

CHAPTER III

METHODOLOGY

In this chapter, the study aimed to present the design, participants, and context of the study, the instrument used, data collection methods, and data analysis procedures.

3.1 Research Design

The study employed a mixed-method sequential explanatory design to collect and analyze quantitative data. Subsequently, qualitative data was utilized to elucidate or expand upon the findings of the quantitative data (Cresswell, 2017). The designs were formulated, and notation was incorporated to assist the reader in comprehending the designs; challenges to working with the designs arose. The explanatory sequential mixed method is one in which the researcher conducted quantitative research, analyzed the results, and then expanded on the findings by explaining them in more detail through qualitative research. It was considered explanatory because the initial quantitative data results were further elucidated with the qualitative data (Cresswell, 2017).

3.2 Participants and Context of the Study

The participants of this study were 8 EFL students majoring in English Education who were enrolled in 2019. The recruitment was based on inclusion criteria (Koltovskaia, 2020), such as the students being L2 learners of English, taking a writing course in which they were required to produce a multiple-draft assignment, and having used Grammarly before. The following participants had passed the inclusion criteria.

Table 3.1 Participant's Profile

Name of Participants	Gender	Age	Semester
P1	Female	21	6
P2	Male	20	6
P3	Male	20	6
P4	Female	21	6
P5	Male	21	6
P6	Female	21	6
P7	Female	22	6
P8	Female	21	6

3.3 Instrumentations

The researcher had used a closed-ended questionnaire (Krosnick, 2018), essay documents, and reflections ((Nguyen, Fernandez, Karsenti, & Charlin, 2014) to gather the data. The closed-ended questionnaire was distributed via WhatsApp using a Google Form to elicit the students' perceptions of using Grammarly. Google Form reduced the challenge of participants needing to be familiar with the interface, as it was highly intuitive (Opara, Spangsdorf, & Ryan, 2021). The instruments were applied in an online way using the WhatsApp application. The main reason was that participants were quick to fill in and answer the questions and facilitated the researcher in finding and coding the data. The spreading of these instruments was conducted for a myriad of procedures; firstly, the questionnaire sheet in Google Form was spread through WhatsApp one by one. Meanwhile, the essay task

documents were taken from the students who had completed writing courses in which they were required to produce a multiple-draft assignment and were analyzed to get the data.

The reflection consisted of students' answers or responses to questions about using Grammarly in proofreading essay tasks. Various disciplines, including education, professional development, and psychology, often used reflection to reorganize knowledge and emotional orientation to achieve further insight (Moon, 2006). The reflective process made people think critically, which was important because it helped create new relationships between initial knowledge and what was obtained. It made writing reflection more effective (Creswell & Creswell, 2018). The outcome from the reflection could be something expected or unexpected due to the complicated and ill-structured ideas (Moon, 2006). Therefore, from the reflection, we could gather many ideas or responses from the students that would enrich the data.

Table 3.2 Example of Questions for Questionnaire

No	Statements	Strongly Agree	Agree	Disagree	Strongly Disagree
1	Grammarly was easy to use				
2	I did not need a technical person to help me use the Grammarly				
3	The various functions in this system were well integrated				
4	Grammarly provided understandable feedback				

No	Statements	Strongly Agree	Agree	Disagree	Strongly Disagree
5	Grammarly gave detailed feedback				
6	Grammarly did not give misleading feedback in this system				
7	Grammarly has helped me to save time in revising my writing				
8	Grammarly has helped me improve my writing				
9	Grammarly has helped me improve my confidence in doing my essay				

Table 3.3 Examples of Questions for Reflection

No.	Questions for Interview Data	Indikator
Q1	Pada pertanyaan pertama anda sangat setuju bahwa Grammarly mudah digunakan. Berikan penjelasan kemudahan seperti apa yang anda maksudkan? Apakah kemudahan penggunaan atau proses instalasi? Atau penggunaan Grammarly di berbagai platform? Jelaskan!	
Q2	Anda menginstall aplikasi Grammarly lewat apa? Apakah anda menjalankan Grammarly menggunakan web based, windows atau android? Siapa yang instalkan? Dapat rekomendasi dari mana? Jelaskan!	

