

CHAPTER I

INTRODUCTION

This chapter consists of the background, research questions, research purposes, research significances, research scope, conceptual framework, and previous studies.

A. Background

As technology continues to advance at an unprecedented rate, integrating artificial intelligence (AI) tools into education has become a topic of great interest and potential. Imagine that the classroom where textbooks and traditional lessons are supplemented by intelligent virtual tutors, engaging students in interactive grammar lessons. This scenario represents the future of education, in which AI plays a central role, changing the way students learn English grammar. In this context, understanding students' perceptions of using AI for English grammar skill mastery becomes not only an academic activity but also essential for navigating the changing educational landscape.

According to McCarthy (McCarthy, 2007), one of the founders of AI, the science and engineering field known as AI focuses on building intelligent machines, particularly computer programs. AI refers to the use of computer systems to simulate human intelligence processes. This includes machine learning, natural language processing, and problem-solving capabilities that allow machines to mimic human-like cognition. This innovative technology finds important applications in the education sector, ushering in a new era commonly referred to as AI in education.

(AI)-driven technologies are improving engagement, accessibility, and results in schools all around the world. These tools range from chatbots that answer questions to intelligent tutoring systems that adjust to students' unique learning styles. Among the AI-powered writing assistants, Grammarly is a widely used tool that provides users with grammar and spelling corrections,

style suggestions, and writing improvements. To assess Grammarly's potential as a valuable resource for learning grammar and improving writing.

English grammar is essential to language learning because it gives students the frameworks and rules they need to communicate effectively (Lin, Hwang, Fu, and Cao, 2020; Amalia, Abdullah & Fatimah, 2021). Extensive practice activities, teacher explanations, and textbooks are the mainstays of traditional grammar training. In addition, technology influences individuals in various aspects. Technology including computers, the internet, wireless devices, and social networks have transformed people's lifestyles regardless of age or gender (Hanafizadeh et al., 2017). Mubarok and Syafi'i (2020) said that grammar helps people such as teachers, educators, and scientists to describe and understand how computer software is used such as it can lead to teaching and learning English when errors are found.

New opportunities for enhancing grammar learning are presented by the incorporation of AI tools such as Grammarly. Grammarly is a grammar and spell checker app that can be used directly through a web browser, desktop, or linked to Microsoft Office Word. It offers grammar, spell check, and plagiarism detection features that can be accessed online via devices, PCs, or laptops.

It is a website for online proofreading that the user can use to check errors such as grammar. Ghufroon and Rosyida (2018) claimed that in addition, errors are fixed in speech, punctuation, language usage, synonyms, and plagiarism detection. Grammarly's AI-powered features, which include real-time spelling and grammar correction, style recommendations, and clarity improvements, may help students become more proficient writers and grammar users. It also provides fixes for plagiarism detection, synonyms (vocabulary usage), and punctuation. Grammarly's artificial intelligence (AI) system blends multiple methods of natural language analysis with deep learning. It is important to understand students' perceptions of Grammarly's use of AI in English grammar skill mastery.

The students in class A in the sixth semester of English education Department at UIN Sunan Gunung Djati Bandung use Grammarly's AI because

they only know Grammarly other than AI for grammar checker. Apart from that, the students use Grammarly for checking their grammar because Grammarly is easy to use than traditional or manual method in grammar, the students have struggle and takes time longer in checking their grammar if they use traditional or manual method.

There are several research results regarding the use of Grammarly's AI for English grammar skill mastery. First, Awalin et al (2023) shows that students at the State Islamic University of Sayyid Ali Rahmatullah Tulungagung using AI especially Grammarly for grammar learning. The study comprised a total of 20 participants, including 12 males and 8 females. The study utilized a mixed-methods approach to investigate students' perceptions of the impact of Grammarly, an AI-powered writing assistant, on English grammar. According to the results, the students showed a positive perception of Grammarly's grammar suggestions, error avoidance capabilities, and satisfaction with it as a grammar tool.

Second, Fitriana et al (2022) show that student using Grammarly to check the grammar for their writing. 30 participants were selected to serve as sample technicians. The descriptive qualitative method was used in this research. The research findings demonstrated that Grammarly is helpful to students and that it actually helps them in correcting their writing.

However, this study is different from previous research (Awalin et al, 2023; Fitriana et al, 2022). Both studies reach the similar conclusion that the use of Grammarly's AI can make students understand about grammar. While previous research Awalin et al (2023) used mixed-methods design and Fitriana et al (2022) used descriptive qualitative method, this research focus on a case study design.

B. Research Questions

This study explores students' perceptions of using Grammarly's AI for English grammar skill mastery. As a result, the researcher develops two connected research questions concerning the title. The following two research questions are:

1. What are the students' perceptions of using Grammarly's AI for English grammar skill mastery?
2. What are the advantages that the students get when using Grammarly's AI for English grammar skill mastery?
3. What are the challenges faced by the students when using Grammarly's AI for English grammar skill mastery?

C. Research Purposes

Based on the questions research above, the research aims to achieve the following two goals:

1. To find out the students' perceptions of using Grammarly's AI for English grammar skill mastery
2. To find out the advantages that the students get when using Grammarly's AI for English grammar skill mastery
3. To find out the challenges faced by the students when using Grammarly's AI for English grammar skill mastery

D. Research Significances

In grammar learning, students try to comprehend language rules, apply them accurately, and enhance their communication skills. Therefore, they use Grammarly's AI s to assist in proofreading, suggesting corrections, and providing real-time feedback on grammar, spelling, and writing style. This research focuses to explore students' perceptions about whether this application plays an important role for their English grammar skill mastery. The results of this investigation should help Grammarly's AI both theoretically and practically.

