

The Effect of an Online Writing Tool on the Writing Skills of Education Students at Mindanao State University–Lanao del Norte Agricultural College

Nezryne P. Perino, Jehan G. Naga, Feb Yvonney M. Matugas, MA, Socio, Settie-Zhymah S. Padate, MAFil, Najeb B. Aloyod, MAEd

College of Education Mindanao State University-Sultan Naga Dimaporo, Lanao del Norte, Philippines

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ABSTRACT

This study examined the effect of an online writing tool on the writing skills of education students at Mindanao State University–Lanao del Norte Agricultural College, addressing the limited research on the direct influence of such tools on students' writing ability. Specifically, it aimed to determine students' level of use of the tool, assess its perceived effects on writing skills, and test whether significant relationships exist between student profile variables and the tool's effects. A descriptive-correlational research design was employed, involving 50 purposively selected education students. Data were collected through a validated questionnaire and analyzed using frequency, percentage, weighted mean, and chi-square tests. Results showed that students reported a high level of use of the tool (grand mean = 3.26) and perceived it as highly effective in improving grammar, sentence construction, and overall writing performance (grand mean = 3.30). However, no significant relationships were found between students' profile variables (age, gender, year level, and program) and the effects of the tool ($p > 0.05$). The findings indicate that while the tool is widely used and perceived as beneficial, its effectiveness is consistent across different student groups. The study concludes that online writing tools can support writing development but should be used alongside the development of independent writing skills.

Keywords: education students; online writing tool; writing skills; writing improvement; writing technology

INTRODUCTION

Artificial Intelligence (AI) refers to the development of computer systems designed to perform tasks that typically require human intelligence, such as problem-solving, language understanding, and decision-making (Russell & Norvig, 2020). In the field of writing, AI applications can assist in grammar checking, content generation, and language improvement, making writing processes more efficient and accessible.

Grammarly, an AI-driven writing tool, exemplifies how artificial intelligence can enhance writing abilities. It offers real-time feedback on grammar, punctuation, spelling, and style, utilizing advanced algorithms to analyze text and suggest improvements. Grammarly not only detects basic errors but also provides advanced suggestions related to sentence structure, tone, and clarity, making it an essential tool for students and professionals alike (O'Neill & Russell, 2019; Soegiyarto et al., 2020). While it enhances writing quality and builds confidence, concerns about over-reliance on automated suggestions highlight the need for a balance between using such tools and developing independent writing skills (John & Woll, 2020).

In recent years, the integration of digital tools such as Grammarly has become increasingly prevalent in educational settings, particularly in improving writing skills among students. Grammarly, an AI-powered writing assistant, offers a range of features including grammar checks, style suggestions, and real-time feedback, all of which aim to enhance the quality of written work (O'Neill & Russell, 2019; Soegiyarto et al., 2020). While studies indicate that such tools can foster writing confidence and reduce common errors, they also raise concerns about the potential for over-reliance, which may hinder students' development of critical thinking and independent editing skills (Hakiki & Nurohman, 2023; John & Woll, 2020). These contradictory outcomes

highlight the need for a deeper understanding of how Grammarly influences the writing abilities of education students, particularly in terms of both its benefits and limitations in academic contexts.

Many studies focus on AI, but few investigate Grammarly, notably on the writing ability. Thus, the primary goal of this study is to delve into the effects of Grammarly on the writing ability of education students at MSU-LNAC.

This comprehensive research delves into the multifaceted effect of Grammarly to the writing abilities of students, with a specific focus on the education students at Mindanao State University - Lanao del Norte Agricultural College (MSU-LNAC). By meticulously analyzing research findings that encapsulate variables such as age, gender, year level, and academic program, this research aims to provide a comprehensive understanding of how Grammarly influences student writing performance.

METHODOLOGY

Research Design

This study employed a descriptive-correlational research design to examine the effect of Grammarly, an online writing tool, on the writing skills of education students. The descriptive approach was used to determine the level of tool utilization and its perceived effects on students' writing skills, while the correlational component was applied to identify any significant relationships between students' profile variables and the effects of the tool. This design was selected because it allows the researchers to analyze existing conditions without manipulating variables and to establish relationships among variables relevant to the research objectives.

