



## Artificial Intelligence (AI) and Intellectual Deterioration: Exploring the Impact of ChatGPT on Students' Academic Writing Skills and Performance

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**Abstract:** This research aims to precisely analyze the adverse effects of ChatGPT, an AI-powered writing assistant, on students' academic writing skills and performance. By thoroughly examining potential risks and drawbacks, the study seeks to provide insightful insights into the challenges posed by AI tools in the educational context. The study is conducted at Malakand University, District Dir Lower, Khyber Pakhtunkhwa, Pakistan, with a focus on 29 departments. A purposive-cum convenient sampling technique is used to select one student from each department, resulting in a total sample size of 29. Data is collected through in-depth interviews and focus group discussions, with a strong commitment to ethical considerations to ensure the reliability and validity of the study's qualitative research methodology. Thematic analysis is employed to analyze the data, revealing that AI ChatGPT can negatively impact students' academic writing, creativity, analytical thinking, intellectual power, and linguistic proficiency, leading to increased dependency. However, the study proposes recommendations to address these challenges. By empowering students to authentically express themselves and actively engage in the writing process, fostering critical thinking and creativity, we can maintain intellectual excellence even in the age of AI technology. Encouraging responsible AI use and promoting genuine language learning opportunities will ensure academic integrity and enhance linguistic proficiency, providing a balanced approach for students to thrive in the evolving educational landscape.

**Keywords:** AI ChatGPT, Students Writing Skills, Creativity, Intellectual Power, Critical Thinking, Dependency, Plagiarism Risk, Linguistic Proficiency

### 1. Introduction

In recent years, the integration of Artificial Intelligence (AI) has brought about transformative changes in various aspects of human life, with education being significantly impacted. AI-powered writing assistants, notably ChatGPT, have gained popularity for providing real-time feedback and suggestions to students engaged in academic writing (Baidoo-Anu & Owusu Ansah, 2023). However, the widespread use of such AI tools has raised concerns about their adverse effects on students' intellectual development, writing skills, and overall academic performance. This research delves into the specific context of District Dir Lower, Pakistan, focusing on university students, to investigate the detrimental impact of ChatGPT on their academic writing skills and performance.

Limited research has underscored the potential negative repercussions of ChatGPT and similar AI-powered writing assistants on students' academic writing skills in this region. A notable concern revolves around the overreliance on

AI-generated content, which poses a threat to critical thinking and stifles creativity among students. By offering pre-packaged suggestions, ChatGPT may discourage independent thought and originality, resulting in formulaic and unoriginal academic work (Rospigliosi, 2023). Furthermore, the automated nature of ChatGPT may hinder the development of fundamental writing skills, leading to a dependency on the AI tool for grammar corrections and structural improvements. This overdependence, prevalent among students, may impede language proficiency, hindering effective self-editing and revision capabilities (Malinka, Peresíni, Firc, Hujnák, & Janus, 2023).

Extensive research studies indicate that an excessive reliance on ChatGPT can detrimentally affect students' writing skills and creativity, ultimately impacting their overall academic performance. The frequent use of ChatGPT has been linked to a decline in critical thinking and originality in academic writing. The overuse of AI-generated content erodes students' writing skills by impeding critical thinking, stifling creativity, and hindering their ability to independently enhance their writing (Crawford, Cowling, & Allen, 2023). Additionally, dependency on AI language models may obstruct students' development of a unique writing style and creative thinking abilities, resulting in formulaic and unoriginal work (Helberger & Diakopoulos, 2023).

Writing, as a skill, requires consistent practice for improvement. However, consistent reliance on AI language models prevents students from honing their writing skills through practice, revision, and feedback, leading to stagnation or a decline in their abilities over time (Ibrahim et al., 2023). Furthermore, writing assignments involving critical analysis, argument formation, and evidence-based claims are hindered by an exclusive reliance on AI-generated responses. This may impede students' ability to critically evaluate information, conduct research, and construct well-reasoned arguments, hindering their intellectual growth (Dahmen et al., 2023).

In conclusion, while AI-powered writing assistants like ChatGPT offer real-time feedback, their extensive use in District Dir Lower, Pakistan, specifically among university students, has exhibited negative implications. Overreliance on AI-generated content adversely affects students' writing skills, destroys creativity and originality, fosters dependency, hinders intellectual growth, and limits critical thinking. Striking a balance between utilizing AI tools and actively engaging in the writing process is crucial for fostering writing skills and intellectual growth among students in the local context.