No.	Questions for Interview Data	Indikator
Q3	Fitur-fitur apa saja yang ada di Grammarly? Ada berapa fitur yang anda tahu di Grammarly? Jelaskan!	
Q4	Feedback seperti apa yang Grammarly berikan? Apakah feedback tersebut membantu anda meningkatkan kemampuan menulis dan kepercayaan diri anda dalam mengerjakan tugas esai? Jelaskan!	
Q5	Apakah Grammarly memberikan feedback yang keliru? Jelaskan!	
Q6	Berapa kali anda melakukan input untuk dokumen yang sama di Grammarly? Berapa lama waktu yang anda habiskan untuk merevisi tulisan anda di Grammarly? Apakah itu menghemat waktu anda? Jelaskan?	

3.4. Data Collection

Data on the students' perceptions were collected using a questionnaire (Krosnick, 2018). The questionnaire consisted of 9 statements constructed as Likert scales with four options: strongly agree, agree, disagree, and strongly disagree. Four options were used to pose a specific tendency so that the students' responses could be identified clearly. The nine statements were intended to know the students' perception of two aspects: the practicality of Grammarly use (3 statements) and the Grammarly feedback (6 statements). Then, the researcher spread the reflections to students who were chosen randomly. The researcher took the student's essay task

documents using WhatsApp for the documentation. The results of the questionnaire were supported and explained by the reflection data. Following the collection of data, the researcher interpreted the analytic results. Lastly, the researcher explained the conclusion reached due to the data analysis.

3.5. Data Analysis

Data were analyzed based on the students' responses to each statement. This study applied descriptive statistics using Fisher and Marshall (2009) and inferential statistics (Asadoorian & Kantarelis, 2005). A descriptive statistic was used to see the frequency and percentage of the students; responses were categorized into positive or agree, including "strongly agree" and "agree" responses, and negative or disagree, including "disagree" and "strongly disagree" responses. Fisher and Marshall (2009) also stated that descriptive statistics are a helpful strategy that allows us to reduce participant data into a summary number, thus making meaning from the results. At the design stage of the research project, the researcher had to consider the data required to adequately address the research question and recognize the respective measurement levels. Meanwhile, inferential statistics were used to infer from the sample group generalizations that could be applied to a wider population.

The methods of this data analysis were conducted for a myriad of procedures. Initially, descriptive statistics methods were employed to capture the essential features from sample data using tables, charts, and graphs. Subsequently, the sampling distributions were described, paving the way for inferential statistics, which allowed conclusions about the entire population from which the sample was drawn (Stapor, 2020).

For the students' reflection, the gathered data was analyzed using the technique of analyzing data by Miles, Huberman, and Saldana (2014). To begin with, in data condensation, the researcher decided which data chunks to code and which to pull out. After that, data was summarized, highlighted, and were created into groups and partitioned (categorized), and also took note of several essential answers (coded) to obtain similar perceptions from the students. Miles et al. (2014) noted that data condensation included writing summaries, coding, developing themes, generating categories, and writing analytic memos. This stage of analysis was also supported by Jackson et al. (2007), who stated that qualitative content analysis involved interpreting, theorizing, or making sense of data by first breaking it down into segments that could be categorized and encoded and then building patterns for the entire data set by linking categories to each other. As Saldana (2016) concluded, a code was a word or short phrase that symbolically assigned a summative, salient, essence-capturing, and evocative attribute for a portion of language-based or visual data. The example of data coding is as follows:

