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THE IMPACT OF AI TOOLS ON ENGLISH WRITING SKILLS OF SECONDARY SCHOOL STUDENTS OF MIANWALI DISTRICT

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Abstract

This study investigates the impact of AI-powered writing tools (ChatGPT, Grammarly, QuillBot, and Google Translate) on the English writing proficiency, psychological reliance, and critical thinking skills of secondary school students in the semi-urban Mianwali District, Pakistan. Employing a mixed-methods explanatory sequential design, the research gathered quantitative data from 100 Grade 9 and 10 students at private schools through writing assessments (manual vs. AI-assisted) and surveys, followed by qualitative semi-structured interviews with 15 students and 5 English teachers. The findings reveal a "Digital Leapfrog" effect, where students bypass foundational digital literacy for advanced generative AI. Quantitatively, AI usage significantly improved mechanical writing metrics, including grammar and academic vocabulary. However, qualitative triangulations uncovered an "illusion of competence"; these improvements were largely superficial and passive. Psychologically, the study identified a motivation paradox: while engagement in writing tasks increased, intrinsic motivation and independent self-efficacy plummeted. High AI dependency fostered "Imposter Syndrome" among students, who recognized their actual abilities lagged behind their AI-generated outputs. Furthermore, AI interventions caused a severe decline in originality and critical thinking, leading to a "Standardization Trap" characterized by generic, context-blind essays devoid of the students' authentic voices. Rooted in Vygotsky's Zone of Proximal Development and Bandura's Social Cognitive Theory, this research concludes that unregulated AI use acts as a cognitive crutch rather than a pedagogical scaffold. The study recommends shifting to process-oriented assessments, implementing the "AI-Sandwich" pedagogical method, and integrating digital literacy into the curriculum to foster authentic learning in AI-integrated classrooms.

Introduction

The twenty-first century educational environment is experiencing a tectonic plate change, as the Fourth Industrial Revolution takes place, alongside the application of the Artificial Intelligence (AI) to everyday activities more than ever before (Kommers & Smyrnova Trybulska, 2025). Pakistan being a developing country is in a special junction in this digital age. The adoption of digital technology, especially smartphones and mobile data, has been extensive and very fast (Yaseen & Phattanasin, 2025). In particular, the introduction of Generative AI (GenAI) and sophisticated Natural Language Processing (NLP) applications has substantially changed the ways of content production, understanding, and editing (Singh et al., 2025). The global education system is torn between a two-fold truth: on the one hand, there is huge potential of the AI in democratizing the personalized tutoring process; on the other hand, there is the threat of undermining the cognitive and intellectual faculties to develop independently. The irony of Mianwali is that even at a time when a classroom might be in a state of simple-minded primitive multimedia, the students inside it might be carrying a potent AI in their pockets (Riaz, 2021). The paper exists in the center of this conflict and addresses the question on whether the infusion of AI into the English writing classrooms of Mianwali is the gateway to competency or the impediment to authentic learning.

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The swift development of AI has captured the most prominent place on the front line of development across many fields, including education to be on the forefront of this change. According to Jiali et al. (2025) in their review, admitted AI's potential to revolutionize the old methods by the new adaptive learning system, digital assessment tools and intelligent tutoring system (ITS). In language learning where specific error pattern and individual speed calls for intervention and timely prompt feedback that AI provided which traditional classroom is unable to provide. Al-Smadi et al. (2024), through semi-structured interviews with 18 English teachers found positive and favourable evaluations of AI highlighting bridging the educational gap, improving all skills, increasing students' involvement and motivation, empowering educationists, and promoting self-directed learning.

The impact of AI tools on the different aspects of writing has been the subject of many studies. Ziar (2025) examined the influence of AI writing assistants like Grammarly, QuillBot, and GPT- based tools on 100 English Language and literature students at Kabul University and found the facts that students benefitted from these tools regarding grammar and productivity, although there were also issues noted about overdependence. A quantitative design with 160 Vietnamese university students was used by Nguyen Thuy Van (2025) in which he examined the impact of various AI tools (ChatGPT, Grammarly, Quillbot) on English writing skill. This highlights that only using AI is not sufficient, proper pedagogy of integration and regular interaction are important for vital improvement.