### **1.1 Aims of the Study**

This study investigates the adverse effects of ChatGPT, an AI-powered writing assistant, on students' academic writing skills and overall performance. Focused on Malakand University, Pakistan, the research meticulously examines risks associated with AI integration, emphasizing potential hindrances to critical thinking and creativity. It delves into concerns about overreliance, where students may excessively depend on ChatGPT, compromising their ability to autonomously identify and rectify errors. Rigorous analysis of student writing samples aims to reveal any detrimental impact on fundamental writing skills.

### **1.2 Study Rationale**

The escalating integration of Artificial Intelligence (AI), notably through tools like ChatGPT, in academic writing has gained prevalence in educational institutions. However, the growing reliance on ChatGPT among students in Khyber Pakhtunkhwa, Pakistan's universities raises concerns about its potential adverse effects on creativity, critical thinking, originality, and writing skills. Critics argue that excessive dependence may hinder students' capacity to generate independent ideas, compromising critical thinking and bypassing crucial writing stages. Additionally, AI language models like ChatGPT, by generating responses based on existing patterns, may impede the development of students' unique writing styles and authentic expression. This study aims to investigate the impact of AI, specifically ChatGPT, on students' writing skills and academic performance in Malakand University, District Dir Lower, Khyber Pakhtunkhwa, Pakistan, addressing these concerns and shedding light on the implications of AI integration in academic settings.

The study recognizes a crucial gap in existing literature, where limited research has been conducted on the specific negative influences of ChatGPT on students' academic writing skills. While AI integration in education has been explored broadly, the nuanced challenges associated with ChatGPT's impact on creativity, critical thinking, and originality remain understudied. This research endeavors to bridge this gap by providing concrete evidence and valuable findings through a rigorous research methodology and the analysis of student writing samples.

The novelty contribution of this research lies in its focused exploration of the detrimental effects of ChatGPT, specifically within the context of Malakand University, District Dir Lower, Khyber Pakhtunkhwa, Pakistan. By narrowing the scope to a specific region and university, the study adds granularity to the understanding of the local

dynamics and challenges faced by students in this particular context. This localized perspective enhances the applicability and relevance of the findings for educators, policymakers, and students within this region.

In the broader context of Artificial Intelligence (AI) and Intellectual Deterioration, the study assumes paramount importance. The integration of AI tools like ChatGPT in academic settings necessitates a nuanced understanding of their impact on students' intellectual development. This research addresses this imperative by investigating the negative influences of ChatGPT on academic writing skills and performance, specifically in the unique educational landscape of District Dir Lower, Pakistan.

The study highlights the critical need to strike a balance between AI utilization and the cultivation of independent thought processes in academic writing. By recognizing the potential risks associated with overreliance on ChatGPT, the research emphasizes the importance of fostering creativity, critical thinking, and originality in students. Moreover, the findings of the study hold significance for educators and policymakers in designing guidelines and frameworks that promote a mindful integration of AI in educational settings.

In conclusion, this research significantly contributes to the expanding body of knowledge on the impact of AI, particularly ChatGPT, on students' academic writing skills and performance. Its focused exploration, methodological rigor, and localized perspective make it a valuable resource for addressing the challenges posed by AI integration in academic settings, with implications reaching beyond District Dir Lower, Pakistan.

## 2. Literature Review

The integration of Artificial Intelligence (AI) into educational settings has witnessed a paradigm shift in recent years, with AI-powered writing assistants such as ChatGPT playing a prominent role in transforming the landscape of academic writing (Baidoo-Anu & Owusu Ansah, 2023; Shidiq, 2023). As we delve into the specific context of university students in District Dir Lower, Pakistan, this literature review examines existing studies and empirical evidence to comprehensively understand the impact of ChatGPT on students' academic writing skills and performance.

Several studies have highlighted concerns regarding the overreliance on AI-generated content, particularly ChatGPT, and its potential repercussions on critical thinking and creativity among students (Ningrum, 2023; Sok & Heng, 2023). Jürgen Rudolph, Samson Tan, and Shannon Tan (2023a) emphasizes that the availability of ready-made suggestions from ChatGPT may discourage independent thought and originality, resulting in formulaic and unoriginal academic work. The automated nature of ChatGPT further contributes to a dependency on the tool for grammar corrections and structural improvements, hindering students' ability to identify and correct errors independently (A El-Seoud, Ayman, Nagaty, & H Karam, 2023; Rospigliosi, 2023)

Research studies indicate a consistent trend wherein the extensive use of ChatGPT is associated with a decline in students' writing skills and creativity (Harunasari, 2022). Crawford et al. (2023) argue that overdependence on AI language models, like ChatGPT, erodes critical thinking and stifles creativity, leading to formulaic and unoriginal academic work. Imran and Almusharraf (2023) add that the exclusive reliance on AI-generated content may hinder the development of students' unique writing styles and creative thinking abilities (Helberger & Diakopoulos, 2023).

