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Assessing the influence of AI on modern student writing standards: An educators' perspective

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Abstract

The study examines the many-sided impact of AI integration in UAE's education system on student learning and academic outcomes as perceived by teachers. Five key themes emerged through analysis of interview transcripts, which are relevant for this research. According to the results obtained, artificial intelligence has significantly transformed learners' experiences by providing real-time feedback and personalized assistance. However, potential exists that use of AI may kill people creativity. Respondents also noted a tendency towards uniformity and repetition in students' writing styles consistent with existing literature. This suggests that there should be an equilibrium between AI-generated content and students' ideas to preserve scholarly integrity. Additionally, this paper shows that the application of AI tools like ChatGPT has influenced students' thinking and writing models remarkably indicating excessive reliance on these systems at the expense of deep understanding of issues at hand. What comes out clearly from this investigation is how AI can be strategically managed so as to minimize its demerits yet maximize its benefits in education?

Keywords: Technological trends, Cognitive problems, Digitalization, Interaction with technology, Conversational bots, ChatGPT



Introduction

Artificial Intelligence (AI) has emerged as one of the most advanced technological trends in recent times that is used for various purposes in our daily lives. It is a medium that has been transforming how individuals today can solve cognitive problems associated with human intelligence such as education and learning (Fitria, 2023). With rapid digitalization, people across the world have become well aware of the concept of AI and its prevalence has been increasing considerably across all sectors thus transforming the way people interact with technology (Leal Filho, et al. 2023). The widespread use of AI has influenced activities in the fields of education, medical science, security, surveillance, and several other areas (Guleria, et al. 2023). Since this technology offers automation, it has the possibility of changing the way contemporary and future teachers can teach the students thereby facilitating their way of learning lessons (Sumakul, et al. 2022). The application of AI-based tools enables the students to interact with conversational bots and ask questions thereby seeking clarifications and tailored responses (Huallpa, 2023). In higher education, the integration of relevant tools like ChatGPT offers opportunities for academic growth for the apprentices; however, it also raises concerns relating to biases, plagiarism, inaccuracy, privacy issues, and other content-related issues. All these factors tend to affect the quality of writing which would be taken into consideration in this research study.

Research Questions

- What is the prevalence of using AI in writing academic papers?
- What are the different AI tools used by pupils to reduce cliches and increase coherence in academic writing?
- How have students' writing standards changed before and after the widespread integration of AI tools in education?
- What are the ethical concerns associated with using AI in academic papers?
- How to recognize AI-generated content in students' assignments?

Benefits and Challenges of AI in Student Writing: Educators' Perspective

In this current era, individuals have become well aware of the benefits and opportunities offered by AI. The flexibility and simplified solutions for writing assignments have garnered the attention of a large population across the world. However, there is limited information available on the impact of AI on the students' writing standards that changed over time. Although this technology helps in effective knowledge acquisition, logical judgments, and accurate decision-making, the students' papers often contain issues in terms of assuring authentication of AI-generated textual information. The students of the contemporary education system are highly dependent on the use of different AI tools in their writing and the benefits of the same have been highlighted in various previous research studies. The most notable loophole, in this case, is that there are very few studies that indicated the teachers' perceptions and acceptance of using technology in lessons. The teachers or the educators are the most relevant groups of individuals who are likely to evaluate the pupils' papers and assess the changes in their standards of writing before and after the use of AI. Hence, they have the most appropriate ideas on how AI has been affecting the quality of assignments of the students both academically and ethically, which have not been explored in detail in previous studies. Therefore, it is essential to recognize their perspectives in order to comprehend the advantages and ethical considerations in this situation and how they can influence the students' overall educational progress.

Literature Review

The emergence of AI has presented easiness and effortless execution of human activities. The implementation of effective AI tools has enhanced the ability of individuals to be creative and acquire vast amounts of knowledge on different subjects in a much quicker and more relevant way. According to Shidiq (2023), this technology has been designed to integrate human intelligence to help and offer support in learning, making decisions, adapting to circumstances as well as understanding human language. His research depicted how AI-based applications such as virtual mentors, robots, and voice assistants have influenced personalized learning and automated assessments. It has been investigated by Toncic (2020) that in the field of education and learning, AI has revolutionized the overall process of gathering information, writing content, managing assessments, and other related aspects. It has thus become much easier for the apprentices to carry out their assessments and perform all academic activities efficiently and conveniently.