There has been constant research on AI and its role in education in Pakistani perspective and that has been adding to the knowledge of study. Shahid et al. (2024) found the effectiveness English Language Learning among undergraduate students who are using AI in Pakistan. Taj and Khan (2024) compared Grammarly and ChatGPT for automated writing evaluation among ESL students in Pakistan, indicating that how these automated programs are improving the performance and enhance the writing performance through self-efficacy. Ahmed et al. (2024) also testified this and showed a prominent positive effect of AI-based writing assistants on the writing proficiency of university instructors in Pakistan. This is an age of AI and there are very interesting methods of teaching which can enhance the autonomy of learners (Usman et al., 2025).

Despite its advantages, the amalgamation of AI into education is not without challenges and ethical consideration. A significant body of knowledge has pointed out the limitations of AI as over-dependence, dearth of critical thinking, challenges of academic honesty and limitations that are technological. Irshad et al. (2023) investigated the influence of Ai on human loss in decision-making and inactivity in education that points out to the apprehension of elimination of cognitive abilities. Aljabr et al. (2025) have vividly highlighted plagiarism and impact on the development of students' skills as main challenges underscoring the concerns related to academic honesty and over-dependence on tools like Chat GPT. The recent literature focuses on the university or college level students for study, creating a big gap if we talk about secondary school students who have various cognitive development, learning requirements and level of technological literacy.

Background of the Study

There is a history behind the invention of the writing assistant, which started in the 1960s and continues to this day. In the past, the only digital writing assistance available was simple spell-checkers and inflexible software to correct grammar built into word processors (Hussein, 2024). The past ten years have however seen a drastic development. The latest, most disruptive jump was with the development of Large Language Models (LLMs) such as ChatGPT. ChatGPT generates as opposed to correcting or paraphrasing its predecessors.

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English Language Teaching (ELT) in the context of Pakistan and more specifically in the secondary schools of Mianwali has become traditionally based on the Grammar-Translation Method (GTM) (Bano, 2025). Such pedagogical dependency on the end product as opposed to the writing process has made it vulnerable. AI tools are simply irresistible when one only needs to write text without any errors to please his teacher or get passed in an exam.

The key factor in the background to this study can be considered as the idea of the digital upgrade that happened in semi-urban areas, such as Mianwali. Most students in Mianwali have not only skipped desktops and laptops and tablets but have instead gone directly to mobile computing unlike other students in developed countries who went through these stages before graduating. The use of cheap 4G smartphones is so widespread that even the students of lower-middle-class families can enjoy the same powerful AI tools as students of elite institutions (Lythreatis et al., 2022). The physical impediment to information has disappeared but the pedagogical instruction on the use of that information is lacking. Students are accessing such tools as Google Translate and ChatGPT without the knowledge or oversight of their teachers, often in the out of school (Yu, 2024).

Statement of the Problem

This research examines the gap between the apparent and actual English writing ability of secondary school students in Mianwali. In private schools, assignments often appear linguistically strong, yet many students fail to write basic sentences when digital assistance is removed. This suggests that AI tools such as Grammarly, QuillBot, Google Translate, and ChatGPT are being used to correct writing rather than to develop language skills, improving the final product while weakening the learning process. Existing research on AI in education largely ignores secondary students in semi-urban areas like Mianwali, where language skills are still forming. This study aims to investigate whether AI is supporting genuine writing development or creating long-term dependence among secondary school students in Mianwali.

Research Objectives

1. To examine how AI-powered technologies (e.g., QuillBot, Grammarly, ChatGPT, Google Translate) affect the writing skill such as vocabulary, grammar, sentence structure and organization among the secondary school students of District Mianwali.
2. To address the issue of using AI-powered tools, their effects on student motivation, self-efficacy, engagement, and creativity in terms of English writing skills.

