



CHAPTER III

RESEARCH METHODOLOGY

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This chapter outlines the research design, the research subjects and location, the data sources and data, the research instrument, the data collection methods, and the data analysis procedures.

3.1 Research Design

This study employed a descriptive qualitative research design with an implementation approach. Descriptive qualitative research aims to provide a systematic and factual description of a phenomenon as it naturally occurs by focusing on participants' activities, experiences, and interactions within a particular context (Furidha, 2024). This design was chosen because the study sought to describe the implementation of QuillBot Grammar Checker AI in recount text writing activities and the benefits experienced by students during the writing revision process.

Data were collected through classroom observations, students' writing documents, and questionnaires. Classroom observations were conducted to describe the implementation of QuillBot Grammar Checker AI during writing activities, while students' writing documents were analyzed to identify grammatical revisions related to past tense forms. Questionnaires were administered to obtain students' responses regarding the benefits of using QuillBot Grammar Checker AI during the revision process. Accordingly, this study did not aim to measure the effectiveness of the tool or establish causal relationships, but rather to provide a contextual description of its implementation in the EFL writing classroom.

3.2 Research Setting and Subjects

3.2.1 Research Setting

This study was conducted at SMK Wachid Hasyim 1 Surabaya, East Java, located at Jalan Sidotopo Wetan Baru No. 37, Kenjeran, Surabaya, East Java, 60128. The school was selected because the English

teacher had implemented recount text writing as part of the Grade X English curriculum and provided an appropriate setting for observing the implementation of QuillBot Grammar Checker AI during writing activities. Conducting the study in a vocational high school also provides a contextual description of AI-assisted writing support in an EFL classroom.

Data collection was carried out over four meetings on April 22, April 23, April 29, and April 30, 2026, following the school's academic schedule. During the research process, the researcher observed the implementation of QuillBot Grammar Checker AI in recount text writing activities, collected students' writing documents before and after the revision process, and administered questionnaires to identify the benefits of using the tool. These data provided a comprehensive description of the implementation of QuillBot Grammar Checker AI in the writing classroom.

3.2.2 Research Subject

The research subjects of this study were all 26 students of Grade X Manajemen Perkantoran (Office Management) 3 at SMK Wachid Hasyim 1 Surabaya. The students were English as a Foreign Language (EFL) learners at the vocational high school level. The class was selected based on the recommendation of the English teacher because it had implemented recount text writing as part of the English learning activities and provided an appropriate context for observing the implementation of QuillBot Grammar Checker AI during the writing revision process.

All 26 students participated in the classroom observation, writing activities, questionnaire, and writing document analysis. Consequently, all students' writing documents were analyzed to describe the use of grammatical past tense forms before and after the implementation of QuillBot Grammar Checker AI, while the questionnaire was administered to identify the benefits experienced by students during the writing revision process. The inclusion of all students enabled the researcher to obtain a comprehensive description of the implementation of QuillBot Grammar Checker AI in the classroom.

3.3 Research Instrument

In qualitative research, the researcher served as the primary instrument for collecting, interpreting, and analyzing the data (Atmowardoyo, 2018). To support the data collection process, this study employed several research instruments, namely students' writing documents, classroom observation, questionnaires, and semi-structured interviews. The supporting instruments used were:

3.3.1 Students' Writing Documents

Students' recount text writing documents consisted of the initial drafts and the revised drafts produced during the implementation of QuillBot Grammar Checker AI in the writing revision process. All writing documents from the 26 students were collected and analyzed. Before the analysis was conducted, the writing analysis instrument used to identify grammatical past tense forms and grammatical inaccuracies had undergone expert judgment validation.

The writing documents were analyzed to describe students' use of grammatical past tense forms before and after the revision process, as well as the grammatical revisions that appeared after students used QuillBot Grammar Checker AI. The analysis focused on grammatical aspects observed in the students' recount texts, including verb forms, auxiliary verbs, capitalization, punctuation, spelling, sentence structure, and tense consistency based on Quillbot Grammar Checker AI qualification that already being validated by the expert judgement. These writing documents provided evidence of how QuillBot Grammar Checker AI was implemented during the writing revision process.

3.3.2 Questionnaire

The questionnaire was used to obtain supporting information about students' experiences in using QuillBot Grammar Checker AI during the recount text writing revision process. The responses complemented the writing document analysis by providing information on how students used the grammar checker feature when identifying and revising grammatical past tense inaccuracies. The questionnaire was administered through Google Forms to facilitate data collection and

distribution (Heryati, 2024). It was adapted from Heryati (2024) Before being distributed, the questionnaire underwent expert judgment validation by an expert in English language education to ensure that the statements were relevant, clear, and aligned with the objectives of this study.

The questionnaire consisted of 15 statements organized into five sections: (1) Tool Usage and Interface Usability (Items 1–3), (2) Detection and Correction of Grammatical Inaccuracies (Items 4–6), (3) Students' Grammatical Understanding of the Feedback (Items 7–9), (4) Application of Grammatical Feedback During Writing (Items 10–12), and (5) Overall Understanding of the Grammatical Feedback (Items 13–15). Each statement was rated using a five-point Likert scale ranging from Strongly Agree (SA) to Strongly Disagree (SD).