The literature emphasizes that overreliance on ChatGPT may hinder students' intellectual growth by impeding critical thinking and fostering dependency (Yu, 2023). Jaiswal (2023) argue that writing, as a skill, requires consistent practice, and an exclusive dependence on AI language models prevents students from honing their writing skills through practice, revision, and feedback (Karthikeyan, 2023). The automated nature of ChatGPT may lead to a passive learning mindset, hindering students' active engagement in the writing process (Dahmen et al., 2023).

Excessive reliance on ChatGPT has been linked to a decline in critical thinking among students (Jürgen Rudolph, Shannon Tan, & Samson Tan, 2023b). The automated nature of AI-generated responses may impede students' ability to critically evaluate information, conduct research, and construct well-reasoned arguments (Martin, 2023). The instant access to pre-packaged suggestions may lead to a superficial understanding of the subject matter, reducing active engagement with complex ideas (Rasul et al., 2023).

The literature also underscores the risk of unintentional plagiarism associated with the extensive use of AI language models (Cotton, Cotton, & Shipway, 2023). Students may struggle to distinguish between their original ideas and those generated by the AI model, leading to improper attribution or the omission of proper references (Dergaa, Chamari, Zmijewski, & Saad, 2023; Rudolph et al., 2023a).

Evidence suggests that overreliance on ChatGPT can negatively impact students' linguistic proficiency (Ali, Shamsan, Hezam, & Mohammed, 2023). The model's language generation based on statistical patterns risks

students adopting incorrect grammar and syntax, while limiting exposure to authentic language use (Wu & Yu, 2023)

The existing literature consistently points towards the potential negative impact of ChatGPT on students' academic writing skills and performance. Overreliance on AI-generated content may lead to a decline in critical thinking, creativity, and originality. The risk of unintentional plagiarism and the potential detriment to linguistic proficiency further highlight the need for a balanced approach in utilizing AI tools like ChatGPT in educational settings.

### **3. Methodology**

#### **3.1 Research Design**

Employing a qualitative cross-sectional research design, this study delves into the nuanced negative impacts of ChatGPT on students' academic writing skills and performance. By focusing on students' experiences and perceptions, the design enables a thorough exploration. This approach is grounded in prior empirical evidence that emphasizes the importance of understanding user perspectives to evaluate the true impact of AI tools on educational outcomes, ensuring a logical and justifiable methodology (DiCicco-Bloom & Crabtree, 2006).

#### **3.2 Universe/Area**

The research is strategically conducted at Malakand University in District Dir Lower, Khyber Pakhtunkhwa, Pakistan. This choice stems from the researcher's affiliation with the university, ensuring access and cooperation. Malakand University's diverse academic departments offer an ideal setting for investigating the influence of ChatGPT on students' writing skills and performance. This selection is logical, as it provides a convenient and comprehensive environment for data collection, enhancing the study's relevance and applicability.

#### **3.3 Participants**

The study employs purposive-cum-convenient sampling to select 29 participants, one from each department at Malakand University. Following Guest, Namey, and Chen (2020) the focus is on 8th-semester students engaged in project, thesis, and report writing, extensively using ChatGPT. This intentional selection ensures representation across departments and targets a cohort deeply immersed in academic writing tasks, providing a focused perspective on the specific impact of ChatGPT on their writing skills and academic performance.

#### **3.4 Data Collection Methods**

In employing in-depth interviews and focus group discussions, this study utilizes well-established qualitative methods to comprehensively explore the impact of ChatGPT on students' writing skills and academic performance. The individual interviews offer a detailed examination of personal experiences, ensuring depth in understanding. Focus group discussions, a proven approach in qualitative research, encourage interactive discourse, unveiling shared themes and challenges among ChatGPT users. The qualitative validity and reliability of the tools are reinforced through their alignment with established interview and focus group methodologies, as evidenced in studies examining AI's impact on academic writing skills (Hesse-Biber & Leavy, 2010).