Significance of the Study

This research is important in pedagogical, policy, and social levels, and especially in the light of the particular socio-economic and educational context of the District Mianwali. Educators find themselves in a dilemma of being in two opposites, either they believe that AI is a cheating tool that should be prohibited, or they have simply not understood the phenomenon. This study provides teachers with the ability to make effective decisions by examining the real impact of these tools on the student writing process; do they aid in grammar acquisition or do they impair it? It confirms the necessity of the change in the teaching method, as, in the world of AI, the emphasis of teaching English will have to change to the accent on the product (the end essay, which in fact becomes a final one) to the process (ideation, drafting, and editing). Probably, most notably, this paper is dealing with a deep societal equity disparity.

Methodology

The approach in this study was the Mixed-Methods Research (MMR) approach. It is an Explanatory Sequential Design (QUAN) that was used in the study. The first stage was the quantitative data collection and analysis by means of surveys and controlled writing tests (Pre-test and Post-test). The second stage was semi-structured interviews of a subsample of students

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and teachers aimed at explaining the first phase results. The aim group of the study was made up of students of the Secondary School Certificate (SSC) level, in particular, 9th and 10th Grade (matriculation level) in any of the private secondary schools of the District Mianwali. Purposive Sampling that is non-probable sampling method was used in the study. The survey assessments and writing were done using a total of 100 students. This permitted the application of inferential statistics, that is Paired Sample T-Tests, to establish the distinction of the disparity between manual and AI-aided writing scores with certainty degree of 95%.

To achieve the reliability and validity of the data, the instrumentation strategy followed by this study was based on the Explanatory Sequential design. The main source of gathering demographic and psychological information was a questionnaire that is specially made to conduct the study. The questionnaire was separable into four different parts with the help of a 5-point Likert scale with the answers of Strongly Disagree (1), Strongly Agree (5). In order to objectively assess writing proficiency in the Pre-test (Manual) and Post-test (AI-Assisted) stages, the study also used a version of the ESL Composition Profile by Jacobs et al. (1981) adapted. The interview guide is based on a semi-structured interview, designed to be conducted with the 15 students and 5 English teachers. Data analysis of the collected data was performed with separate quantitative and qualitative data analysis techniques (incorporating SPSS version 27 for Descriptive and Inferential Statistics, Sub-Skill Analysis, and Correlation Analysis) and a triangulation stage was carried out to combine the results.

Data Analysis

The chapter reflects the outcomes of the data analysis in the survey done using the mixed-method methodology. The analysis provides a complete picture of the phenomenon based on the integration of quantitative results, based on the writing tests and surveys, and qualitative information obtained during the interview to understand the phenomenon in terms of the context of the private secondary schools in District Mianwali. When analyzing the data about the context of AI tools use, the demographic profile of the sample needs to be determined first. The participants of the study were 100 secondary school students of three different private schools in the Mianwali City (N=100). The sample was relatively balanced in terms of the gender representation, but was skewed towards male students, as it was representative of the enrolment pattern of the chosen co-educational institutions. The participants were also aged between 14 and 16 years that is, Grade 9 and Grade 10 (SSC Level).

Table 1

Demographic Profile of Respondents

Variable	Category	Frequency (*f*)	Percentage (%)
Gender	Male	58	58.0%
	Female	42	42.0%
Age	14 Years	22	22.0%
	15 Years	54	54.0%
	16 Years	24	24.0%
Grade Level	9th Grade	48	48.0%

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Variable	Category	Frequency (*f*)	Percentage (%)
	10th Grade	52	52.0%

One of the most important aspects of demographic analysis was the knowledge of the Digital Profile of the Mianwali student. The information in the survey reflected a clear mobile first environment. The mode of access was quite diverse, although 100 percent of the sampled individuals were users of AI. The overwhelming percentage of students use AI devices on smartphones, as opposed to desktops or laptops. This touch-with-a-thumb interaction affects their tool use, where they use apps that have fast "autocorrect" capabilities instead of full-fledged browers. The statistics show that the percentage of students who mainly use ChatGPT is 62, which can be explained by the fact that this tool has a generating feature that resolves the issue of a blank page, unlike Grammarly that needs other text to be corrected.

