ISSN (Online): 2455-3662
EPRA International Journal of Multidisciplinary Research (IJMR) - Peer Reviewed Journal
Volume: 11| Issue: 1| January 2025|| Journal DOI: 10.36713/epra2013 || SJIF Impact Factor 2024: 8.402 || ISI Value: 1.188

SOCIOCULTURAL INFLUENCES OF SOCIAL MEDIA EXPOSURE AND AI OPTIMIZATION ON STUDENTS' GRAMMATICAL COMPETENCE IN LANGUAGE LEARNING

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Article DOI: https://doi.org/10.36713/epra19962
DOI No: 10.36713/epra19962

ABSTRACT

Grammatical competence is crucial for effective communication but presents significant challenges for learners. This study examines the influence of sociocultural factors, such as social media exposure and AI optimization, on students' grammatical skills. A descriptive correlational approach was used, surveying 116 Grade 9 students with an adapted questionnaire. Results showed that students have a relatively high level of social media exposure, engaging with platforms at moderate to high frequencies, indicating its strong presence in their lives. In contrast, AI optimization was perceived at a moderate level, reflecting a balanced awareness of AI technologies in their academic experiences. However, the study found that neither social media exposure nor AI optimization significantly impacted students' grammatical competence. Despite widespread social media use and moderate AI awareness, neither factor seemed to enhance their grammatical abilities.

KEYWORDS: *social media exposure, AI optimization, grammatical competence, descriptive correlational*

INTRODUCTION

The problem and its Setting

Grammatical competence is a cornerstone of language proficiency, enabling learners to foster effective communication. This skill plays a role in various environments as it enhances learners' ability to engage with diverse audiences, navigate cross-cultural interactions, and write correspondence without fear of miscommunication. However, despite its importance, this competence poses significant challenges for learners because of its complexity and variety of grammatical rules. Thus, this study on the sociocultural influences on grammatical competence is essential as it addresses the evolving dynamics of language learning in the digital age.

From a global perspective, learners pose difficulties in developing their grammatical competence due to diverse digital communication influences, revealing widespread concern across educational systems. Reports show that students struggle to master writing skills as they are hesitant to communicate their ideas grammatically correctly (Dinsa, 2023). The rise of informal communication platforms, which have normalized non-standard grammar, abbreviations and colloquial expressions, may inadvertently influence their speaking and writing skills (Qian et al., 2024). This highlights the need to dig deeper into sociocultural factors that may shape students' grammatical competence (Teng & Qin, 2024).

In the Philippines, students' grammatical competence in their writing composition has become a growing concern, especially in the context of the online learning shift with less supervision on their writing process (Gilmore et al., 2023). Additionally, students have developed a tendency to rely heavily on these technologies, which declines their interest in learning grammar rules and leads to a need for more critical thinking in their writing content (Subingsubing, 2023). Social media exposure and AI Optimization have had a noticeable impact on students' quality of written work that contains grammatically incorrect sentences, awkward phrasing, and unclear expressions, which hinder the overall effectiveness of their communication (Galuardo, 2024).

In the local context, students face challenges in composing grammatically correct essays that meet academic standards (Sioco & De Vera, 2018). The prevalence of informal language in social media leads to learners' inability to express their ideas effectively in English (Wannemacher, 2023). Additionally, the reliance on AI tools such as grammar checkers and writing assistants may hinder the development of independent grammatical skills, as students prioritize convenience over mastering foundational rules. With this, researchers were compelled to understand how sociocultural factors such as social media exposure and AI Optimization influence students' grammatical competence as key indicators of language learning. The result aimed to design interventions that mitigate the adverse effects of informal language exposure and over-reliance on AI tools.

Significance of the Study

The significance of this study extended to various stakeholders within the educational landscape, including institutions, teachers, students, and future researchers. Through this study findings, institutions can design policies and programs that integrate these technologies effectively into curricula, ensuring

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that they align with pedagogical goals and contribute meaningfully to language proficiency. Teachers can adapt their teaching strategies by incorporating these tools in ways that complement traditional methods, highlighting the importance of using technologies responsibly to support the language learning process. Students can evaluate their digital habits and make informed decisions to optimize their use for academic purposes. Moreover, this served as a reference for future researchers as they identify the gaps and areas for further investigation to deepen understanding and contribute to the evolving educational paradigms in the digital age.

Statement of the Problem

The study aimed to determine the sociocultural influences of social media exposure and AI optimization on students' grammatical competence in the context of language learning. Specifically, the study is in the pursuit of the following objectives:

1. To assess the level of social media exposure and AI optimization among students.
2. To evaluate the level of students' grammatical competence.
3. To investigate whether sociocultural influences of social media exposure and AI optimization significantly influence students' grammatical competence in language learning.