#### **3.5 Data Analysis**

Qualitative data is rigorously analyzed through transcriptions and thematic analysis to identify patterns and key ideas regarding ChatGPT's negative impact on academic writing skills and performance (Braun & Clarke, 2012). This approach aligns with established qualitative research practices, bolstering the credibility of the study's outcomes (Bryman, 2016).

#### **3.6 Ethical Considerations**

Ethical guidelines are strictly followed, including obtaining informed consent from participants, ensuring privacy and confidentiality, and seeking ethical approval. The ethical considerations are paramount throughout the research process.

#### **3.7 Limitations and its Mitigations**

The qualitative research design, while offering in-depth insights, may limit generalizability due to the specific context and sample size. Mitigating this, the study focuses on thorough exploration within the chosen setting, emphasizing depth over breadth. Ethical guidelines, including consent and confidentiality, address potential

concerns. Despite limitations, the study's nuanced approach contributes valuable insights into ChatGPT's impact on academic writing skills and performance at Malakand University.

#### 4. Results and Discussions

The qualitative data collected through interviews and focus group discussions is transcribed verbatim and subjected to meticulous thematic analysis. This rigorous approach reveals patterns, recurring themes, and key ideas concerning the negative influences of ChatGPT on students' academic writing skills and performance.

##### The Impact of AI Language Models on Students' Writing Skills

The utilization of AI language models, such as ChatGPT, in educational settings has sparked concerns about their impact on students' writing abilities. While these models offer potential benefits, their misapplication or overreliance can lead to detrimental consequences for students' writing skills (Ali et al., 2023; Bozkurt et al., 2023). The impact of AI language models on writing abilities varies depending on their usage and individual approach.

Respondents in the study emphasized that ChatGPT's responses are based on existing data and patterns. If students consistently model their writing style after the AI-generated content, their personal voice may be diluted. Writing becomes less authentic and lacks the individuality that makes it compelling. One student from the Sociology Department shared their perspective, stating:

*"I rely solely on ChatGPT for content generation, I may miss out on the iterative nature of the writing process, which is essential for skill development and improvement."*

Active participation in the writing process fosters critical thinking, self-reflection, and the refinement of ideas, all of which contribute to the enhancement of writing skills. Unfortunately, many respondents noted that overreliance on AI-generated content discourages students from actively engaging in these iterative stages, which are crucial for refining their academic writing abilities (Alafnan, Dishari, Jovic, & Lomidze, 2023; Dwivedi et al., 2023). Students may be tempted to mimic the AI-generated content, resulting in a lack of authenticity and individuality in their academic writing. A student from the Psychology Department further emphasized this, stating:

*"The convenience of AI-generated content may discourage students from fully engaging in the writing process. They might bypass essential stages such as prewriting, outlining, and revising, leading to less coherence, poor organization, and increased errors. They become more focused on the end product rather than the iterative nature of writing that fosters growth and improvement."*

These findings highlight the need for a balanced approach to AI language models in academic writing. While they can provide valuable assistance, students should be encouraged to actively participate in the writing process, incorporating critical thinking and reflection to develop their own unique writing style.

##### The Impact of AI Language Models on Creativity and Originality in Academic Writing

Qualitative thematic analysis reveals that the use of ChatGPT and similar AI language models has raised significant concerns regarding students' creativity and originality in academic writing (Baskara, 2023). The findings from different departments, including Economics, Literature and Linguistics, Social Work, and Political Science, emphasize the potential negative impact of relying heavily on AI-generated content. The Students of Economics Department express concerns that:

*"Over-reliance on ChatGPT may result in written work lacking originality, creativity, and a distinct personal voice. The AI-generated responses, although coherent and well-formed, are seen as lacking the unique perspectives, insights, and nuanced arguments that reflect students' individual thoughts and ideas. This deficiency can lead to a loss of authenticity and hinder intellectual growth."*

The respondents recommend that AI language models provide pre-generated responses based on existing patterns and data. However, heavy reliance on these models can contribute to a lack of creativity, originality, and a unique voice in students' academic writing. The tendency to replicate AI-generated content and the homogenization of writing styles undermine students' ability to express their own thoughts, perspectives, and innovative ideas. This limitation poses a challenge to the development of nuanced and original arguments (Imran & Almusharraf, 2023; Qasem, 2023).