Table 2

Digital Access and Frequency of AI Usage

Variable	Category	Frequency (*f*)	Percentage (%)
Primary Device	Smartphone (Android/iOS)	86	86.0%
	Laptop / Desktop	11	11.0%
	Tablet	3	3.0%
Frequency of AI Use	Daily (Every Assignment)	45	45.0%
	Frequently (3-4 times/week)	30	30.0%
	Occasionally (1-2 times/week)	25	25.0%
Primary Tool Used	ChatGPT	62	62.0%
	Grammarly (Free Version)	20	20.0%
	QuillBot	12	12.0%
	Google Translate	6	6.0%

The experiment employed a Paired Sample T-Test to provide an answer to the comparison between the results of a group of students when completing the Task A (Manual Writing) and Task B (AI- Assisted Writing). The quantitative data prove statistically significant disparity between the independent writing capabilities of the students and their performance with the help of AI. In the cases of individual writing by the students, the average mark was reflective of the standard ESL problems in semi-urban Pakistani districts - subject-verb

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agreement, poor vocabulary and incoherence in the structure. With the introduction of AI tools, however, the scores became significantly better in all metrics.

Table 3

Paired Sample T-Test Results (Overall Writing Score) (Total Score out of 100)

Group	N	Mean (M)	Std. Deviation (SD)	t-value	df	Sig. (2-tailed)
Task A (Manual)	100	54.20	8.45	-18.62	99	.000
Task B (AI-Assisted)	100	78.65	5.20			

The average score in the manual task was found to be 54.20 whereas the average score in the AI assisted task was 78.65. The t-value of -18.62 with the p-value of.000 (p is below .05) would suggest that this increase is not accidental, the AI tool intervention has a tremendous, quantifiable effect on the quality of the ultimate written product. The Standard Deviation also became smaller (8.45 to 5.20) and this means that the AI tools can be considered a leveler of sorts, that is, they pull the poorer students to a better performance level and as a result, the level of variation in the performance of the classes declines. Nevertheless, this finding is complicated by the discussion of it. As the product was enhanced, the process was blurred. In the qualitative interviews, there were mixed emotions of teachers on this jump in scores. The AI is not simply helping; it is closing a proficiency gap that runs much greater than the one observed among native speakers of the English language.

The first and the most apparent effect of AI tools was seen in the sphere of grammar and sentence structure (Syntax). The rubric element of the item on Language use (grammar) (rated out of 25) revealed the best correlation with AI usage. The fact that there is a reduction in the error rate of 8.5 errors per 100 words to a low of 1 error per 100 words is impressive. The statistics indicates that such tools as the grammar-checking of ChatGPT and such applications as Grammarly have worked to remove superficial mistakes.

Table 4

Comparison of Grammar Sub-Scores

Condition	Mean Score (out of 25)	Common Error Frequency (per 100 words)
Manual Writing	12.4	8.5 errors
AI-Assisted Writing	21.8	0.9 errors

Passive Correction as a phenomenon was observed in the interviews. The majority of students who were admitted said that they accepted AI suggestions without going through the logic behind the grammar. The given behavior can be interpreted as indicating that among Mianwali students, AI-based tool is used as a Post-Production Editor, but not as Pedagogical Scaffold. The tool, in Vygotskian language, is completing the work on behalf of the learner as opposed to showing him or her through the ZPD. This implies that although AI is guaranteeing the submission of AI meeting the condition of a syntactic accuracy, it may not be promoting

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the condition of a syntactic acquisition to take place. The neatness of the grammar creates an illusion of the mastery of the English mechanics by the student.