Participants and Sampling Technique

The participants of the study were fifty (50) education students enrolled at Mindanao State University–Lanao del Norte Agricultural College during the academic year 2024–2025. These students were drawn from various programs, including Bachelor of Secondary Education (English, Mathematics, and Filipino) and Bachelor of Elementary Education. A purposive sampling technique was utilized to select respondents who were active users of the online writing tool. Inclusion criteria required participants to be currently enrolled education students and users of the tool, while those without prior experience using the tool were excluded from the study.

Research Instrument

The study utilized an adapted and modified questionnaire as the primary data collection instrument. The questionnaire consisted of three parts: (1) respondents' demographic profile, (2) level of utilization of the online writing tool, and (3) perceived effects on writing skills. The instrument underwent content validation and pilot testing before its administration. Reliability testing using Cronbach's alpha indicated that the instrument was reliable. Necessary revisions were made based on pilot test results and expert feedback to ensure clarity and accuracy of the items.

Data Gathering Procedure

Data were collected through a face-to-face survey method. The researchers secured permission from relevant university authorities before administering the questionnaires. After approval, the questionnaires were personally distributed to the selected respondents and retrieved upon completion. The data collection process ensured that respondents clearly understood the purpose of the study and were given sufficient time to answer the survey.

Data Analysis Procedure

The collected data were analyzed using descriptive and inferential statistical tools. Frequency and percentage distribution were used to describe the respondents' profile. Weighted mean was employed to determine the level of utilization and perceived effects of the online writing tool. Chi-square test was used to examine the

relationships between variables at a 0.05 level of significance. Reliability of the instrument was measured using Cronbach’s alpha.

Ethical Considerations

Ethical standards were strictly observed throughout the study. Participants were informed about the purpose of the research, and their voluntary participation was ensured through informed consent. Confidentiality and anonymity of the respondents were maintained, and all collected data were used solely for academic purposes. Respondents were also assured that they could withdraw from the study at any time without any consequences.

RESULTS AND DISCUSSION

Table 1. Frequency and Percentage Distribution of Respondents’ Age (N=50).

AGE	FREQUENCY (f)	PERCENTAGE (%)
18-20	38	76.00
21-23	11	22.00
24 above	1	2.00

Table 1 presents the frequency and percentage distribution of the respondents according to their age. There were thirty-eight (38) or 76.00% of the total number of respondents who were between the ages of eighteen and twenty (18-20). Eleven (11) or 22.00% are in the age of twenty-one to twenty-three (21-23). There were also one (1) or 2.00% who are in the age of twenty-four above (24 above) of the total number of respondents. Hence, the results imply that the majority of the respondents are in the age of eighteen to twenty (18-20) years old, while the minority of respondents are in the age of twenty-four above (24 above) years old.

Table 2. Frequency and Percentage Distribution of Respondents’ Gender (N=50).

GENDER	FREQUENCY (f)	PERCENTAGE (%)
Female	44	88.00
Male	6	12.00

Table 2 presents the gender distribution of the respondents. The result shows that among fifty (50) respondents, forty-four (44) or 88.00% of the total respondents are females, while six (6) or 12.00% of the total respondents are male. This indicates that most of the respondents are female, with the highest percentage distribution of 88.00% of the total respondents.

Table 3. Frequency and Percentage Distribution of Respondents’ Year Level (N=50).

YEAR LEVEL	FREQUENCY (f)	PERCENTAGE (%)
2 nd year	21	42.00
1 st year	14	28.00
3 rd year	11	22.00
4 th year	4	8.00

Table 3 presents the year-level distribution of the respondents. The results show that twenty-one (21) or 42.00% of the total number of respondents are in the second year (2nd year) level. Fourteen (14) or 28.00% are in the first year (1st year) level. There were also (11) or 22.00% who are in the third year (3rd year) level, four (4) or 8.00% are in the fourth year (4th year) level. Hence, the majority of the respondents are in the second-year level, while the minority of respondents is in the fourth-year level.

