

# Chapter 12

## Using AI–Powered Grammar Correction Tools to Support ESL Students' Writing Skills Development

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### **ABSTRACT**

*The purpose of this study is to examine how AI grammar correction tools can improve the writing abilities of GFP students at the University of Technology and Applied Sciences-Suvar. A focus group discussion and classroom observations were conducted as part of the study. We observed two classes, one in the classroom and one in the computer lab, where students used AI grammar tools. During the focus group, students discussed both traditional instruction and artificial intelligence tools. Combining both approaches led to students becoming more engaged with their writing, moving from passive acceptance of AI suggestions to critical engagement. Despite some technical challenges, students reported increased confidence and independence in their writing. Additionally, teacher guidance was found to be crucial alongside the use of AI tools. Using artificial intelligence grammar tools in conjunction with traditional instruction results in an effective learning environment, however proper support and training are required for implementation to be successful.*

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## INTRODUCTION

There has been a significant change in the way education is delivered, including the way languages are taught due to advancement in Technology (Afendi et al., 2022). This research looks at how students, in the General Foundation Program at the University of Technology and Applied Sciences - Suhar Branch, perceive the use of AI grammar correction tools and the traditional way of learning grammar in order to improve their writing skills. At UTAS-Suhar, students must demonstrate strong writing abilities to succeed in their academic programs, whether in Engineering or Information Technology departments. In addition to traditional grammar instruction, AI-powered tools offer new opportunities for developing writing skills. Using these tools in combination with conventional teaching methods, this study explores how to help students become more independent learners who can correctly identify and correct their writing errors. In this study, we aim to understand how AI grammar tools contribute to ESL students' writing development by examining students' experiences, challenges, and perceptions.

Nowadays, English has become the lingua franca of international communication, academia, and business (Jaramillo et al., 2020). English proficiency has become more than just a personal goal for non-native speakers; it is often a requirement for academic and professional success. According to research, while English proficiency is attainable, writing is a particularly challenging part of the process (Baharudin et al., 2023). It is common for ESL learners to have ideas for an important essay in their minds, but the fear of making grammar mistakes looms large. Globally, ESL writers face this challenge every day, indicating the urgent need for effective support systems.

Language learning has undergone a technological revolution over the last decade, as AI-powered tools have transformed the experience. One of the most fascinating innovations is the AI-powered grammar correction tools which stand out as particularly promising for ESL writers. With these tools, ESL learners can receive real-time, personalized grammar advice, ranging from writing assistants to integrated word processors (Rebolledo Font de la Vall & González Araya, 2023).

The question is, what exactly are these AI grammar tools, and how do they work? A key feature of these systems is the use of natural language processing and machine learning algorithms to analyze text, identify errors, and suggest corrections. Park (2019) mentioned that AI grammar tools are different from traditional spell-checkers as they can understand context, detect nuanced language errors, and even suggest style changes.

For students learning English as a second language, these tools have the potential to be very beneficial. This would be like having a tireless writing teacher available 24/7, offering immediate feedback on grammar, word choice, and sentence structure.

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