Theoretically, this research provides benefits and becomes a source of knowledge about exploring students' perceptions of using Grammarly's AI for English grammar skill mastery. This research is expected to be a good and useful source of information in the academic field at universities, especially in the field of grammar and how students use the Grammarly's AI for mastery their English grammar skill.

Practically, the use of the Grammarly's AI is projected to bring various benefits, such as to enhance students' writing skill, foster a more accurate application of grammar rules, and streamline the proofreading process. Furthermore, it can result in improved language skills, increased confidence in written expression, and a more efficient learning experience for students.

E. Research Scope

This study discussed the students' perceptions of using Grammarly's AI for English grammar skill mastery. This investigation was conducted with students of class A in the sixth semester of the English Education Department at UIN Sunan Gunung Djati Bandung who were familiar and used Grammarly's AI for grammar course. This study used qualitative method and case study approach.

F. Conceptual Framework

English grammar is essential for effective communication. English grammar also plays an essential role in developing one's language knowledge and social skills in context (Lin, Hwang, Fu, and Cao, 2020; Amalia, Abdullah & Fatimah, 2021). English grammar is a set of rules and structures governing the composition of sentences, phrases, and words in the English language. According to Greenbaum, S and Nelson (2002) English grammar is a set of rules used to organize words into larger units. Cowan (2008) stated that a language's grammar is a set of rules that specify how words and word groups can be combined to create sentences. Grammar also includes elements like punctuation, spelling, and usage conventions, contributing to effective

communication and understanding. In addition, by understanding English grammar aids in conveying ideas accurately, promoting clarity and coherence in written and spoken language.

Artificial Intelligence (AI) in education refers to the integration of advanced technologies, particularly AI algorithms and machine learning, to enhance and personalize the learning experience. Additionally, AI may provide real-time feedback on a variety of language learning topics, including writing abilities, grammar, vocabulary, and pronunciation. AI-powered systems and apps are able to evaluate students' answers and give them instant feedback, which helps them focus on their language learning objectives and find areas for development. (Godwin-Jones, 2022; Han, 2019; Huang et al., 2023; Kholis, 2021).

Grammarly is kind of AI for grammar leaning. Grammarly is touted as the world's most accurate English grammar checker. For Cavaleri and Dianati (2016) Grammarly has various advantages, including Grammar Checker, Proofreading, and Plagiarism. With Grammarly's suggestions for accurate spelling, users' vocabulary will expand as a result of the application's input on right spelling, which enhances sentence context and fixes word usage problems. With Grammarly's suggestions for accurate spelling, users' vocabulary will expand as a result of the application's input on right spelling, which enhances sentence context and fixes word usage problems.

Perception is crucial in educational practice and study. Rakhmat (2000) said that perception is the understanding of a thing, event, or connection that results from memory recall and message interpretation. It provides context for the stimulus-response process of recapping information and predicting messages, which includes memory, motivation, hope, and attention.

G. Previous Studies

There are several studies regarding the use of Grammarly's AI for English grammar skill mastery. The first research conducted by Awalin et al., (2023). This study investigates how students view Grammarly, an AI-powered writing assistance, in relation to English grammar. Surveys and interviews were used in

a mixed-methods approach to gather data from a wide range of students in various educational institutions. The research involved a sample of 20 undergraduate students majoring in English Education in the State Islamic University, total of 20 participants, including 12 males and 8 females. The results present several viewpoints, emphasizing the benefits, difficulties, and consequences of using Grammarly as a grammar assistance in language instruction.

The second research was conducted by Sofyan and Nasution (2023). This study aims to explore the effect of using Grammarly application as a translation tool to improve the students' translation quality. The type of this research is qualitative research with the case studies approach. The conclusion is Grammarly will be an excellent translation tool to improve students' translation quality if accompanied by the students' sufficient background skill and knowledge.

The third research was conducted by Yurika et al., (2023). The aim of this study was to investigate students' perceptions of using Grammarly Premium during the writing process. The present study employed a qualitative research approach to gather insights into students' attitudes towards the utilization of Grammarly Premium during the writing process. The Faculty of Languages and Literature at Universitas Negeri Makassar is where this study was carried out. Six research participants, who are presently enrolled in the seventh semester of the 2022–2023 academic year, have used Grammarly premium versions for a variety of writing-related objectives. According to the findings, students had both positive and negative opinions about using Grammarly Premium.

And the last research was conducted by Fitria (2021). The purpose of this paper is to provide EFL students with an overview of "Grammarly" an AI-powered English writing assistant. Qualitative descriptive research is used in this study. In order to gather data for this study, document analysis was used. In conclusion, AI can precisely repair documents.

However, this research is different from previous research. This research focuses on exploring students' perceptions of using Grammarly's AI for English

grammar skill mastery. After that, in addition to exploring student perceptions, this research will also reveal how students use the Grammarly's AI, the advantages and the challenges students face when using Grammarly's AI. Other than that, this research differs from previous research in terms of participants, location, research methodologies, and research instruments. Previous research focused on improving students' writing skills through Grammarly's AI, while the focus of this research is to explore students' perceptions of using Grammarly's AI for English grammar skill mastery.