Students from the Literature and Linguistics Department further elaborate on the limitations posed by AI language models. These models provide responses based on known patterns, potentially restricting students' exposure to diverse viewpoints. Consequently, students may become inclined to replicate AI-generated responses rather than engaging in independent exploration and critical analysis of various perspectives. This restriction impedes the

development of nuanced and original arguments, hindering students' ability to present diverse viewpoints effectively. Moreover, some students argue that AI language models lack the personal experiences, insights, and individual voice that make writing authentic and distinctive. Excessive reliance on ChatGPT may overshadow students' own personal voice, resulting in writing that lacks a unique and genuine tone (Shoufan, 2023). This undermines the individuality and creativity of their work, which are essential elements of academic writing. Students from the Social Work Department highlight that:

*“Creativity often involves taking risks, exploring unconventional ideas, and pushing boundaries. Heavy reliance on AI language models can create a sense of safety and conformity, inhibiting students' willingness to take risks and experiment with new approaches. This inhibition stifles the development of innovative and imaginative thinking in their writing”.*

The qualitative thematic analysis also highlights the potential negative impact on creativity and originality resulting from ChatGPT's reliance on patterns in the training data. This reliance may lead to generic and predictable answers, reducing students' inclination to think creatively or develop unique perspectives. Students may become accustomed to conforming to the patterns and suggestions offered by the AI model, inhibiting their ability to explore unique and unconventional ideas (Shidiq, 2023; Yan, 2023). Additionally, AI-generated content may inadvertently restrict students' inclination to explore diverse perspectives and engage in independent ideation. Heavy reliance on ChatGPT can inadvertently limit students' exposure to new ideas and alternative viewpoints, resulting in a narrowed scope of originality in their writing. The use of AI language models may discourage students from taking creative risks and exploring innovative approaches to their writing. Students may feel more inclined to conform to AI-generated suggestions rather than experimenting with unconventional ideas or unconventional writing styles. This inhibition ultimately stifles their ability to push the boundaries of creativity and originality.

In summary, the qualitative thematic analysis supports the concerns raised by students from various departments regarding the potential negative impact of ChatGPT and similar AI language models on students' creativity and originality in academic writing. The reliance on pre-generated responses based on existing patterns and data can limit students' ability to develop their own unique perspectives, authentic voice, and creative thinking. It can also hinder the exploration of diverse viewpoints and the generation of innovative ideas.

*Examining the Impact of Overreliance on AI Language Models: Implications for Critical Thinking in Academic Writing and Research*

*Overreliance on AI language models, such as ChatGPT, for content generation can have a detrimental effect on students' engagement in critical thinking across different academic disciplines (Hasanein & Sobaih, 2023). Students from various departments express concerns about the limitations of relying heavily on ChatGPT and its impact on their ability to develop independent thought, critical analysis, and evidence-based reasoning skills. For instance, students from the Pharmacy Department highlight:*

*“The risk of developing a superficial understanding of the subject matter when heavily relying on AI language models. They note that instead of actively engaging with the material, students may focus solely on extracting pre-generated responses from ChatGPT. This passive approach hinders the development of critical thinking skills, as students may not deeply analyze and evaluate the complexities of the topic at hand”.*

*Similarly, students from different departments also reveal that relying heavily on ChatGPT can diminish critical thinking abilities. Students may adopt a passive approach, regurgitating AI-generated responses without deeply understanding or analyzing the underlying concepts. This lack of active engagement with the subject matter hinders their ability to develop well-reasoned arguments and engage with complex ideas (Guo, Zhong, Li, & Chu, 2023; Yu, 2023). Furthermore, this overreliance may cause students to neglect crucial skills such as evaluating sources, identifying credible references, and synthesizing information from multiple perspectives, leading to shallow and less credible academic writing.*

*Moreover, students from the Information Technology Department point out that:*

*“ChatGPT's instantaneous responses provide immediate gratification, which can discourage students from engaging in deep analysis and contemplation. The availability of quick answers may lead students to settle for surface-level understanding, inhibiting the development of critical thinking skills necessary for analyzing complex technological issues effectively”.*

*Furthermore, students from the Physics Department emphasize the importance of critical thinking and analytical skills, which are honed through practice and independent exploration. Relying heavily on ChatGPT for answers may diminish opportunities for students to develop these skills and hinder their ability to solve problems*

*independently (Heston & Khun, 2023).*

*In the context of qualitative research, the limitations of AI language models like ChatGPT become even more evident. Students from different departments express concerns about ChatGPT's lack of true understanding of context, emotions, and subtleties (Malinka et al., 2023). This limitation hinders students' ability to comprehend complex concepts fully, thereby impeding the development of critical thinking skills necessary for qualitative research.*