Hypothesis

The hypothesis of this study was tested at a 0.05 level of significance.

Ho1. Sociocultural influences of social media exposure and AI optimization do not significantly influence students' grammatical competence in language learning.

Theoretical Framework

The study is anchored to Vygotsky's Sociocultural theory, which emphasizes the role of social interaction, cultural context and mediated tools in cognitive development and learning. Mediating tools, including language, social norms, and technology, shape the learning experience. In this study, social media platforms that foster communication and AI tools that serve as modern mediators that scaffold learners for corrective support are considered mediating artifacts that facilitate interactions and provide resources for language learning. Thus, this study investigates how these tools and platforms influence students' grammatical competence as one of the indicators of language learning.

Conceptual Framework

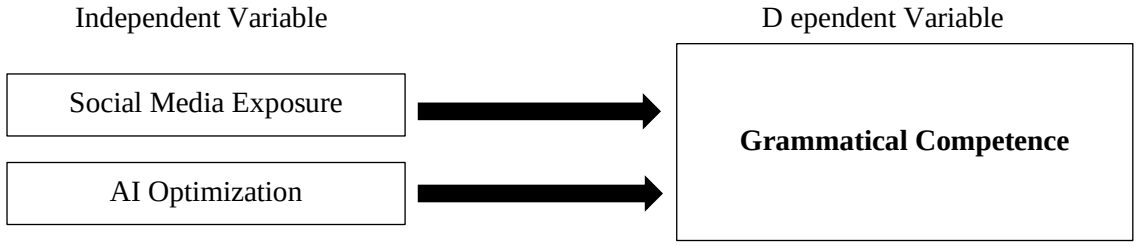


Figure 1. ***Schematic Diagram of the Variables of the Study***

METHOD

Research Design

The study was descriptive correlational, which, according to Bhandari (2022), is used to test the strength of association and relationships between variables without the researcher controlling any of them. With this research design, the study aimed to determine the relationship between students' social media exposure and AI Optimization and its influence on their grammatical competence as one of the indicators of language learning. This involved a survey questionnaire, which provided snapshots of the interplay of these two factors. The students werealso be asked to compose an on-the-spot essay to assess student's on their actual grammatical competence.

Locale of the Study

The locale of this study was a private school located in Mintal, Davao City. Specifically, the research were conducted among Grade 9 students enrolled in the academic year 2024-2025. This particular grade level was chosen as it is a crucial stage in students' academic journey, where they are expected to develop advanced writing skills, including grammatical competence. By focusing on this specific locale and grade level, the study aimed to gain insights into their social media exposure and AI Optimization and its influence on grammatical competence.

Respondents

The respondents of this study were Grade 9 students. Respondents' qualifications include criteria that are as follows: (1) enrolled in the academic year 2024-2025 for standardized context; (2) At least completed one semester of English subject instruction in Grades 7 and 8 to ensure that they have at least foundational knowledge in English; (3) Must have regular attendance record in English classes to ensure that have received consistent instruction; (4) and is willing to participate in the study to ensure ethical compliance. Students who met the inclusion criteria were eligible to participate in the study.

Sample and Sampling

The sample size was computed using Yamane's (1967) formula. This approach was used for finite populations, where a finite population is a population whose size can be determined (Ovie, 2023). The mathematical illustration was presented as n= N/ (1+N (e) 2), where N signifies the total population of 164, and e signifies a margin of error of 5%, accumulating the precise number of 116 as n, which signifies the sample size. With this,

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samples of 100 or more respondents can already represent the entire population (Stratton, 2021). The respondents was selected through stratified random sampling. This sampling ensured subgroups are well-represented with finite populations, increasing the results' generalizability (Simkus & Guy-Evans, 2023). With this, the researcher was divided the population according to their section serving as the strata and then randomly select 29 among each stratum for the final sample 116.

Research Instrument

The researcher made use of an adapted survey questionnaire. The first part of the questionnaire measured social media exposure from the study of Baria (2021), while the second part assesses AI Optimization from the study of Capinding (2024). This is a 5-point Likert Scale questionnaire with 1 (Never) as having the lowest descriptive equivalent and interpretation and 5 (Always) as having the highest descriptive equivalent and interpretation, illustrated in the table below.

RANGE OF MEANS	LEVEL	DESCRIPTION	DESCRIPTIVE MEANING
4.21-5.00	5	Always	The level of Social Media Exposure and AI Optimization is very high.
3.41-4.20	4	Often	The level of Social Media Exposure and AI Optimization is high.
2.61-3.40	3	Sometimes	The level of Social Media Exposure and AI Optimization is average.
1.81-2.60	2	Rarely	The level of Social Media Exposure and AI Optimization is low.
1.00-1.80	1	Never	The level of Social Media Exposure and AI Optimization is very low.

