilitating Integrative Learning' supported by the Ministry of Education, Research, Development and Youth of the Slovak Republic.

References

- Adamcová, S. (2014). Text ako jazyková a štylistická jednotka reči. *Cudzie jazyky v premenách času IV: recenzovaný zborník príspevkov z medzinárodnej vedeckej konferencie konanej 24.–25. októbra 2013 [v Bratislave], 26–28*. https://faj.euba.sk/www_write/files/veda-vyskum/konferencie/zborniky/cudzie-jazyky-v-premenach-casu-IV-zbornik.pdf
- Adamcová, S., & Rusch, M. (2023). Integrating Artificial Intelligence in Language Curricula: Empowering Students for Future Competencies. In T. Tinnenfeld (Ed.), *Journal of Linguistics and Language Teaching, 14*(2), 187–203. <https://doaj.org/article/08d842ab625047baa9a2a54abb6684e3>
- Adams, R. (2024, February 1). More than half of UK undergraduates say they use AI to help with essays. *The Guardian*. <https://www.theguardian.com/technology/2024/feb/01/more-than-half-uk-undergraduates-ai-essays-artificial-intelligence>
- Bobrow, E. (2023, August 27). 'A real opportunity': how ChatGPT could help college applicants. *The Guardian*. <https://www.theguardian.com/education/2023/aug/27/chatgpt-ai-disadvantaged-college-applicants-affirmative-action>
- Caulfield, J. (2023, April 24). University Policies on AI Writing Tools. Overview & List. Scribbr. <https://www.scribbr.com/ai-tools/chatgpt-university-policies/>
- Crompton, H., & Burke, D. (2023). Artificial intelligence in higher education: the state of the field. *International Journal of Educational Technology in Higher Education, 20*(22). <https://doi.org/10.1186/s41239-023-00392-8>
- Driessen, K. (2024, July 10). Best AI Detector: Free & Premium Tools Compared. Scribbr. <https://www.scribbr.com/ai-tools/best-ai-detector/>
- Fitria, T. N. (2021). QuillBot as an online tool: Students' alternative in paraphrasing and rewriting of English writing. *Englisia: Journal of Language, Education, and Humanities, 9*(1), 183–196. <http://dx.doi.org/10.22373/ej.v9i1.10233>

- Floyd, K. & Cardon, P. W. (2020). *Business and Professional Communication. Putting People First*. New York: McGraw-Hill Education
- Freeman, J. (2024, February 1). Provide or punish? Students' view on generative AI in higher education. *Hepi*. <https://www.hepi.ac.uk/2024/02/01/provide-or-punish-students-views-on-generative-ai-in-higher-education/>
- Guadamuz, A. (2024). A Scanner Darkly: Copyright Liability and Exceptions in Artificial Intelligence Inputs and Outputs. *GRUR International*, 73(2), 111–127. <https://doi.org/10.1093/gruint/ikad140>
- Latifah, S., Muth'im, A., & Nasrullah, N. (2024). The Use of QuillBot in Academic Writing: A Systematic Literature Review. *Journey: Journal of English Language and Pedagogy*, 7(1), 110–121. <https://doi.org/10.33503/journey.v7i1.4047>
- Lee, A. (2023, August 6). 9 Best Free AI Detectors for Teachers. Medium. <https://angela-lee.medium.com/9-best-free-ai-detectors-for-teachers-recommended-by-teachers-038-professionals-d87ae3a1f483>
- Liang, J. C., Hwang, G. J., Chen, M. R. A., & Darmawansah, D. (2021). Roles and research foci of artificial intelligence in language education: an integrated bibliographic analysis and systematic review approach. *Interactive Learning Environments*, 31(7), 4270–4296. <https://doi.org/10.1080/10494820.2021.1958348>
- Mohammad, T., Alzubi, A., Nazim, M., & Khan, S. I. (2023). EFL paraphrasing skills with QuillBot: Unveiling students' enthusiasm and insights. *Journal of Pedagogical Research*, 7(5), 359–373. <https://doi.org/10.33902/JPR.202324645>
- Quintanilla, K. M., & Wahl, S. T. (2020). *Business and Professional Communication. Keys for Workplace Excellence* (4th ed.). Los Angeles: Sage Publications, Inc.
- Rusiňáková, J. (2023). Academic e-portfolio. *Lingua et vita*, 12(2), 39–45. <https://linguaetvita.sk/aktualne-vydanie#jarmila-rusinakova-academic-e-portfolio-akademicke-e-portfolio>
- Tomaska, L., & Nosek, J. (2018). Ten simple rules for writing a cover letter to accompany a job application for an academic position. *PLoS Computational Biology*, 14(5). <https://doi.org/10.1371/journal.pcbi.1006132>
- Wallwork, A. (2019). *English for Academic CVs, Resumes, and Online Profiles*. Berlin/Heidelberg: Springer International Publishing
- Working group 'AI in education' at Tilburg University, The Netherlands. (2024). Our Favourite AI Tools. <https://tilburg.ai/our-favorite-ai-tools/>
- Yoandita & Hasnah, Y. (2024). QuillBot as an alternative writing tool: Examining its uses on the academic writing performance of EFL learners. *Esteem: Journal of English Education Study Programme*, 7(2), 401–412. <https://doi.org/10.31851/esteem.v7i2.15254>
- Zawacki-Richter, O., Marín, V. I., Bond, M., & Gouverneur, F. (2019). Systematic review of research on artificial intelligence applications in higher education – where are the educators? *International Journal of Educational Technology in Higher Education*, 16(39). <https://doi.org/10.1186/s41239-019-0171-0>