Table 4. Frequency and Percentage Distribution of Respondents’ Program (N=50).

PROGRAM	FREQUENCY (f)	PERCENTAGE (%)
BSED Math	15	30.00
BSED English	15	30.00
BSED Filipino	11	22.00
BEEd	9	18.00

Table 4 presents the program of the respondents. The BSED Math and BSED English programs both have the same number of respondents, which is fifteen (15) or 30.00%. For the BSED Filipino eleven (11) or 22.00%, and for the BEEd are nine (9) or 18.00%. Hence, the majority of the respondents are in the BSED Math and BSED English programs, while the minority of respondents are in the BEEd program.

Table 5. Contributing Factors Utilizing Grammarly (N=50).

INDICATORS	WEIGHTED MEAN	VERBAL INTERPRETATION
1. I noticed an improvement in my writing after using Grammarly.	3.48	Highly Utilized
2. Utilizing Grammarly improves the quality of my writing.	3.48	Highly Utilized
3. I used Grammarly to write academic papers.	3.46	Highly Utilized
4. I am familiar with Grammarly’s features and functions.	3.44	Highly Utilized
5. I find myself relying on Grammarly’s suggestions.	3.44	Highly Utilized
6. It drives me to use Grammarly for my writing tasks.	3.42	Highly Utilized
7. I find Grammarly straightforward to utilize and incorporate into my writing process.	3.24	Moderately Utilized
8. I rely on Grammarly for proofreading my work.	3.24	Moderately Utilized
9. I utilize Grammarly for each writing assignment.	2.96	Moderately Utilized
10. I used Grammarly for each writing assignment.	2.52	Moderately Utilized
Grand Weighted Mean	3.26	Highly Utilized

Table 5 shows the results of the respondents’ contributing factors on utilizing Grammarly. It could be noted that the respondents rated Highly Utilized on their Contributing Factors utilizing Grammarly, as indicated in the overall weighted mean of (3.26).

Table 6. Effects of Grammarly (N=50).

INDICATORS	WEIGHTED MEAN	VERBAL INTERPRETATION
1. Grammarly helps to offer any useful features that could enhance writing.	3.88	Highly Effective
2. Students feel confident about their writing abilities after using Grammarly as a writing assistant.	3.86	Highly Effective
3. Grammarly has helped them broaden their vocabulary and utilize more diverse language in their writing.	3.78	Highly Effective
4. Grammarly enhanced their ability to develop independent proofreading and editing skills.	3.60	Highly Effective
5. Grammarly helped their learning of grammar and writing principles.	3.56	Highly Effective
6. Grammarly helps to assist students reduce errors in their written work.	3.54	Highly Effective
7. Students find their self-engaged in the writing process as Grammarly takes over the majority of correction tasks.	3.46	Highly Effective
8. Utilizing Grammarly has made them productive in their writing tasks.	3.44	Highly Effective
9. Grammarly has positively affected their original writing style by promoting conformity to standardized language usage.	3.40	Highly Effective
10. Utilizing Grammarly has made them overly dependent on the tool for writing.	3.40	Highly Effective
11. Students find their self-less engaged in the writing process as Grammarly takes over the majority of correction tasks.	3.38	Highly Effective
12. Grammarly has hindered their ability to develop independent proofreading and editing skills.	3.36	Highly Effective
13. Grammarly has negatively affected their original writing style by promoting conformity to standardized language usage.	3.20	Moderately Effective

14. Grammarly has hindered their learning of grammar and writing principle.	3.20	Moderately Effective
15. Grammarly doesn't helped them broaden their vocabulary and utilize more diverse language in their writing.	2.90	Moderately Effective
16. Utilizing Grammarly has made them independent on the tool for writing.	2.86	Moderately Effective
17. Students feel less confident about their writing abilities after using Grammarly as a writing assistant.	2.84	Moderately Effective
18. Grammarly fail to assist students reducing errors in their written work.	2.82	Moderately Effective
19. Utilizing Grammarly has made them overly dependent on the tool for writing.	3.40	Highly Effective
20. Grammarly has hindered their learning of grammar and writing principle.	3.20	Moderately Effective
Grand Weighted Mean	3.30	Highly Effective

Table 6. shows the results of the respondents' effects of Grammarly. It could be noted that the respondents rated Highly effective on their effects of Grammarly, as indicated in the overall weighted mean of 3.30.