The last part was the student's grammatical competence through on-the-spot essay composition. The table below illustrates the descriptive equivalent and interpretation.

RANGE OF MEANS	LEVEL	DESCRIPTION	DESCRIPTIVE MEANING
4.21-5.00	5	Proficient	The student's grammatical competence in English essays demonstrates a high proficiency level in correctness, clarity, and delivery.
3.41-4.20	4	Good	The student's grammatical competence in English essays demonstrates a commendable proficiency in correctness, clarity, and delivery.
2.61-3.40	3	Satisfactory	The student's grammatical competence in English essays demonstrates satisfactory proficiency in correctness, clarity, and delivery.
1.81-2.60	2	Needs Improvement	The student's grammatical competence in English essays requires further correctness, clarity, and delivery improvement.
1.00-1.80	1	Poor	The student's grammatical competence in English essays does not meet the required level of correctness, clarity, and delivery.

Data Gathering Procedures

The researchers observed these procedures, ensuring to practice the following provisions as enumerated below:

1. Creation of a Letter of Communication. The researcher constructed a letter to the college president to formally ask permission to conduct the study within the school premises and consent to disseminate survey questionnaires and conduct on-the-spot essay writing to the target respondents enrolled in the academy.

2. Validation and Administration of the Instrument. The survey questionnaires was validated by an expert prior to dissemination. Once the instrument is validated, the survey process has begun. The questionnaire was administered face-to-face. Thus, instructions on responding to the questions as accurately as possible was detailed on the form provided.

3. Collation of Data and Processing. Answered questionnaires were collected in preparation for statistical treatment and analysis. The responses were recorded, summarized, and

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treated with appropriate statistical tools. To administer faster results, the researchers tallied, coded, and summed the total response points per question before averaging, and the essay were checked via Grammarly. The results were the basis for developing a summary, conclusion, and recommendation.

4. Consultation with the Statistician. After retrieving and organizing the data, the research statistician was consulted to ensure the data can be accurately computed and apportioned.

5. Interpretation and Analysis of Data. Once the data is presented, the interpretation and analysis of the data results follow. This involved providing comments on the results obtained from the investigation.

Data Analysis

The following statistical tools were utilized in order to give mathematical representations of the data gathered from the respondents:

Mean. This assessed students' social media exposure levels and AI optimization.

Percentages. This was employed to assess the students' grammatical competence levels via Grammarly results.

Multiple Regression Analysis. This determined whether sociocultural influences of social media exposure and AI optimization significantly influence students' grammatical competence in language learning.

Ethical Considerations

The study adherde to ethical guidelines for research involving human subjects, including informed consent, confidentiality, and data security. Necessary approvals were obtained from relevant ethical review boards or institutional review boards.

Acknowledgement and Attribution. Proper acknowledgement and attribution were given to sources of information contributing to the research.

Anonymity and Confidentiality. To protect respondents' privacy, strict confidentiality weas maintained. Thus, identities were anonymized using pseudonyms or codes.

Data Handling. The data collected during the study were securely stored and accessed only by authorized individuals. A plan for the ethical and secure disposal of the data was established.

Fairness and Impartiality. The researcher maintained objectivity and impartiality throughout the study, avoiding biases that impact the findings.

Informed Consent. Informed consent were obtained from all respondents, providing comprehensive information about the research's purpose, procedures, potential risks, and benefits.

Plagiarism. The researcher made sure that the correct and accurate way of citing ideas from other writers and scholars is fully observed. To be able to do this, this paper underwent grammar and plagiarism checking via Grammarly and Turnitin software.

Protection of vulnerable groups. Special care was taken to protect vulnerable groups, such as respondents with disabilities, from harm or discomfort during the research.

Risks, Benefits, and Safety. This research was conducted face-to-face and did not involve the high-risk situation that the population may experience regarding physical, psychological, or socioeconomic concerns.

Voluntary Participation. Participation in the study were voluntary, and respondents were assured they can withdraw without any consequences or pressure.

RESULTS AND DISCUSSION

Level of Social Media Exposure

Table 1. ***Level of Social Media Exposure***

	$\bar{x}$	SD
Social Media Exposure	3.56	0.65
OVERALL	3.56	0.65

Table 1 presents the level of students' social media exposure. With the given data, it presents that students have a relatively high level of exposure to social media, with the mean of 3.56 and a standard deviation of 0.65. This proposes that, on average, students engage on social media at a moderate to high frequency. The relatively low standard deviation indicates that the responses are consistent, with most students reporting similar levels of social media engagement. Such findings highlight the significant role social media plays in students' daily lives and interactions, reflecting its widespread and pervasive influence.

