# DEVELOPING AN INSTRUCTIONAL AI CHATBOT-BASED WRITING MATERIAL FOR JUNIOR HIGH SCHOOL STUDENTS

**(Developmental Research on Junior High School Students of Kinderfield-Highfield School Pontianak)**

## A THESIS


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**UNIVERSITAS TANJUNGPURA**

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Submitted to Fulfil One of the Requirements for Master Degree of the
Languages and Arts Education Department of the
English Education Study Program

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The researcher wishes to express his deepest gratitude and appreciation to Dwi Riyanti, M.A., Ph.D., the first supervisor, for her invaluable guidance, unwavering support, and thoughtful feedback throughout the process of writing this thesis. Her expertise and patience have been instrumental in shaping this research from its early stages to its completion. The researcher also extends his sincere gratitude to Dr. Yohanes Gatot Sutapa Y., M.Pd., as the Head of the Masters Study Program of English Language Education and also as the second supervisor, for his continuous encouragement, insightful advice, and for providing the researcher with the direction needed to accomplish this work. His dedication and support have been deeply appreciated.

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Finally, the researcher hopes that this thesis will provide meaningful contributions to educators, students, and future researchers in the field of English language teaching. Despite its limitations, it is expected that this work will inspire further exploration and innovation in the development of effective and ethical AI-based instructional materials. Constructive feedback and suggestions for improvement are always welcomed.

Pontianak, 5 March 2026

The writer

## STATEMENT OF ORIGINALITY

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Hereby declare that this thesis is entirely my own original work and does not involve any appropriation of another person's writing or ideas presented as my own. All opinions and quotations included in this thesis have been properly acknowledged and cited in accordance with academic ethical standards.

If, at any time in the future, this thesis is proven to be the result of plagiarism, I am willing to accept any sanctions in accordance with the applicable regulations.

Pontianak, 5 March 2026

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## ABSTRACT

**Oktafiandi, Ryan. 2026. Developing an instructional AI chatbot-based writing material for Junior High School students (Developmental Research on Junior High School Students of Kinderfield-Highfield School Pontianak)**

**Supervisor 1:** **Dwi Riyanti, M.A., Ph.D.**

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This developmental study aimed to create an instructional AI chatbot-based writing material to support English process writing for seventh and eighth-grade students at Kinderfield-Highfield School, Pontianak. Employing Branch's ADDIE model (Analysis, Design, and Development phases), the study involved 41 students in a needs analysis and syllabus review, followed by the development of four fine-tuned AI chatbots representing pre-writing, drafting, revising, and editing stages, integrated into a Google Site platform via N8N and ChatGPT-4.0 API. The product features four distinct chatbots with specific roles and constraints designed to promote learner autonomy and prevent over-reliance by guiding rather than replacing student writing. Expert validation from an English teacher and an IT developer confirmed the material's appropriateness as a supplementary writing tool, fulfilling criteria identified in the needs analysis. Minor revisions of two appointed experts were suggested for visual elements and user guidance. This study concludes that the instructional AI chatbot-based writing material is suitable to be used in addressing students' writing needs by providing stage-specific, personalized support while maintaining academic integrity.



***Keywords: AI chatbots, process-oriented writing, instructional material development, EFL writing, learner autonomy***

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# CHAPTER 1

# INTRODUCTION

This chapter provides a general explanation of the research. There are some points elaborated in this section, including the background of the study, identification of the problems, limitations of the problems, formulation of the problems, objectives of the study, and significance of the study.

## 1.1 Background

Becoming an English teacher in a bilingual school presents unique challenges. Although students use English as a medium of instruction, it is still possible that some students struggle with all skills, including writing. In the initial observations of teaching the seventh and eighth grade students at Kinderfield-Highfield School in Pontianak, the researcher noticed a recurring challenge: students often lacked confidence in their writing tasks. This manifested in several ways, most notably through frequent questions asking for clarification on instructions and specific tasks. It becomes clear that they struggled with organizing their thoughts, leading them to take longer than expected to complete assignments. When they were asked to write, many students seemed unsure of what to write about, indicating a lack of direction and confidence in their writing abilities. This pattern not only affected their writing speed but also their engagement with the task, as they seemed hesitant to begin or continue without constant assistance from the researcher.

To address the challenges faced by students in developing writing skills, particularly in bilingual settings in Kinderfield-Highfield School Pontianak, innovative solutions are being explored. The integration of Artificial