Table 7. Relationship between the Respondents' Age and the Effects of Grammarly (N=50).

p-value	Degree of Freedom	Level of Significance
0.121 ^{ns}	20	0.05

ns=not significant

Table 7 shows the results on the respondents' age and the effects of Grammarly. The computed p-value of 0.121 is greater than the 0.05 level of significance with 20 degrees of freedom. Thus, the null hypothesis is accepted. There was no significant relationship between the respondents' age and the effects of Grammarly.

Table 8. Relationship between the Respondents' Gender and the Effects of Grammarly (N=50).

p-value	Degree of Freedom	Level of Significance
0.786 ^{ns}	10	0.05

ns=not significant

Table 8 shows the results on the respondents' gender and the effects of Grammarly. The computed p-value of 0.786 is greater than the 0.05 level of significance with 10 degrees of freedom. Thus, the null hypothesis is accepted. There was no significant relationship between the respondents' gender and the effects of Grammarly.

Table 9. Relationship between the Respondents' Year Level and the Effects of Grammarly (N=50).

p-value	Degree of Freedom	Level of Significance
0.218 ^{ns}	30	0.05

ns=not significant

Table 4.9 shows the results on the respondents’ year level and the effects of Grammarly. The computed p-value of 0.218 is greater than the 0.05 level of significance with 30 degrees of freedom. Thus, the null hypothesis is accepted. There was no significant relationship between the respondents’ year level and the effects of Grammarly.

Table 10. Relationship between the Respondents’ Program and the Effects of Grammarly (N=50).

p-value	Degree of Freedom	Level of Significance
0.666 ^{ns}	30	0.05

ns=not significant

Table 10 shows the results of the respondents’ program and the effects of Grammarly. The computed p-value of 0.666 is greater than the 0.05 level of significance with 30 degrees of freedom. Thus, the null hypothesis is accepted. There was no significant relationship between the respondents’ program and the effects of Grammarly.

Table 11: Relationship between the Contributing Factors in Utilizing Grammarly and the Effects of Grammarly (N=50).

p-value	Degree of Freedom	Level of Significance
0.217 ^{ns}	70	0.05

ns=not significant

Table 11 shows the results on the contributing factors in utilizing Grammarly and the effects of Grammarly. The computed p-value of 0.217 is greater than the 0.05 level of significance with 70 degrees of freedom. Thus, the null hypothesis is accepted. There was no significant relationship between the contributing factors in utilizing Grammarly and the effects of Grammarly.

CONCLUSION

This study shows that online writing tools can be helpful in improving students’ writing, especially in areas like grammar, sentence construction, and overall clarity. The findings suggest that many students find the tool useful and regularly use it to support their writing tasks. At the same time, the results indicate that its effectiveness does not depend on students’ age, gender, year level, or program, which means it can be beneficial to a wide range of learners.

In practice, this means teachers can confidently include online writing tools as part of their teaching strategies to support students in developing better writing skills. However, it is important to remind students that these tools should not replace their own thinking and effort. Instead, they should be used as a guide to help students learn and improve, not as something to rely on completely.

From an educational and institutional perspective, schools may consider providing access to such tools and encouraging their proper use in academic work. At the same time, lessons should still focus on helping students build their own writing skills, so they become more independent and confident writers.

For future research, it would be useful to look at how these tools affect students over a longer period of time or to compare different writing tools. Studies could also explore how they influence deeper aspects of writing, such as critical thinking, organization, and originality.

Overall, online writing tools can be a valuable support for students, but their real benefit comes when they are used wisely and combined with continuous practice and learning.

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