The current study reveals a high level of social media exposure, which is in line with previous studies on social media usage. For example, the study by Erdoğan Tezci and Mustafa İçen (2017) on the social media usage habits of high school students reveals an increasing trend in social media engagement, as students spend a lot of time on YouTube and Facebook. This study highlighted that students often engage in social media for entertainment, information sharing, and socialization, which is in line with the general exposure to social media observed in the current study. Additionally, Yasmin Hashem's (2015) study on social media's impact on academic performance found no significant link between social media use and academic achievement, suggesting that, while social media engagement

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is widespread, its influence on other areas of life, such as academics, may be neutral. In contrast, a study on undergraduate students at Prince Abubakar Audu University in Nigeria (Ayokunnu, Ojotule, & Omach, 2024) supports the notion of significant social media usage but highlights concerns such as privacy issues and the negative impact on study time. Overall, while these studies underscore the growing prevalence of social media, they also reflect varying perspectives on its broader impact, offering a nuanced view of students' social media exposure.

Additionally, this is also observed that the current study is further supported by various research findings that emphasize the widespread and growing usage of social media among students. For instance, Miao Chen and colleagues (2022) observed that social media use among students has dramatically increased, particularly in the post-pandemic era, as it has become an essential tool for communication and education across various fields. This rising usage, however, has raised concerns about its potential negative effects on students' emotional well-being, such as stress and anxiety. Additionally, a study by Nur Liyana Akilah Mohd Jaffari and colleagues (2024) on students in Pahang's public higher education institutions found that social media use not only remains prevalent but also significantly impacts academic performance, particularly through social and cognitive interactions. Similarly, Md. Sajjat Hossain and colleagues (2020) discovered that social media is an integral part of tertiary students' daily lives, with many using it for entertainment, spending several hours per day on various platforms. Their research suggests that the frequency of social media use correlates with both academic and personal life outcomes. These studies collectively support the findings of high social media engagement among students and align with the current study's results regarding the significant role of social media exposure in students' lives. However, they also draw attention to the potential negative consequences of excessive social media use, offering a broader perspective on its impact.

Level of AI Optimization

Table 2. ***Level of AI Optimization***

	$\bar{x}$	SD
AI Optimization	3.21	0.97
OVERALL	3.21	0.97

Table 2 presents the level of AI optimization among high school students. The data reveals an average rating of 3.20, with a low standard deviation of 0.18, suggesting that students generally perceive AI optimization at a moderate level. This indicates that students have a balanced awareness or engagement with AI technologies, neither seeing it as highly integrated nor completely absent from their academic experiences. The relatively low standard deviation further reflects the consistency in students' views, with most participants sharing similar perceptions of AI optimization. While the moderate mean score suggests that AI is acknowledged by high school students, it also implies that AI has not yet become a transformative or essential component in their daily academic or social lives. This highlights that AI integration in educational settings may still be in its early stages, with potential for further development.

The findings of the current study on the moderate level of AI optimization among students are partially supported by existing literature. A report on AI's rising influence in higher education suggests that while AI is increasingly integrated into educational settings, many students remain concerned about its excessive reliance and the potential devaluation of education quality (Rowsell, 2024). These concerns resonate with the current study's moderate rating of AI optimization, indicating that although AI is recognized by students, its full integration and optimization in education are still met with caution. Additionally, research by Zhang et al. (2024) on AI dependency reveals that overuse of AI can negatively affect critical thinking and creativity, which could contribute to the students' moderate perception of AI's optimization in their learning experiences. Similarly, Tamrin et al. (2024) examine the cognitive implications of AI dependency among Generation Z students, arguing that excessive reliance on AI may hinder cognitive development. These studies support the notion that while students acknowledge AI's presence and utility, they also exhibit reservations about its overuse, explaining the average rating of AI optimization observed in the current study.

Furthermore, the level of AI optimization are supported by research that emphasizes the evolving role of AI in education. For instance, Chen and Xiao (2023) highlight AI's potential to optimize educational management, particularly in enhancing personalized learning and curriculum customization. However, they also note that challenges such as privacy concerns and the need for adequate human resource preparation hinder the full integration of AI. Similarly, Zhai et al. (2024) emphasize the risks associated with over-reliance on AI dialogue systems, which can negatively affect students' cognitive abilities. These findings suggest that while AI is increasingly integrated into education, it has not yet reached a level of optimization that fully enhances learning outcomes. This aligns with the present study's result, where AI optimization among students is rated moderately, indicating that while AI is acknowledged, its impact and integration are still in the early stages of development.