Writing any kind of content is a challenging task as it involves the incorporation of specific languages, choice of expressions and tonality, and appropriate use of grammar and vocabulary (Fitria, 2021). It is a type of non-verbal communication that ensures conveying accurate information and ideas to articulate a particular topic. Therefore, greater cognitive skills and knowledge of language are required to express and comprehend a concept in a structured and well-defined manner. As such, students with poor language and writing skills have become immensely reliant on the use of AI software for seeking assistance in writing their assessments and excelling in their academic profiles. As depicted by Cotton et al. (2023), one of the major advantages of the AI textual language model is that it promotes asynchronous communication by allowing the learners to post questions as well as discuss topics in a detailed manner. In the words of Marzuki et al. (2023), these tools are used for analyzing written materials and checking the contents to detect errors relating to sentence construction, grammar, syntax, vocabulary, and standardized structure. This enables the learners to obtain instant information and feedback on their writing thus enhancing their abilities.

In the contemporary educational sector, user acceptance of AI technologies has increased significantly which improved the performance of both the tutors and the students. As opined by Sumakul et al. (2022), this machine learning intelligence mechanism has invaded the classrooms and the students' perceptions by providing necessary feedback and guidance on grammatical errors, writing structures, and other related academic aspects. As such, they have gained more confidence and motivation in conducting meaningful communication as well as improving reading comprehension. Sumakul et al. (2022) stated that perceptions of individuals towards technology acceptance act as the key factors that determine the extent to which they perceive that technology can bring potential benefits to their activities. For example, the Plot Generator app is used by students who are non-native English speakers to learn English as a foreign language (EFL). It assisted them in terms of theoretical concepts, writing process, and use of sophisticated language that increased positive perceptions of the learners towards this AI technology across the world. Also, Song, C. and Song, Y. (2023) addressed that the availability of AI software applications in mobile devices and computers offers convenient opportunities for apprentices to improve their assignment writing abilities.

The individuals have been getting accustomed to different digital tools like Grammarly and Spellchecker to rectify their grammar and spelling errors (Toncic, 2020). Other AI writing applications like Quillbot, Jeni, Copy.ai, Essay Writer, etc. have influenced the students' writing quality Marzuki et al. (2023). Also, maintaining a correct flow in writing is essential for producing meaningful, informative, and persuasive content. As investigated by Marzuki et al. (2023), good organization of written content ensures a smooth flow and presentation of ideas presented logically and coherently. The choice of the

right words along with their rightful expressions helps in effective communication and conveying thoughts accurately. AI tools for checking grammar or syntax errors tend to overlook the critical roles of the content and its organization. With the integration of AI applications, the level of input or effort from humans in the writing process has been reduced (McKnight, 2021). One such application that gained predominance in the current educational and learning process is the ChatGPT model developed by OpenAI.

According to the research undertaken by Friederich and Symons (2023), the launch of ChatGPT in 2022 has attracted unprecedented attention in the field of education across the world. Their study indicated that this model has created new opportunities for the students to find a vast array of information about different topics and concepts without spending much time researching and looking for data. As opined by Lund and Wang (2023), ChatGPT is a pre-trained natural language processing machine learning intelligence application, that has the capacity of performing different types of language-based tasks such as text generation, paraphrasing, question answering, translation, researching, and even providing references of various existing studies. It is a chatbot integrated with an enormous online dataset text used for facilitating individualized learning and on-demand support. With the application of ChatGPT, the present-day teachers or instructors can provide individualized recommendations thus helping students with their respective higher education learning and growth needs (Huallpa, 2023). Another example of AI technologies highlighted by Schmohl et al. (2020) is the Thesis Writer, developed at the Zurich University of Applied Sciences in Switzerland, which is used for reviewing texts and detecting grammatical or syntax errors in written content. However, this technology does not assist in developing writing strategies or other underlying supportive issues. Semantics and contextual writing support are demanded by the apprentices extensively to develop a well-structured and composed academic assessment (Schmohl, et al. 2020). Therefore, user acceptance of ChatGPT has miraculously increased in the universities. The ability of this model to create well-crafted essays with refined vocabulary, summarize research papers, and generate helpful codes beneficial for writing content. As per Woo et al. (2023), educators, researchers, or supervisors need to identify the opportunities that they can experience when using these AI tools and align with the best interests of the learners. It allows educators to leverage their capabilities and encourage student creativity.

