Exploring Technical Writing Difficulties of First-Year English Major Students: Basis for IMs Development

Carlito L. Pardillo Jr[1], Abbygail E. Dogoy[2], April Mae A. Batistil[3], Desiery A. Salon[4], Janelle Rose A. Tubo[5], Eunilyn L. Cadorna[6], Erap L. Ordaneza[7]
[1,2,3,4,5,6]*Student, Monkayo College of Arts, Sciences, and Technology*
[7]*Instructor, Monkayo College of Arts, Sciences, and Technology*

***Abstract*—Technical writing is a vital academic and professional skill for English major students; however, many struggle to meet its linguistic, structural, and cognitive demands. This qualitative phenomenological study explored the lived experiences of fourteen (14) first-year English major students at Monkayo College of Arts, Sciences, and Technology (MonCAST) to identify the challenges they encounter in technical writing. Anchored in Chomsky's Language Acquisition Device and Universal Grammar theories, alongside Vygotsky's Zone of Proximal Development, the study addressed students' writing difficulties, coping strategies, and insights for skill enhancement. Data were collected through in-depth interviews and focus group discussions and analyzed using thematic analysis. Findings revealed persistent challenges in vocabulary, grammar, organization, writing confidence, and anxiety, as well as coping strategies such as AI-assisted tools, peer collaboration, and teacher feedback. These findings informed the development of structured, contextually responsive instructional materials, contributing to more effective technical writing instruction and learner support.**

***Index Terms*—Artificial Intelligence, English Major, Instructional Materials, LAD, MonCAST.**

I. INTRODUCTION

Technical writing proficiency is a critical skill for academic success, particularly in higher education, where students are expected to communicate complex information clearly and precisely. However, numerous studies highlight the significant challenges that students, especially those in English as a Second Language (ESL) contexts, encounter in mastering technical writing. These difficulties affect not only academic performance but also students' confidence and their future professional opportunities.

This study aims to explore the lived experiences of fourteen first-year English major students as they confront the complexities of technical writing. By understanding these challenges ranging from grammar and coherence to the use of technical language the findings serve as the basis for creating comprehensive instructional materials (IM) tailored to address these specific problem areas.

II. THEORETICAL LENS

This study is anchored in Noam Chomsky's Language Acquisition Device (LAD, 1965) and Universal Grammar (UG) Theory, which suggest that while humans have an innate capacity for language, mastery of complex technical structures depends on sufficient exposure and explicit instruction. Additionally, Vygotsky's Zone of Proximal Development (ZPD) (1978) emphasizes the role of guided learning, providing the necessary scaffolding to bridge the gap between a learner's independent ability and their potential achievement with appropriate guidance.

III. METHODOLOGY

The research employed a qualitative phenomenological approach to explore the lived experiences of the participants.

- Research Locale: The study was conducted at Monkayo College of Arts, Sciences, and Technology (MonCAST) in Davao de Oro, Philippines.
- Participants: Fourteen (14) first-year BSEd English students were selected via purposive criterion sampling.

- Data Collection: Information was gathered through semi-structured in-depth interviews (IDI) with seven informants and focus group discussions (FGD) with seven participants.
- Data Analysis: The researchers utilized Reflexive Thematic Analysis to identify, analyze, and report patterns within the qualitative data.

IV. RESULTS

A. Technical Writing Challenges

Five major themes emerged regarding the challenges encountered by students:

1. Bordering Vocabulary Fluency: Participants identified limited vocabulary as a significant barrier, leading to redundancy and hesitation.
2. Understanding Grammar and Sentence Structure: Issues included subject-verb agreement, verb tense consistency, and punctuation errors.
3. Organizing Orders of Ideas: Students struggled with logical sequencing, particularly in starting or ending their writing tasks.
4. Establishing Self-Confidence: This manifested as a general sense of inadequacy and fear of being misjudged by educators.
5. Writing Apprehension: Anxiety over making mistakes resulted in procrastination and overthinking.

B. Coping Mechanisms

Participants demonstrated resilience through the following strategies:

1. Artificial Intelligence Tools: Students utilized platforms like Grammarly and ChatGPT for coherence checks and error correction.
2. Peer and Instructor Guidance: Relying on feedback from classmates and validation from teachers helped clarify uncertainties.
3. Reading for Convention: Deliberate reading helped participants recognize grammatical patterns and punctuation usage.

V. DISCUSSION AND CONCLUSION

The findings highlight an interconnected web of linguistic, cognitive, and affective difficulties. While students demonstrate an inherent language capacity, the formalized demands of technical writing require explicit instruction (UG) and social scaffolding (ZPD) The acquisition of technical writing skills is a complex journey that requires the simultaneous negotiation of strict conventions and emotional regulation. Based on these insights, the development of targeted Instructional Materials (IMs) is imperative. These materials must be structured, contextually relevant, and integrated with technology in a way that promotes ethical and critical use to bolster student confidence and proficiency.

REFERENCES

[1] N. Chomsky, Aspects of the Theory of Syntax. Cambridge, MA: MIT Press, 1965.
[2] L. S. Vygotsky, Mind in Society: The Development of Higher Psychological Processes. Cambridge, MA: Harvard University Press, 1978.
[3] V. Braun and V. Clarke, Thematic analysis: A practical guide. SAGE Publications, 2022.
[4] M. Alaraj, "An Investigation into Technical Writing Difficulties, Causes and Solutions," Technium Social Sciences Journal, vol. 28, pp. 220–235, 2022.
[5] K. Anaktototy, et al., "Beyond Linguistics: Exploring the cognitive and motivational barriers to essay writing," International Journal of Language Education, vol. 7, no. 3, 2023.
[6] S. P. T. Utami, et al., "Utilization of artificial intelligence technology in an academic writing class," Contemporary Educational Technology, vol. 15, no. 4, 2023.