A second significant area of linguistics that was examined was vocabulary. This domain was the most clearly marked with the fingerprint of AI usage, especially when it comes to the tools of QuillBot and the so-called ChatGPT. The Vocabulary part of the rubric (out of 20 points) increased significantly, although some clear exceptions were found during grading. Manual Score: Mean of 9.5/20. The language was practical yet and small, usually based on the repetition of adjectives (e.g. good, bad, nice). AI-Assisted Score: Mean of 17.2/20. The language used was developed, and the words were academic and of high frequency (e.g., “exemplary,” “detrimental,” plethora).

Table 5

Lexical Density and Variety Analysis

Metric	Manual Task	AI-Assisted Task
Lexical Variation (Type-Token Ratio)	0.42 (Low variety)	0.68 (High variety)
Average Word Length	4.1 characters	5.8 characters
Use of Academic Word List (AWL)	3% of total words	18% of total words

Although the numbers are encouraging, the qualitative analysis revealed that there is the matter of the Contextual Mismatch. Since the exposure to high level of academic English is minimal in the context of Mianwali, the sudden emergence of GRE level vocabulary in Grade 9 essays was a clear indication of AI use, namely, the Paraphrase feature of Quillbot. This is an important pointer to a serious discovery concerning the importance of Semantic Understanding. The AI tools are broadening the passive (source of words that students are aware of) vocabulary of the students but are employed to produce a false simulated active vocabulary (words used that are not present). The AI is adding a sophistication that is concealing the student lexical range. Students are learning to believe what the machine says, rather than what they are saying and the authentic voice is lost.

The last sub-skill that was discussed was the organization of writing- the way ideas are placed in logical order and interrelations. This is historically a poor point with secondary students in Mianwali who tend to write in a somewhat stream like style with no distinct paragraphs. The Organization score (maximum 20) was raised to a 16.8 meaning that it was already at 10.1. In Manual activities, there were strict transition signals, which were restricted to And, But and So. In works supported by AI, essays had advanced transitional expressions like “Furthermore,” “In contrast,” “Consequently,” and “On the other hand.” The review indicates that ChatGPT performs the role of a structural architect of students. Nonetheless, the evaluation of the component of the rubric titled Originality showed a decline in score. Manual Originality: 3.8/5. AI-Assisted Originality: 2.1/5. This negative correlation is important. As the organization was getting better, the essays were turning generic. They did not have the local background or anecdotes of their own which the manual essays had.

Whereas the objective linguistic changes were measured, the inner cognitive and emotional world of a learner was also explored. Within the framework of the District of Mianwali, where English is an indistinguishable trait of social position and future professional opportunities, such a psychological association between the student and the writing process is complicated. The quantitative data under this section was taken as the result of the question of the survey questionnaire to be analyzed with 5-point Likert-scale (1 = Strongly Disagree to 5

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= Strongly Agree). The descriptive statistics indicate a clear dichotomy in the student sentiment. The difference between the feeling of the students under the support of AI and their feeling about working independently is significant.

Table 6

Descriptive Statistics for Psychological Variables (N=100)

Variable	Survey Item	Mean (M)	Std. Dev (SD)	Interpretation
Motivation	"I find English writing assignments interesting when I use AI."	4.62	0.58	Very High Interest (Assisted)
	"I am motivated to learn grammar rules so I don't need help."	2.15	0.92	Low Intrinsic Motivation
Engagement	"I spend more time refining my essay when using AI tools."	3.85	1.10	Moderate-High Engagement
	"I complete assignments only to avoid punishment/get marks."	4.10	0.85	High Extrinsic Motivation
Self-Efficacy	"I feel confident submitting an essay checked by Grammarly/AI."	4.78	0.45	Very High Assisted Efficacy
	"I feel confident writing an essay in class without any devices."	2.05	0.78	Very Low Independent Efficacy
Anxiety	"I feel anxious/scared when I have to write English alone."	4.55	0.65	High Writing Anxiety

The statistics reflect a situation of motivation paradox. The average interest in AI-assisted assignments at 4.62 is an indication that technology is a hook. Mianwalis, where it is customary to consider English writing a tedious task, students become interested in the process that is mediated by technology. But the point of the low score of the desire to learn grammar rules of 2.15 means that it is performative and not pedagogic motivation. The significant mark of extrinsic motivation score, which is high, at an average of 4.10, affirms that the performance of these secondary students is mainly based on the acquisition and the compliance of grades, but not the acquisition of skills.