With the growing demand for AI-based platforms in education, schools and universities are inclined towards adopting the flipped classroom teaching model which promotes innovative hybrid teaching and learning concepts (Li & Peng, 2022). According to their study, mainstream digital technologies accompanied by big data analytic AI functions are adopted for managing and tracking students' performance thereby increasing their skills of writing comprehensive assignments. Thus, it can be said that AI-based applications have made it possible for tutors to plan their lessons based on specific templates in a structured way while allowing the students to polish their writing by rectifying mistakes in real-time. As opined by Lingard (2023), tools like ChatGPT generate grammatically correct and meaningful responses. It can pave the way for educators and students to transform their overall teaching and learning practices thus facilitating the future education system. This is because ChatGPT offers flexibility and instant feedback to the individuals contributing to individualized learning experiences (Huallpa, 2023).

According to Li and Peng (2022), the AI-based flipped classroom model is highly effective compared to traditional classroom-based lectures since the former enables the students to improve their learning experience and even increases the efficient utilization of class time. Thus, more active classroom engagement has been fostered thus facilitating student-teacher as well as student-student interactions. Educators today have been making significant attempts to enhance AI literacy among pupils and reduce

their workload of themselves (Ng, et al. 2022; Schmohl, 2020). The employment of user-friendly AI tools in the education system resembles human intelligence, used by them to write their entire assignments thereby enabling them to receive better grades in their academic domain (AlAfnan et al. 2023). For instance, the use of ChatGPT helps in providing comprehensive responses to all types of questions in a well-structured textual manner which helps the present-day students to prepare an excellently composed paper thus enhancing their standards of writing.

Nevertheless, the availability of AI applications in education not only brought several opportunities but also gave rise to certain considerable ethical and privacy concerns for users. According to the study of Guleria et al. (2023), AI has complex algorithms that work like the human brain and emulate intelligent human behaviors thus enhancing the students' competencies in academic learning. It might seem tempting for the pupils to use AI software like ChatGPT for generating assignment submissions; but it does not help them to learn or apply their intelligence in any way (AlAfnan, et al. 2023). They lack creativity and fail to show any considerable development in their academic portfolios which affects their educational achievements. According to Cotton et al. (2023), AI writing applications are used for remote learning and enable learners to boost their communication and problem-solving skills. However, Cotton's research also contradicted that AI tools like ChatGPT promote high-level cheating and plagiarism among learners. This is because the AI-generated content can often be copied and pasted by the users without proper attribution and checking thereby leading to unintentional or intentional plagiarism.

Similar to this perspective, Fyfe (2023) indicated that the extensive deployment of AI software tends to restrict students from reflecting on their understanding and presenting personal interpretations of a particular subject. This is because the students fail to connect their insights to the broader conversations about humanities in writing thus posing ethical concerns. In the words of AlAfnan et al. (2023), there are tools or applications for detecting AI-based plagiarized content such as Turnitin that help in identifying the texts being extracted directly from the AI platforms like ChatGPT in the assignment papers which restricts originality. The extent of similarity contained in a paper is easily detected through Turnitin thus making it challenging for the pupils to escape plagiarism. This is because Rane et al. (2023) denoted excessive reliance on the ChatGPT-generated content might discourage them from nurturing their ideas and creativity thereby depriving them of all the opportunities to cultivate unique perspectives and problem-solving abilities. Moreover, the risk of bias, lack of transparency, and inaccurate content are also some of the vital issues that the students experience while writing their assignments (Lingard, 2023). It has been explored in Lingard's study that the specific references being asked for by the learners are often invented by ChatGPT based on word associations and realistically combining keywords and coauthors. Hence, the authenticity of the assignments is compromised.