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Level of Students' Grammatical Competence

Table 3. ***Level of Students' Grammatical Competence***

	$\bar{x}$	SD
Grammatical Competence	3.56	0.94
OVERALL	3.56	0.94

Table 3 shows the level of students' grammatical competence, with a mean score of 3.56 and a standard deviation of 0.94. This suggests a relatively high level of grammatical proficiency, especially in English essay writing. The mean score indicates that students are generally skilled at using correct grammar, structuring their ideas clearly, and delivering their content effectively. While the standard deviation reflects some variation in individual performance, it is still moderate, indicating that most students perform at similar levels, with only a few outliers. Overall, the data suggests that students exhibit strong grammatical skills, positively influencing the quality and clarity of their written work.

The findings from the studies mentioned both align with and diverge from the results presented in Table 3 regarding students' grammatical competence. In Sioco and De Vera's (2018) study, the level of grammatical competence of Junior High School students was assessed, revealing a need for further improvement in subject-verb agreement, despite students having some exposure to reading materials. This aligns with Table 3's result, which shows a relatively high level of grammatical proficiency but implies there is still room for enhancement in specific areas, such as subject-verb agreement. On the other hand, Andilab and Amante (2024) focused on the impact of the pandemic on grammatical competence, showing that many Senior High School students exhibited only moderate mastery in grammar. This suggests that the students in Table 3 may have higher overall proficiency than those studied during the pandemic, where external factors like socio-economic status and psychological impacts were also seen to affect students' grammatical knowledge. Meanwhile, Zulkarnain (2020) found that while grammatical competence affects speaking proficiency, the direct correlation between grammar and speaking performance was not strongly significant. This challenges the assumption in Table 3 that strong grammatical skills directly contribute to effective communication in writing, indicating that grammatical mastery may not always directly translate to oral proficiency, as observed in speaking classes where subject-verb agreement was the most frequent error. Overall, these studies highlight a nuanced view, indicating that while students show general proficiency, certain areas require targeted improvements and external factors can influence their learning outcomes.

Moreover, studies cited present a nuanced view that partially agrees with and partially challenges the results in Table 3 regarding students' grammatical competence. In Fitrawati and Safitri's (2021) study, despite students having been taught grammar, they still made a significant number of grammatical errors in essay writing, particularly in verb usage. This contrasts with Table 3, where students were described as demonstrating a relatively high level of grammatical proficiency, suggesting that, in this case, students may have been less prone to the types of errors found in Fitrawati and Safitri's study. Similarly, Gildore, Uka, and Yting (2023) reported that Senior High School students made frequent grammatical errors, particularly in areas like preposition usage and sentence structure, implying that these students faced challenges in applying grammar and writing conventions. This is somewhat in agreement with Table 3's finding of high proficiency, though the study indicates that even among senior students, grammatical mastery can be inconsistent. Lastly, Yuliah, Widiastuti, and Meida (2019) found that students made common grammatical errors such as issues with conjunctions and punctuation, and mechanical errors like incorrect spelling and capitalization, echoing concerns about student proficiency in grammar despite their general competency. These studies reveal that while students may generally demonstrate competence, specific areas still require attention and improvement, aligning with the results in Table 3 but suggesting that students' proficiency might vary in different contexts or types of writing.

Social Media Exposure and AI Optimization on Students' Grammatical Competence in Language Learning

Table 4. Significance Influence of Social Media Exposure and AI Optimization on Students' Grammatical Competence in Language Learning

	Beta Coefficient (β)	Constant β	R^2	p-value	Interpretation
Social Media Exposure	-0.280	3.917	0.024	0.666	Not Significant
AI Optimization	0.199				

Table 4 determine the significance influence of social media exposure and AI optimization on students' grammatical competence in language learning and multiple linear regression analysis was utilized. Results from the regression table show that the p-value is 0.666 which is found to be above the 0.05 level of significance set for this study. This means that overall, the model is considered to be not significant and the model does not fit the data. Thus, social media exposure and AI optimization do not influence the grammatical competence among high school students. When looking at the regression coefficient of social media exposure and AI optimization, the estimated regression model can be mathematically presented as: DV = 3.917 (constant) + (-0.280) (IV1) + 0.199 (IV2) + Єi.