The worst discovery is the Efficacy Gap. The difference between the Assisted Efficacy, where the mean is 4.78 and independent Efficacy, where the mean is 2.05 is a very large difference of 2.73 points. ChatGPT makes students almost invincible. Their faith is in the

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production. In the absence of the tool, they remain crippled in terms of confidence. The overall mean of 2.05 means that they deeply do not believe in their own cognitive resources. This implies that whatever confidence teachers see in the submitted assignments is not part of themselves; it is completely projected onto the machine. A Pearson Coefficient of Correlation analysis was run to determine whether the use of AI heavily is helping to create confidence or destroy it.

Table 7

Pearson Correlation Matrix (Frequency of Use vs. Efficacy)

Variables	1. Frequency of AI Use	2. Assisted Self-Efficacy	3. Independent Self-Efficacy
1. Frequency of AI Use	1		
2. Assisted Self-Efficacy	.82**	1	
3. Independent Self-Efficacy	-.64**	-.35*	1

Note: Correlation is significant at the 0.01 level (2-tailed).

The correlation between frequency of use and Assisted Efficacy is very strong and positive ($r = .82$). The greater the use, the more confident the students are during the use of the tools. This shows an improvement of the user-tool bond. Most importantly, the frequency of use and Independent Self-Efficacy have a significant negative correlation ($r = -.64$). The more a student becomes accustomed to using AI on a daily basis, the less self-assured he/she will be when it comes to writing independently. This is a support of the hypothesis of atrophy of skills. The heavy users are not learning and leaving the tool but leaning and staying. It is not a scaffold (that is temporary), but a crutch (that is permanent).

Although the quantitative data verified a dramatic rise in the scores when the AI tools were used, it did not justify the internal processes and the motive behind the use. The most prevalent theme identified after the interviews with the students was the application of AI towards the realization of Lexical Upgrading. Among the academic culture in Mianwali secondary schools, there is a widespread feeling that complex vocabulary is equal to good English. Students showed an underlying insecurity with their own natural vocabulary, frequently referring to it as being too simple/childish. Such tools as QuillBot and the suggestion of synonyms option in Grammarly are not used to fix the mistakes, but to dress-up the language. The five English teacher interviews were a sharp contrast in narratives. The teachers complained of what they described as ”Artificial Perfection" or “Robotic Fluency, as they called it. They could see a startling difference between the unpolished and fragmented English that was used by the learners in the classroom and the smooth and perfect prose that was provided in the homework assignments.

The results indicate that it has a complicated interaction with the ZPD. In certain cases (around 15-20% according to the results of the interview), the AI does serve as a scaffold to a minority of students. Such students internalize when they observe a correction. In this respect, the AI assists the student to navigate the ZPD, which may increase his or her independent power in the long run. To most Mianwali students, however, the data is that AI is not assisting them to cross the ZPD, but rather to bypass it. The student that uses ChatGPT to write a complete

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paragraph is not working in their ZPD; the student is working outside of his or her cognitive engagement altogether. The ZPD necessitates conflict and contact. Modern AI tools are in the form of one-click fixes, thus, depriving the person of the productive struggle that leads to growth of the synapses. Thus, within the frame of the given research, AI is often serving as a cognitive prosthetic, but not as a pedagogical scaffold.

Although the result of the analysis showed that the scores associated with grammar and vocabulary increased dramatically, the quantitative analysis of the "Originality and Voice" element of the writing rubric shows a different and alarming trend in a different direction. This rubric out of 5 points evaluated individual point of view of the learner, an application of localized examples, and a clear writer voice.