AlAfnan et al. (2023) further pointed out to lack of accuracy in AI-generated assignments. This is because the AI software fails to construct accurate thesis statements for the students' essays by not covering all the major points discussed. Also, as found by Liu et al. (2024), the use of ChatGPT led to increased homogenized contents which affected human intelligence. Following a specific template not only establishes precision in students' essays but also presents commonness and repetition of phrases in their writing. In this reference, Mindner et al. (2023) also indicated that repetitive use of phrases and formulaic contents diminishes creativity and limits the range of ideas and expressions of the students. Following a core standardized structure in writing restricts the students from applying their understanding in formulating their flow in their assignments thus affecting originality. The users do not get adequate necessary support in this respect which lacks authenticity and transparency of information. Therefore, the student's academic credibility is hindered. Additionally, Cotton et al. (2023) identified

the unfair advantage of using ChatGPT experienced by the students in their assignments. Their study indicated that the flexible and convenient accessibility of these tools allows the students to generate high-quality written papers; yet, leading to inequities in the process. Drawing an inference from Cotton's study, AlAfnan et al. (2023) even highlighted the issue of a lack of well-organized academic essays thereby posing challenges to independent decision-making. This especially fails to reflect the actual level of understanding and knowledge base of the students.

Apart from all these challenges, data privacy, and security have also been significant obstacles in terms of accessing textual information from AI-based tools. As depicted by Huallpa (2023), the massive reliance of the students on ChatGPT has raised concerns about the privacy and security of their personal information while generating large volumes of responses. The AI systems are not trained about the private details of the students and therefore, these can adapt incorrect or incomplete patterns and produce incorrect replies that are not diverse enough and not of high quality. A similar aspect has been observed by Guleria et al. (2023) as well since the AI tools have a limited understanding of the real world or moral compass. These do not have details about the users of ChatGPT or the authors of the research information. As such, biased outcomes can be reflected which tend to affect the quality of assignments of the students. Therefore, it is required to emphasize more on following strong privacy policies to protect student data and cease unwanted access to the same. Also, it is important to analyze teachers' perspectives on how the use of AI is changing the students' writing standards.

Methodology

Sample size and participants

The targeted population for this particular research has been the group of tutors or supervisors who are closely associated with evaluating the students' academic performance. The schools and universities across the UAE have been considered for this research where AI tools like ChatGPT have gained predominance. The chosen sample included different subject teachers since they have experience in using AI themselves as well as checking student papers. A total of 20 educational professionals have been chosen in groups of four consisting of 5 members from each university. The sample was selected from 4 different universities from the major cities of the UAE namely Dubai, Sharjah, and Abu Dhabi through a purposive sampling technique. This sampling process is a non-random sampling technique that is used for the deliberate selection of the participants based on specific criteria relevant to the research objectives or questions. The reason behind choosing teachers as the participants for this study is that they have an awareness of both the positive and negative impacts of AI tools on the students' writing standards and thus can provide very concise information about the same.

Data Collection

Data collection is one of the most crucial steps in a research study that ascertains the accomplishment of the intended objectives. The collection of relevant data helps in uncovering different unknown aspects or concepts related to a particular area of study. In qualitative research, data collection plays a pivotal role since there is enough scope for obtaining in-depth and descriptive data from reliable sources. With respect to this study, primary data has been collected from the selected participants by adopting an integrated approach. They have been approached to participate in the qualitative interviews to gather relevant data about various factors related to the subject matter of the study. Focus group interview sessions have been conducted with the teachers from each university across three different rounds, each of 2 hours, to focus on the responses of the teachers of the respective universities closely. A questionnaire of 8 semi-structured questions has been generated (see Appendix A) and distributed to them to seek

their responses accurately and transparently. The questionnaire comprised questions relating to the perceptions of the teachers regarding how AI impacted the quality of academic writing of the students. The respondents could express their feelings and experiences clearly and openly against all the questions which assisted in the accurate interpretation and formulation of an effective conclusion to the overall research analysis. This primary qualitative data offered a comprehensive and nuanced understanding of the actual topic of the study by capturing contextual details and obtaining insights into the real-life experiences of the respondents. Hence, the richness of the collected data and reliability could be ensured.

Data analysis

The interview responses of the chosen educational professionals have been analyzed through the thematic approach. By generating appropriate themes, this study could offer insights into various aspects that are related to the way the emergence of AI tools has impacted students' academic writing standards in recent times. Certain important themes have been developed based on different factors identified in the interviews that explored patterns and generated new ideas quite effectively in the educational field. Thematic approach to data analysis is flexible and fosters simplified and meaningful findings which have been presented in the following section.