Table 3.4 The Example of Data Coding

Reflections	Sub Themes/Codes	Tone	Case	Parent Themes	Result Analysis
Saya pikir memasang Grammarly di windows maupun android itu mudah. Sama seperti pemasangan aplikasi lainnya. Selain itu beberapa fitur dalam grammarly juga mudah dipahami. Namun kebanyakan memang mudah dipahami, hanya beberapa saja yang membuat saya bingung. Juga karena saya menggunakan grammarly premium dengan biaya yang terbilang sangat murah. (P1)	Ease of Use	Positive	In this case, the speaker is discussing the ease of installing and using the Grammarly application on both Windows and Android devices. They mention that most of the features are easy to understand but there are a few that are difficult to understand. The speaker also mentions that the premium version of Grammarly is relatively inexpensive.	Ease of Use	This paragraph speaks about the Grammarly application and how it is easy to install and use on both Windows and Android devices. The speaker mentions that the majority of features are easy to understand but there are a few that are more difficult to comprehend. They also point out that the premium version of Grammarly is relatively inexpensive, making it a great option for those who are looking to upgrade their writing skills. The speaker is likely emphasizing how accessible and affordable Grammarly is, making it a great option for anyone looking to improve their writing.
Kemudahan yang saya maksud adalah kegunaan saat menggunakan grammarly pada tahap proofreading. Grammarly sangat membantu mempermudah saya untuk melihat kesalahan-kesalahan draft saya. Seperti kesalahan grammar, spelling, capitalization, dan lain sebagainya. Tak hanya itu, saya menginstall aplikasi ini di keyboard saya agar saat mengetik, kesalahan grammar	Convenience of using Grammarly	Positive	This case is about how Grammarly can help in proofreading. It can detect grammar, spelling, capitalization, and other errors in the draft. The person also installed the application in their keyboard so that any grammar errors can be	Efficiency & Accuracy	This case is about the use of Grammarly as a proofreading tool. Grammarly is a software application which can be used to detect and correct errors in written documents. It can detect grammar, spelling, capitalization, and other types of errors in any given draft. The person in this case has gone the extra mile and installed the application into their keyboard, so that any time they type something, Grammarly will check for any grammar errors and correct them. This is a great way to ensure that any

saya sudah tidak ada karena sudah di proofread grammarly. (P2)			proofread by Grammarly while they type.		documents one is working on are free from any errors, and that they are of the highest quality.
Grammarly sangat mudah digunakan terutama memudahkan penggunanya memakai aplikasi tanpa ribet selain itu juga dapat mendeteksi grammar eror dengan cepat. (P3)	Ease of Use	Positive	Grammarly is easy to use, especially making it convenient for its users to use the application without any hassle. Moreover, it can quickly detect grammar errors.	Convenience	Grammarly is an easy-to-use application that can be used without any difficulty. It has been designed to make it simple and convenient for its users to use the application. Additionally, it is capable of detecting grammar errors rapidly, which is a great advantage for people who need to ensure their written work is free of errors. Grammarly can help to save time by quickly identifying mistakes in writing so that they can be corrected and the finished product can be of a higher standard. Furthermore, Grammarly can be used on a range of different devices, making it accessible to a wide range of people. This makes it an extremely useful and versatile tool for those who wish to improve their written communication.
Saya sangat setuju bahwa grammarly mudah digunakan karena pengaplikasiannya yang mudah bagi para pemula dan informasi dalam fitur-fitur yang tersedia sangat jelas sehingga tidak menimbulkan kebingungan saat penggunaannya. Untuk proses instalasinya, agak membingungkan sehingga harus melihat tutorial saat menginstalnya. (P4)	Usability of Grammarly	Positive	The case described in the paragraph is about the ease of use of Grammarly. It is easy for beginners to use due to the clear information in the features, but the installation process can be confusing and requires looking at tutorials.	Ease of Use	This case study is about the user-friendliness of Grammarly, a grammar and spell-checking software. The features of Grammarly are intuitive and easy to understand, making it suitable for beginners. However, the installation process can be difficult to comprehend, requiring users to look up tutorials to understand how to properly install the software. As a result, the ease of use for Grammarly depends on the user's level of understanding and ability to follow instructions.