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The value of the beta coefficient of -0.280 for variable social media exposure implies that for every 1 unit change in the level of social media exposure would give a 0.280 unit decrease in the level of grammatical competence. Meanwhile, the beta coefficient of 0.199 for variable AI Optimization implies that for 1 unit increase in the level of AI Optimization would give a 0.199 unit increase in the level of DV. However, this low level of influences are consider not significant. Furthermore, the explanatory and predictive power of social media exposure and AI optimization is considered to be very low because it could account for 2.4 percent of the variation of the grammatical competence of the respondents. This is illustrated in the model summary table which shows that the adjusted R2 is 0.024. The remaining 97.6 percent unexplained variation could be accounted for by other variables not included as model in this study.

In regard to the student's social media exposure and grammatical influence, the studies reviewed above indicate a mixed agreement with the current study's findings regarding the impact of social media exposure on students' grammatical competency. A study by Bergula et al. (2023) shows no significant association between the social media exposure of students and grammar proficiency, consistent with the present study's finding of no influence of social media exposure on grammatical competence since its p-value = 0.666. Otibar et al. (2023) also reported a lack of significant correlation between the exposure of junior high school students to social media and grammar proficiency, supporting the conclusion of the current study that social media does not significantly affect the grammatical performance of students. In contrast, Esman et al. (2021) found a slight positive significant relationship between social media exposure and English writing proficiency among Grade 11 students, which somewhat contradicts the findings of the current study, suggesting that social media exposure may have a more positive influence on writing skills but does not directly improve grammar competence. Overall, most the studies, starting with Bergula et al. (2023) and finishing with Otibar et al. (2023), support current study's outcomes, showing there is no increase in grammar skill due to increased exposure to social media.

Additionally, with AI Optimization and students grammatical influence, the findings of the studies reviewed offer varying perspectives on the impact of AI optimization on students' language proficiency, particularly in writing. Utami and Winarni (2023) highlight that while AI-based tools in academic writing classes assist students with research and drafting, they do not significantly improve the quality of students' academic papers. This aligns with the current study's results, where AI optimization did not show a significant effect on grammatical competence. Similarly, Alzahrani and Alotaibi (2024) found improvements in various writing skills, such as task achievement, coherence, and cohesion, but noted a decrease in grammatical accuracy, suggesting that while AI may enhance some aspects of writing, its effect on grammar may be limited. This partially supports the current study's findings, which showed a minimal positive influence of AI optimization on students' grammatical competence. On the other hand, Arbi (2024) emphasizes the potential of AI tools like ChatGPT in enhancing various aspects of language learning, including English proficiency, which contradicts the current study's results where AI optimization was found to have a negligible impact. Overall, while some studies suggest positive outcomes of AI in language learning, they acknowledge that its effects on grammar and writing quality are still not fully optimized, which aligns with the current study's conclusion of limited influence.

CONCLUSION

The study sought to establish the sociocultural impacts of social media exposure and AI optimization on students' grammatical competence in the context of language learning. The 116 Grade 9 students show a fairly high level of exposure to social media, which would mean that the students use the social media platforms moderately to frequently; this points to the very crucial role social media plays in students' daily life and interactions and shows how prevalent and pervasive the influence is. In the level of AI optimization, the result is an average rating that shows that students perceive AI optimization at a moderate level. This shows that students have balanced awareness or engagement with AI technologies, not finding it highly integrated nor completely absent from their experiences in academic processes. In summary, exposure to social media and AI optimization has no influence on the grammatical competence of high school students. In conclusion, although social media exposure is general among the students, it does not seem to have a strong impact on their grammatical competency in language learning. Secondly, students are generally modestly aware of AI optimization, which does not appear to play a key role in facilitating their grammatical skills.

RECOMMENDATIONS

After conducting comprehensive interpretations, this study delivers significant findings regarding various organizations and individuals. The researchers then propose the following recommendations for these entities:

Teachers and Language Educators. Teachers may continue focusing on traditional language learning methods while integrating technology and social media in a balanced way. Since the study suggests that neither social media exposure nor AI optimization directly impacts grammatical competence, educators should prioritize structured grammar instruction and provide more personalized feedback to improve students' grammatical skills.

School Administrators. Administrators may consider offering professional development opportunities for teachers to better integrate AI tools and social media into language learning curricula. However, since these factors do not show a significant influence on grammatical competence, the focus should remain on enhancing core language instruction.

Policy Makers in Education. Policymakers may assess whether the integration of AI and social media into educational frameworks aligns with desired learning outcomes. Given that

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the study found no significant influence on grammatical competence, policies might prioritize alternative interventions that more effectively enhance language skills, such as grammar-focused digital tools or enhanced teacher-student interaction.

ACKNOWLEDGMENT

The researchers would like to thank their adviser, **Lilian B. Dupa, Ph.D,** for her guidance. Her cordial advice and professional guidance have been important throughout all stages of the work.