Findings and Analysis

This chapter has focused on presenting the findings obtained from interviewing all the selected participants and analyzing their perceptions on the concerned study topic. Based on the findings (see Appendix B), five different themes have been developed to distinguish the findings accurately as well as align the same with the literature review data. These themes are discussed as follows:

Theme 1: AI tools and instant feedback enhanced the learning experiences of students

The interview responses provided detailed insight into the way the application of different AI tools has enhanced the ability of the students to learn better and facilitated their academic growth. In context to writing university assignments, the selected educators have claimed that the students in their respective institutions have wholeheartedly adopted the AI mechanisms for preparing their projects in a refined and well-structured way. The participants unanimously agreed that the integration of AI has revolutionized the writing process for students by providing instant feedback tailored to individual writing styles. In this respect, it has been perceived that the students feel highly confident and inspired to use the AI tools to facilitate their academic growth and get better grades. The findings of Toncic (2020) can be related to the responses of the interviewees that depicted AI as a virtual writing guide supporting the students with prompt feedback and assistance while writing their academic papers. This is because these tools offer various new perspectives and dimensions that contribute to transforming the writing styles and approaches of the students.

To write well-structured essays, a coherent and logical flow of ideas needs to be maintained as indicated by Marzuki et al. (2023). The selected educators also supported this aspect in the interview as they claimed how AI implementation has improved the language usage, grammar, and vocabulary skills of the pupils at their universities by providing personalized feedback and prompt assistance. This denoted that a more proficient approach to preparing structured assignments is fostered which not only just elevated their writing competencies but also saved the students' time for researching and data collection. Thus, they can pay attention to refining language and grammatical skills to overcome their difficulties in writing essays. In this respect, the research findings of Friederich and Symons (2023) can be taken into consideration that stated about the launch of ChatGPT and the various new opportunities it

created for the students to find a vast array of information about different concepts in a short period of time. The study of Huallpa (2023) also denoted that ChatGPT provides personalized recommendations for meeting their individual academic growth needs. Therefore, the individuals can be able to produce a well-structured and composed academic assignment.

According to the interview responses, the feedback generated from the AI tools is highly personalized and provides real-time guidance for enabling the pupils to promptly identify and address issues in their writing. Also, aligning with the investigation of Li and Peng (2022), the interviewees agreed to use AI functions to review the students' progress leading to quick improvements that boost their confidence levels and enhance their skills of writing comprehensive essays. AI-generated feedback tends to be extensively detailed and specific which not only allows the students to understand their strengths and weaknesses accurately but also offers valuable suggestions for their rapid progress in developing proficient writing skills. The study by Sumakul et al. (2022) highlighted how AI helps guide students with grammatical errors and writing structures and other aspects by establishing effective communication and improving reading capabilities among the students. A similar aspect has been highlighted by the teachers during the interview sessions as they reflected upon the importance of meaningful communication along with improved reading comprehension on increasing the students' engagement in rectifying their mistakes closely thus achieving higher grades in exams. They have identified tools like Quillbot, ChatGPT, Grammarly, and Essay Writer that encourage creativity, collaborative brainstorming sessions, and expression among the pupils and allow them to refine their literary skills by experimenting with different styles and techniques.

Theme 2: AI impact on students' originality and creativity

AI tools have a very pivotal impact on enhancing the creativity and critical thinking abilities of students to a great extent. According to the participants' responses, it has been perceived that with the integration of AI tools within the education system, AI has successfully enabled individuals to explore vast amounts of information resources and generate unique ideas while writing their academic assignments. These have a stimulating effect on the creativity skills of the pupils as they offer various alternative perspectives and insights on different concepts thus allowing them to refine their thinking and produce sophisticated and logical arguments over time. This response can be related to Shidiq (2023) who also discussed the effectiveness of AI tools in driving the students to be creative and innovative through acquiring learning from various information sources. Moreover, one of the participants even claimed that the concerned technological applications challenge stereotyped thinking and facilitate the efficient accumulation of evidence and information thereby aiding the students in developing robust arguments and ideas in their assignments. This implies the effective use of AI tools has reduced the efforts made by the learners thus allowing the students to polish their writing by rectifying mistakes in real time as indicated in the studies of Lingard (2023) and McKnight (2021).