*Harmonizing AI's Potential in Education: Cultivating Intellectual Excellence Amidst ChatGPT's Influence*

The advent of AI and language models like ChatGPT has indeed revolutionized education, providing students with unparalleled access to vast amounts of information. However, there is a growing concern that these technologies may inadvertently undermine students' intellectual power (Sullivan, Kelly, & McLaughlan, 2023). One Botany student highlights that:

*“Genuine intellectual growth thrives through deep learning—actively engaging with complex ideas, grappling with uncertainties, and synthesizing new knowledge. The convenience of ChatGPT's instant answers can tempt students to neglect the pursuit of deeper understanding, hindering the development of their intellectual prowess”.*

Similarly, a common observation among respondents is the fundamental importance of cultivating independent thinking. While ChatGPT offers rapid answers based on existing patterns, there is a risk that it could inadvertently discourage students from developing their own unique perspectives. As future scholars and professionals, students should be encouraged to think critically and form their own original ideas, which is integral to intellectual empowerment. Moreover, critical analysis is rightly identified as a cornerstone of intellectual power. The ability to rigorously evaluate information and distinguish fact from opinion is crucial for intellectual growth (Shoufan, 2023). However, over-reliance on ChatGPT may undermine this skill, as the model generates responses without genuine comprehension or critical evaluation. To nurture true intellectual power, students must be encouraged to engage in independent research, analyze diverse sources, and develop their analytical acumen (Bin-Nashwan, Sadallah, & Bouteraa, 2023). The significance of intellectual curiosity is emphasized by a respondent from the Islamic Studies Department:

*“As it drives the thirst for knowledge and fuels intellectual growth. While ChatGPT provides instant answers, it must not replace students' intrinsic motivation to explore and question. Educators should design learning experiences that spark curiosity and inspire students to delve deeper into subjects, seeking answers beyond the readily available ones”.*

In conclusion, while AI and language models like ChatGPT offer unprecedented opportunities for learning, they must be approached with caution to preserve students' intellectual power. By prioritizing deep learning, independent thinking, critical analysis, and intellectual curiosity, educators can ensure that these technologies enhance rather than diminish intellectual growth.

#### **4.1 ChatGPT & Student Reading Habits: Balancing Convenience & Curiosity**

The advent of AI and language models like ChatGPT has revolutionized the way students access information and engage with texts. While these technologies offer convenience and efficiency, there is a growing concern about their potential negative impact on students' reading habits and intellectual development (Van Wyk, Adarkwah, & Amponsah, 2023). In the connection Student of Biotechnology Department describes that:

*“Active reading involves deep engagement with texts, critical analysis, and connecting ideas. However, ChatGPT's instant answers may inadvertently lead students to passively consume information without actively reading and comprehending the text themselves. This hampers the development of critical reading skills necessary for profound understanding and nuanced interpretations”.*

Similarly, most of the students argues that ChatGPT's quick responses may foster a desire for instant gratification, leading to a decrease in attention span for longer and complex texts. Students might prefer shorter, fragmented information, overlooking the benefits of sustained focus during reading. One potential effect of ChatGPT is that it provides instant answers to questions, reducing the need for students to actively engage in reading and research. Students might become reliant on the model's quick responses, leading to a decline in the habit of reading and analyzing information from various sources (Maboloc, 2023; Waltzer, Cox, & Heyman, 2023). One student from Chemistry Department highlights that:

*“A diverse reading habit enriches students' perspectives and language skills. However,*

*overreliance on ChatGPT's answers might limit exposure to a narrow range of information, hindering the exploration of varied literature”.*

Respondents argue that reading promotes critical thinking, analyzing arguments, and interpreting complex ideas. Yet, ChatGPT's answers lack genuine comprehension and critical evaluation, potentially discouraging students from developing their own analytical skills (Jaiswal, 2023). Reading encourages imaginative faculties, allowing students to visualize characters and settings. ChatGPT's transactional nature may hinder the development of imagination and creativity.

In conclusion, while ChatGPT and AI technologies offer valuable benefits in accessing information, their potential impact on students' reading habits requires careful consideration. The convenience of instant answers may inadvertently lead to passive consumption and a decline in active reading practices, diminishing critical analysis, sustained focus, and exposure to diverse literature. Furthermore, the transactional nature of ChatGPT may hinder the development of imagination and creativity during reading.