The authors would also like to express their gratitude to the committee members for fostering a comfortable atmosphere during the defense discussions and providing helpful comments that significantly enhanced the quality of the thesis.

We are also thankful for all the experts who have thoroughly review the manuscript and providing timely and helpful comments on our issues. Additionally, we appreciate their expertise in accurately calculating our statistics.

Our **family**, who provided unwavering support and encouragement, primarily contributed to this endeavor.

Ultimately, we thank **God**, our Benevolent Provider, for guiding us through all the challenges. You are the individual responsible for allowing us to complete this course. We shall continue to place our trust in You for our future. Thank you, Lord.

-The Researchers

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ISSN (Online): 2455-3662
EPRA International Journal of Multidisciplinary Research (IJMR) - Peer Reviewed Journal
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APPENDICES

APPENDIX A
Letter of Permission

Sr. Zosima A. Escolano, PM,Ph,D.
School Director
Holy Cross of Mintal. Inc.
Mintal, Davao City

Dear Sr. Zosima:

Ad Jesum Per Mariam!
We, Samantha C. Bigwas and Jarsey Krim , students of Holy Cross of Davao College, are currently conducting a research study entitled **"Sociocultural Influences of Social Media Exposure and AI Optimization on Students' Grammatical Competence in Language Learning"**.
The study aims to determine the sociocultural influences of social media exposure and AI optimization on students' grammatical competence in the context of language learning. Specifically, the study is in the pursuit of the following objectives:

1. To assess the level of social media exposure and AI optimization among students.
2. To evaluate the level of students' grammatical competence in terms of:
    1. Correctness
    2. Clarity
    3. Delivery
3. To investigate whether sociocultural influences of social media exposure and AI optimization significantly influence students' grammatical competence in language learning.

As part of our research, we would like to request permission to conduct a survey among the Grade 9 students of your school. The survey will take approximately 10 minutes to complete.
We assure you that the information collected will be kept strictly confidential and will only be used for academic purposes. The survey will take approximately 10 minutes to complete.
We would be grateful if you would grant us permission to conduct this research. We are available to discuss this further at your earliest convenience.

Thank you for your time and consideration.

Respectfully yours,

Miss Samantha C. Bigwas
JHS Teacher

Noted by:

Mrs. Kathelene Jane A. Galgo
Subject Coordinator

Dr. Mary C. Deocariza
High School Principal

Mrs. Leida V. Cuadra
Human Resource Officer

Approved by:

Sr. Zosima A. Escolano, PM,Ph.D.
High School Principal

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EPRA International Journal of Multidisciplinary Research (IJMR) - Peer Reviewed Journal
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APPENDIX B
SURVEY QUESTIONNAIRE

Dear Respondent,

The researchers are **MAEd ELT** students of **HOLY CROSS OF DAVAO COLLEGE** and are currently conducting a study entitled **SOCIOCULTURAL INFLUENCES OF SOCIAL MEDIA EXPOSURE AND AI OPTIMIZATION ON STUDENTS' GRAMMATICAL COMPETENCE IN LANGUAGE LEARNING.**

As one of the respondents, we would like to ask you to take a little time to answer the survey questionnaire relevant to our research pursuit. We are confident that you could provide the most honest answers for this survey so we can draw the best conclusions and recommendations.

Your responses will be kept confidential, following the ethical protocols set in any research work. For instance, the consent form mentioned that your name or identity will be hidden, and only general results will be reported.

Thank you and God bless.

Truly yours,

JARSEY KRIM ALOB TAUB
Researcher

SAMANTHA CESAR BIGWAS
Researcher

PART I. SOCIAL MEDIA EXPOSURE

Instruction: Read each statement thoroughly and evaluate your social media exposure according to the following scale:

5- Always
4- Often
3- Sometimes
2- Rarely
1- Never

	5	4	3	2	1
1. Social media allows me to do research for my lessons /assignments.					
2. I use social media for uploading pictures and videos.					
3. I check my social media account every day.					
4. Social media updates me of my friends and family's activities.					
5. Social media increases my ability to communicate.					
6. Social media allows me to make more friends.					
7. I spend more than three hours using/accessing my social media account.					
8. Social media is a distraction to release boredom					
9. I use social media because it allows me to reinvent myself					