Further, the participants have stressed the importance of encouraging students to engage critically with AI-generated content and to explore in detail rather than replacing their ideas and interpretations. In this context, some of the participants raised concerns about the impact of AI content on the students' individuality and originality. It has been proclaimed by Cotton et al. (2023) that the asynchronous communication and ease of discussing topics on these AI platforms help them to get valuable insights about different aspects in a detailed manner. Arguably, Song, C. and Song, Y. (2023) opined that the convenience and easy availability of AI software applications offered to students have restricted their abilities to think creatively and put forth their ideas and understanding into writing their projects. As a result, the students' creativity and innovativeness are suppressed which affects their quality of

writing assignments. As per the interview participants, it has been understood that there is a perception of how the use of ChatGPT can result in assignments that would lack authenticity, transparency, and accurate references since the pupils might not be able to fully understand or acknowledge the sources of the content generated by the tool. As depicted by Lingard (2023), this can extensively decline the effectiveness of their academic projects.

Despite the benefits of the AI tools in streamlining the essay writing process, the selected interview participants talked about different instances where the apprentices were too dependent on ChatGPT-generated texts for preparing their assignments. According to them, this ease of generating information tends to discourage the students from developing their ideas and expressing those creatively by breaking the walls of pre-defined formulaic templates. Participants also noted that AI tools might lead to intentional or unintentional plagiarism as students might simply copy and paste content without engaging in critical analysis or reflection. According to AlAfnan et al. (2023), there is software like Turnitin that easily detects AI-based plagiarized content and identifies texts that restrict originality. The contents are paraphrased by the students but do not involve their ideas and interpretations which restricts their individuality and creativity in assignments. The reason behind this has been explained effectively by Lund and Wang (2023) as the students having difficulties in writing their own essays and academic papers find it more comfortable to extract content from tools like ChatGPT to facilitate individualized learning and receive on-demand support This is a very concerning factor as indicated by Fyfe (2023) since heavy reliance on AI-based information might result in a reduction of students' ability to articulate original ideas effectively. Moreover, similar to what Guleria et al. (2023) and Cotton et al. (2023) stated, the educators too claimed in the interviews that ChatGPT often produces inequities or incorrect replies which cannot be trusted for ensuring academic success.

Theme 3: Homogenization and Repetition of words and phrases due to AI integration (4,6)

The responses provided by the teachers of the selected UAE universities have offered significant insights into the phenomenon of homogenization and repetition of words and phrases in students' writing due to the integration of AI tools. It has been perceived that the participants have identified a trend towards homogenization in the assignments of the students in regards to adopting similar writing styles and syntax. These tools offer repetitive or formulaic content to the students which are blindly followed by the students thus compromising on the quality of their papers. The increased dependency on AI writing assistants provides the opportunity for individuals to adopt a standardized framework and present uniformity in grammar, sentence construction, and content development which concerns the participants. According to Marzuki et al. (2023), AI helps in detecting errors and offers a concise standardized structure for the students to write their assignments efficiently. However, Mindner et al. (2023) indicated that the increased use of repetitive use of phrases and formulaic contents under a core standardized structure hinders students' originality and academic credibility. Liu et al. (2024) and Rane et al. (2023) specifically mentioned ChatGPT-generated content that restricted the intelligence level of the students and discouraged them from applying their ideas to their projects. These perspectives of the researchers can be aligned with the viewpoints of the interview participants much more efficiently. They have shared several instances where they found a lack of diversity in the choice of words and phrases being used by the apprentices while writing their assignments. They expressed concerns as these AI tools are encouraging the use of formulaic language and pre-programmed phrases which can contribute to a homogenous tone and reduce the quality of writing. Based on the responses, it is quite evident that there is a need for the pupils to understand and balance the AI-generated content involving their thoughts and interpretations to ensure the authenticity of data and secure higher grades in their academic domains.

Theme 4: New patterns related to AI-generated contents

As reviewed in the literature, AlAfnan et al. (2023) addressed the issue of a lack of well-organized academic essays that restrict the independent decision-making of the students. This has been demonstrated from the responses of the interview participants as well. A notable shift in the students' writing styles has been indicated by the educators in terms of the choice of words, language as well as tonality of the papers. Overuse of formal and complex languages by students who do not usually apply those suggested the potential use of AI-generated content. This implies that the students cannot present their voices and ideas in their writing. The educators claimed that the quality of writing of the students has miraculously improved as they have started using precise and sophisticated words in their essays. In the words of Ng et al. (2022) and Schmohl (2020), educators are making constant efforts to enhance AI literacy among pupils; however, the overall quality and precision of the assignments are declining considerably as argued by the participants. Moreover, instances of false references and citations have been mentioned by participants that denoted the potential use of AI tools like ChatGPT to generate content which adversely affects the quality of the essays. Although Marzuki et al. (2023) claimed that AI helps in producing content in a logical and coherent manner; the participants' responses revealed that there is a significant lack of coherence in the student-written papers due to inconsistent use of languages and pre-defined formats which attributed to declining the quality of writing of the papers. As a result, the overall academic integrity and efficiency of the pupils might be compromised.