## **4.2 Balancing the Benefits and Challenges of AI in Education: Nurturing Critical Thinking and Independence**

ChatGPT and similar AI technologies have undoubtedly transformed the way students access information and interact with written content. The convenience and accuracy of AI-generated responses have made it a valuable tool for learning and research. However, there are growing concerns about potential negative impacts on students' intellectual development (Martin, 2023). One primary concern is the risk of students becoming overly dependent on AI-generated content, leading to a decline in critical thinking and creativity (Pavlik, 2023). Similarly, respondent from Zoology Department express that:

*“With instant access to answers, students may be tempted to rely solely on ChatGPT, bypassing the need for independent research and exploration. This ease of obtaining quick solutions can hinder their motivation to engage deeply with topics and inhibit the development of analytical skills”.*

Most of the respondents argues that, relying heavily on ChatGPT may erode students' self-reliance and confidence in their problem-solving abilities. Constantly seeking answers from an external source can foster a sense of learned helplessness, where students feel incapable of finding solutions on their own. As a result, their capacity for independent thought and decision-making may suffer, limiting their intellectual growth and autonomy. Furthermore, another respondent from Tourism Department explicates that:

*“Another critical concern is the potential impact on students' information literacy skills. As AI-generated responses are based on patterns in data without genuine comprehension or critical evaluation, students may struggle to assess the credibility and reliability of sources used by the model. This limitation can lead to the inadvertent incorporation of erroneous or biased information in their work, compromising academic integrity”.*

Additionally, the reliance on ChatGPT may stifle students' creativity and originality in their writing. Adopting the model's language and ideas could hinder the development of their unique voice and perspective, restricting their ability to express thoughts and insights authentically (Kostka & Toncelli, 2023). Furthermore, respondent from Sociology Department explain that:

*“Constant dependence on ChatGPT can foster a passive learning mindset, where students perceive writing as a transactional activity rather than an opportunity for active engagement and critical thinking”.*

In conclusion, while ChatGPT and similar AI technologies offer valuable benefits in accessing information, it is essential to consider their potential impact on students' intellectual development. Encouraging a balanced approach that combines technology with the cultivation of essential skills can help mitigate the negative effects.

### **AI Language Models and Plagiarism: Navigating the Challenges in Education**

ChatGPT, as an AI language model, has the potential to inadvertently contribute to plagiarism among students. ChatGPT's ability to generate coherent responses may lead students to rely excessively on the model for content creation. This reliance can result in students directly copying or paraphrasing the model's responses without proper attribution or original thought (Dempere, Modugu, Hesham, & Ramasamy, 2023). Similarly, respondent from software Engineering Department argue that:

*“When students rely heavily on ChatGPT for information, they may not fully comprehend the concepts presented. This lack of critical analysis and understanding of the material can hinder*

*their ability to integrate the information effectively into their work, potentially leading to unintentional plagiarism”.*

Most of the participants from various department demonstrate that ChatGPT's responses are based on patterns from various sources, making it challenging for students to distinguish between their original ideas and those generated by the model (Elarde, Bruster, & Bruster). This ambiguity can lead to improper attribution or the omission of proper references. Student of the Chemistry Department view that:

*“Depending on ChatGPT for content creation may prevent students from developing proper citation and referencing skills. As a result, they might fail to attribute the contributions of original authors accurately, increasing the risk of unintentional plagiarism.”*

In conclusion, while AI language models like ChatGPT offer valuable benefits in accessing information, there are legitimate concerns about their potential impact on students' academic integrity.

### **4.3 ChatGPT's Impact on Linguistic Proficiency in Education**

ChatGPT's potential negative impact on students' linguistic proficiency arises from several factors. The model's language generation is based on statistical patterns, which may not strictly adhere to linguistic rules. This could lead students to unknowingly adopt incorrect grammar and syntax (Kostka & Toncelli, 2023). Likewise, respondent from Literature and Linguistics Department view that:

*“Relying on ChatGPT can limit students' exposure to authentic language use, as the model lacks true understanding of nuances and context. As a result, students might miss out on colloquialisms, idiomatic expressions, and cultural nuances crucial for true linguistic proficiency”.*

Additionally, respondents argue that constant dependence on the model may reduce students' active language production, as they become reliant on ready-made responses instead of formulating their own sentences (Mikeladze). This lack of practice and feedback can cause their language skills to stagnate or deteriorate over time. Furthermore, Respondent from Social Work Department reviews that:

*“An overreliance on automated language assistance can create dependency, impeding students' motivation to develop their own linguistic abilities and hindering their growth as autonomous language users”.*

In conclusion, ChatGPT's language generation based on statistical patterns risks students adopting incorrect grammar and syntax, while overreliance on the model limits exposure to authentic language use, hindering the development of colloquialisms and idiomatic expressions. This constant dependence can hamper active language production, impeding students' linguistic skill growth and motivation for independent language development.