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10. Social media is a venue for interactive discussion.					
11. Social media enriches my vocabulary.					
12. I see my social media account as a venue for releasing my school pressure and stress.					
13. Social media affects my spelling proficiency.					
14. I use social media to express myself in any way I want.					
15. Social media affects my communication skills.					
16. I see to it that each account is updated daily.					
17. Social media eliminates the need for the physical presence of a friend.					
18. Because of social medias I sometimes forgot/missed making assignments and other school tasks.					
19. I do not update my social media account/s regularly.					
20. I stay awake late at night updating, watching videos, and responding to the newsfeeds of my account.					
21. I update my profile once in a while.					
22. I see social media as the reason for the increase or decrease in my grades in school.					
23. I feel delighted spending most of my time using social media apps.					
24. I spend more time browsing my account than reading.					
25. I make sure that I react and / or comment on every feed I receive in my account.					
26. I feel irritated if I cannot check my social media account.					
27. I maintain 2 -3 social media accounts.					
28. I feel the need to update my status on my social media account rather than reading my book.					
29. I unconsciously use short words (abbreviations, acronyms, jijimon) usually used in social media in my school writing activities.					
30. I came late to school once in a while because I slept late accessing my social media account/s.					

PART II. AI OPTIMIZATION

Instruction: Read each statement thoroughly and evaluate your AI optimization according to the following scale:

5- Always
4- Often
3- Sometimes
2- Rarely
1- Never

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	5	4	3	2	1
1. I utilize AI-based spelling and grammar checkers when composing written content.					
2. I rely on AI tools for generating ideas or suggestions when drafting written documents.					
3. I use AI-driven writing assistants to enhance the overall quality of my written work.					
4. AI-generated templates or frameworks assist me in structuring my written content.					
5. I depend on AI-powered paraphrasing tools to rephrase sentences in my written work.					
6. I use AI-driven auto-complete features when composing emails or other written correspondence.					
7. AI-driven content creation tools help me generate creative or promotional written materials.					
8. I rely on AI-enhanced proofreading tools to identify errors in my written work.					
9. AI-based sentiment analysis tools assist me in gauging the tone of my written communication.					
10. I use AI-powered social media management tools to generate or schedule written posts.					
11. AI-generated suggestions for email subject lines improve the effectiveness of my written communication.					
12. I depend on AI-based content summarization tools for condensing lengthy written materials.					
13. I use AI-driven brainstorming tools to generate ideas for written projects.					
14. AI-powered writing prompts or exercises help me overcome writer's block.					
15. I rely on AI-generated suggestions for enhancing the clarity and coherence of my written content.					

PART III. GRAMMATICAL COMPETENCE

Instruction: Write an essay about the role of technology in language learning. Your essay will be evaluated based on the following criteria:

5 -Proficient
4 -Good
3 -Satisfactory
2 -Needs Improvement
1 -Poor

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EPRA International Journal of Multidisciplinary Research (IJMR) - Peer Reviewed Journal
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CURRICULUM VITAE



JARSEY KRIM ALOB TAUB
College Instructor
Guihing Hagonoy Davao del Sur

PERSONAL DATA

Birthday : September 03, 1999
Birthplace : Digos City
Sex : Female
Civil Status : Single
Citizenship : Filipino
Religion : Roman Catholic
Father's Name : Mr. Raul Quijano Taub
Mother's Name : Mrs. Mildred Alob Taub

EDUCATIONAL BACKGROUND

Graduate Studies — **Holy Cross of Davao College**
Sta. Ana Avenue, Davao City, Philippines
Master of Arts in Education major in Language Teaching
2024-Present

College — **University of Mindanao Digos College**
Roxas Extension, Digos City
Bachelor of Secondary Education Major in English
Summa Cum Laude
2018-2022

Secondary — **Saint Michael's School of Padada**
Quirino District, Padada Davao del Sur
General Academic Track
With High Honor
2012-2018

Elementary — **Guihing Central Elementary School**
Guihing, Hagonoy Davao del Sur
With Honor
2006-2012

ISSN (Online): 2455-3662
EPRA International Journal of Multidisciplinary Research (IJMR) - Peer Reviewed Journal
Volume: 11| Issue: 1| January 2025|| Journal DOI: 10.36713/epra2013 || SJIF Impact Factor 2024: 8.402 || ISI Value: 1.188



SAMANTHA C. BIGWAS
High School Teacher
758-F Sampaguita St. Mintal, Davao City

PERSONAL BACKGROUND

Sex:	Female
Age:	24
Date of Birth:	November 11, 2000
Place of Birth:	Davao City
Religion:	Catholic
Nationality:	Filipino
Father's Name:	Jessie P. Bigwas
Mother's Name:	Iris Joy C. Bigwas

EDUCATIONAL BACKGROUND

Primary	**Mintal Elementary School** 2007-2013 Mintal, Davao City
Secondary	**Holy Cross of Mintal** 2013- 2017 Yellowbell, Mintal Davao City
Tertiary	**Holy Cross of Davao College** 2019-2023 Bajada, Davao City