Theme 5: Transformation of students' way of thinking before and after AI implementation

As per the interview responses, the participants provided detailed insights into whether they believed that the students' way of thinking and applying their interpretations in writing was more effective before the widespread use of AI mechanisms. In this respect, they reflected upon how AI has driven considerable changes in student-written papers. Several participants have expressed concerns about the widespread use of AI leading to the greater dependence of the students on the related tools for generating content. According to them, students are now less likely to rely on their creativity and critical thinking skills due to the massive convenience and comfort offered by AI tools in terms of seeking suggestions and prompt feedback that influence their writing styles and content. Aligning this response with the study of Schmohl et al. (2020), the pupils demand semantics and contextual writing support extensively for developing a well-structured and composed essay. In this process, they fail to incorporate their ideas and knowledge about the topics which affects the flow of their writing and might decline their academic performance. Although Woo et al. (2023) stated how educators are making efforts to align the AI tools and align with the best interests of the learners; Kocoń et al. (2023) claimed that the use of such tools like ChatGPT might provide inaccurate information which can increase difficulties for the students. As per the participants, AI promotes standardized writing styles and formats which not only limit the students' ability to express their perspectives but also change the tonality of the assignments in a negative way. Drawing relevance from Fitria (2021), choice of expressions, tonality, and languages is of utmost importance in writing and thus, the extensive use of formal words and phrases denotes the potential use of AI by the students. However, there was a divergence in opinions regarding the impact of AI on writing standards. While some participants acknowledged that standards have been elevated due to the suggestions and feedback provided by AI tools; others have expressed concerns about the loss of originality and independence in the students' work. This is because prior to the emergence of AI algorithms, the students were more exposed to diverse viewpoints and ideas which they were able to apply in their writing. Also, they used to rely more on their interpretations and critical thinking skills which resulted in producing their original and enriched contents for their assignments. Participants

expressed concerns about the impact of AI on students' depth of understanding of subject matters. Although some of them claimed that the students used to make more errors before using AI; others noted reduced interaction between students and educators accompanied by overreliance on AI tools affecting the students' in-depth understanding of subjects. Hence, it can be said that collecting responses from educational professionals helped in understanding the ailing effects of AI on students' academic progress.

Conclusion

Validity and Reliability of data

The data obtained from the interview responses is valid and authentic as it employs an in-depth description of the viewpoints of the chosen respondents. Through the development of effective themes, it has been possible to effectively analyze different positive and negative ways AI has impacted the academic writing standards of the students of the UAE universities. The choice of interviews paved the way for this study to accomplish the intended research objectives and derive accurate answers to the highlighted research questions. Also, all the open-ended interview questions were tested before using those during interviewing the selected educational professionals. This enhanced the relevance and clarity of the questions. Moreover, a healthy rapport was established with the participants that encouraged them to provide honest and detailed responses to the questions. It should be noted that despite conducting focus group interviews, every participant shared their opinion and viewpoint which helped in arriving at a significant conclusion to this study.

The overall findings of the research have successfully achieved the research objectives by exploring the multifaceted impact of AI integration in the education sector of the UAE. A thorough analysis has been done across five distinct themes that were developed from the interview responses to seek valuable insights about the impact of AI on student learning and academic outcomes. It has been derived that while AI tools have undeniably enhanced the learning experiences of the pupils by providing instant feedback and personalized guidance; there are considerable concerns regarding their potential to hinder the originality and creativity of the students. The prevalence of homogenization and repetition in students' writing patterns has been well explained by the participants which could be aligned with the previous literature studies. This suggests a need for balance between the AI-generated content and students' interpretations which would help in maintaining academic integrity. Moreover, the perceived transformations in students' thinking and writing approaches due to the incorporation of AI tools like ChatGPT have denoted their overreliance on the technology which restricts the depth of understanding of topics among the students.

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