## **5. Conclusion**

The utilization of AI language models, such as ChatGPT, has sparked concerns about their potential negative impact on students' writing abilities. Through qualitative thematic analysis, this study delved into the experiences and perceptions of students from various departments, shedding light on the challenges students face when utilizing ChatGPT and its impact on their writing abilities.

One prominent concern highlighted by respondents was the risk of students diluting their personal voice and authenticity in writing. As ChatGPT's responses are based on existing data and patterns, students who consistently model their writing style after the AI-generated content may inadvertently lose their individuality. The absence of critical engagement with the writing process was evident as students bypassed essential stages such as prewriting, outlining, and revising. This tendency to prioritize the product over the iterative nature of writing hindered their skill development and improvement.

Overreliance on AI-generated content was found to diminish students' active language production, leading them to become reliant on ready-made responses instead of formulating their own sentences. As a result, students' language skills stagnated or even deteriorated over time. Moreover, the transactional nature of ChatGPT may have contributed to a sense of learned helplessness among students, where they felt incapable of finding solutions independently.

The study also revealed concerns about the impact of ChatGPT on students' creativity and originality in academic writing. Relying heavily on AI language models led to written work lacking uniqueness, personal voice, and nuanced arguments. Students tended to replicate AI-generated content, restricting their exploration of diverse perspectives, and hindering the development of innovative ideas. Consequently, creativity and imaginative thinking

were stifled.

Another significant issue raised was the potential adverse effect on students' critical thinking skills. Heavy reliance on ChatGPT's instant answers encouraged a passive learning mindset, where students perceived writing as a transactional activity rather than an opportunity for active engagement. The model's inability to genuinely comprehend context and critically evaluate information may have hindered the development of analytical skills necessary for qualitative research.

Furthermore, the use of AI language models can inadvertently contribute to plagiarism among students. The ease of obtaining coherent responses from ChatGPT led to some students directly copying or paraphrasing the model's content without proper attribution or original thought. This raised concerns about students' ability to integrate information effectively into their work, potentially leading to unintentional plagiarism.

### 5.1 Recommendations

To address the impact of AI language models, such as ChatGPT, on students' academic skills, recommendations include promoting authenticity in writing by encouraging active student participation and discouraging overreliance on AI-generated content. Fostering creativity and originality involves emphasizing independent exploration and critical analysis. Cultivating critical thinking skills prioritizes active engagement, evidence-based reasoning, and source evaluation. To preserve intellectual excellence, deep learning and intrinsic motivation should be prioritized. Balancing convenience and curiosity in reading habits involves promoting active reading and comprehension while maintaining a balance with technology use. Nurturing critical thinking in education requires mitigating overreliance on AI by encouraging independent research and analysis. Addressing AI and plagiarism challenges involves promoting responsible AI use and instilling proper attribution and citation practices. Finally, enhancing linguistic proficiency entails providing language learning opportunities beyond AI models, emphasizing authentic language use and context for effective skill development.

### 5.2 Gap and Future Voices

Future research in this area should explore the long-term effects of AI language models on students' academic writing skills and their overall educational journey. Investigating the impact of AI assistance on various academic disciplines and different educational levels could provide a comprehensive understanding of its implications. Additionally, exploring effective pedagogical approaches to integrate AI technology into the curriculum without compromising critical thinking, creativity, and linguistic proficiency is essential. Researchers can also delve into students' perceptions and attitudes towards AI language models to better understand their motivations and concerns when utilizing such technologies. Addressing the gap in the literature through empirical studies and longitudinal research would contribute to a more nuanced understanding of the evolving relationship between students and AI in education. Moreover, investigating the role of educators in guiding students' use of AI language models and fostering a balanced approach to technology integration can be a valuable avenue for future research. Overall, bridging the gap in knowledge through rigorous investigation will assist educators and policymakers in creating informed strategies that harness the potential benefits of AI language models while preserving the core elements of students' academic growth, critical thinking, creativity, and linguistic proficiency.

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