Table 8

Comparison of Originality and Critical Thinking Scores (Scale: 0 - 5)

Rubric Component	Manual Task (Mean)	AI-Assisted Task (Mean)	Change (Δ)	Interpretation
Originality / Voice	3.42	1.95	-1.47	Significant decline in personal expression.
Critical Analysis	3.10	2.20	-0.90	Decline in argumentative depth.
Relevance of Examples	3.80	2.10	-1.70	Loss of local (Mianwali) context.
Coherence (Logic)	2.90	4.60	+1.70	Improvement in structural flow.

The information presented in the Table 9 shows what this paper calls the "Standardization Trap." In the Manual Task, the students had the mean of Originality of 3.42. They had bad grammar and original ideas. They shared their actual lives, playing cricket in the streets of Mianwali, the desert of Thal, or a wedding in the family. The score dropped to the lowest at the AI-Assisted Task to 1.95. The essays became generic. The algorithm sanitized the unique Mianwali voice. The most significant decrease was in the "Relevance of Examples" (-1.70). AI applications, which were trained on worldwide datasets, fell back to Western or generalized examples. Surprisingly, the scores in Coherence soared up by far (+1.70). The AI generates arguments that are logical to the maximum. Nevertheless, the decline of the "Critical Analysis" implies that this reasoning is borrowed. The students never (they are not) thinking; they are importing the thinking. The most important muscle, which is the possibility to come up with an argument, to evaluate evidence, to make a conclusion is aging out due to the fact that the AI offers the conclusion immediately.

Overall, the analysis demonstrates that the adoption of AI is nowadays unguarded and harmful to creativity. Large Language Models (LLMs) are based on predicting the next word that is most likely to occur (statistically). They are by definition attracted to the average or the norm. When the Mianwali students write with such tools, their writing is dragged towards a world average. The language peculiarities, localized metaphors, and the reasoning peculiar to the certain culture to represent the Pakistani English, are polished. Although it standardizes the output, it produces a Zombie culture of academia. Nonetheless, by making strategic changes,

i.e. shifting assessment to product to process and using AI as a Socratic tutor, one can enjoy the linguistic benefits and avoid the psychological dependency identified.

Conclusion

This study set out on a critical examination of the intersection between the upcoming technology and conventional learning in an emerging situation. The analysis of linguistic capabilities portrayed a drastic contrast on the frontier of the two; Process and Product. The application of AI tools led to a statistically significant increase in the writing scores quantitatively, but the qualitative result showed that this is mostly superficial and prosthetic. Students were found to exhibit the tendency of passive correction in which they used AI suggestions without awareness of the grammatical principles. The psychological investigation provided a complicated association amid the use of AI and student self-image. AI increases the size of Assisted Confidence, but at the same time, it diminishes the size of Organic Confidence, causing a psychological addiction that impairs students in the future when no help is provided. Lastly, the exploration of the concept of integration and critical thinking showed that the unregulated application of AI is causing a "Standardization Trap," substituting particular cultural examples with those which are more generic and westernized.

The educational AI is simultaneously a two-sided sword. The initial significant finding is AI in education is neither a panacea nor a poison, it is more of a powerful amplifier. The research finds that the present form of integration is harmful to critical thinking unless an active, systematic process by teachers occurs because students are delegating the mental task of thinking and organizing to the algorithm. The research has a certain conclusion to the semi-urban situation of the District Mianwali. AI is a paradoxical power; it is an enormous equalizer, making a student in a remote private school in Mianwali have the same amount of grammatical feedback as a student in an elite international school in Lahore, but conversely, it poses a threat of increasing the cognitive gap. There is a risk that the students of Mianwali will become the consumers of AI content instead of creators of this content. Educators in Mianwali do not have to struggle with the machine, they have to be able to teach the student to be human in a world with a machine.

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