The questionnaire was distributed to all 26 students of Grade X Manajemen Perkantoran 3 after the writing revision activities had been completed. The responses were used as supporting data to describe the implementation of QuillBot Grammar Checker AI and the benefits experienced by students during the writing revision process.

3.3.3 Observation

Observation was used to obtain contextual information that supported the data collected from the students' writing documents and questionnaires. During the classroom writing activities, the researcher observed how the English teacher introduced QuillBot Grammar Checker AI and guided students in using the Grammar Checker feature during the revision process. The observation also focused on students' participation, their responses while reviewing grammatical feedback, and the overall classroom learning activities. Field notes were taken throughout the observation to document classroom interactions, students' engagement, and other relevant information that supported the interpretation of the research findings.

3.4 Data and Source of Data

The data in this study were obtained from three sources: students' writing documents, questionnaire responses, and observation field notes. The students' writing documents consisted of the initial and revised recount texts produced during the classroom writing activities using QuillBot Grammar Checker AI. These documents were used to describe students' use of grammatical past tense forms and the grammatical revisions made during the writing process.

The questionnaire responses provided information regarding students' responses to the use of QuillBot Grammar Checker AI during the writing revision process. Meanwhile, the observation field notes documented classroom activities, including the teacher's guidance, students' participation, and the use of QuillBot Grammar Checker AI throughout the writing lessons. Together, these data sources provided a comprehensive description of the classroom activities and supported the interpretation of the research findings.

3.5 Data Collection Technique

This study employed three data collection techniques: document collection, questionnaire distribution, and classroom observation. Each technique was used to obtain data related to students' recount text writing activities and their use of QuillBot Grammar Checker AI during the writing revision process.

First, students' recount text writing documents were collected during the classroom writing activities. Before the lesson was conducted, the researcher discussed the classroom procedures and the use of QuillBot Grammar Checker AI with the English teacher to ensure that the learning activities followed the planned research procedures. During the lesson, students first wrote a recount text individually based on the assigned topic. After completing the first draft, students revised their writing using QuillBot Grammar Checker AI under the teacher's guidance. Both the initial and revised drafts from all 26 students were collected for analysis to describe students' use of grammatical past tense forms and the grammatical revisions made during the writing process.

Second, a questionnaire was distributed to all 26 students after the writing activities had been completed. The questionnaire consisted of

15 statements measured using a five-point Likert scale, ranging from Strongly Agree (SA) to Strongly Disagree (SD). The responses were collected through Google Forms to obtain supporting information regarding students' use of QuillBot Grammar Checker AI during the writing revision process.

Third, classroom observation was conducted throughout the learning activities. The researcher acted as a non-participant observer and recorded the classroom activities, including the teacher's guidance, students' participation, and students' use of QuillBot Grammar Checker AI during the writing revision process. Observation field notes were written during each meeting to document contextual information that supported the interpretation of the research findings.

3.6 Data Analysis

The data in this study were analyzed using descriptive qualitative analysis to describe EFL students' use of grammatical past tense in recount text writing and their use of QuillBot Grammar Checker AI during the writing revision process. Data obtained from the writing documents, questionnaires, observation field notes, and interviews were analyzed systematically through the following stages.

A. Data Consideration

At this stage, the researcher organized and prepared all collected data before conducting the analysis. The data were classified according to their sources to facilitate interpretation and triangulation.

1. Writing Document Data

The researcher organized students' recount text writing documents collected during the classroom writing activities. The writing documents were carefully examined to identify grammatical past tense use and the types of grammatical inaccuracies found in the texts. The identified errors were then classified according to their characteristics, while information unrelated to the focus of the study was excluded from further analysis.

2. Questionnaire Data

The completed questionnaires from all 26 students were compiled and organized. Responses to the 15 statements were grouped according to the five questionnaire sections: accessibility of QuillBot Grammar Checker AI, functionality of QuillBot Grammar Checker AI, use of QuillBot Grammar Checker AI in identifying grammatical past tense inaccuracies, use of QuillBot Grammar Checker AI during the writing revision process, and students' experiences in using QuillBot Grammar Checker AI. The questionnaire data were summarized to provide supporting information for interpreting the findings obtained from the writing documents, observations, and interviews.

3. Observation Data

The researcher reviewed the field notes from all classroom observation sessions. The notes were organized to identify information related to the classroom writing activities, students' use of QuillBot Grammar Checker AI, and other classroom situations relevant to the research focus.

B. Data Display

After the data had been organized, the researcher presented the findings descriptively in the form of narrative explanations. The findings were supported by excerpts from students' writing documents, questionnaire responses, observation field notes, and interview transcripts. Presenting the data in this way enabled the researcher to describe patterns of grammatical past tense use and to relate the findings obtained from the different data sources.

C. Conclusion Drawing and Verification

At the final stage, the researcher drew conclusions based on the findings obtained from all data sources. The conclusions were developed by interpreting the patterns identified in the writing documents and relating them to the information obtained from the questionnaires, classroom observations, and interviews. To enhance the credibility of the findings, the researcher continuously verified the conclusions through

methodological triangulation by comparing information obtained from the four data sources. The conclusions were considered credible when similar findings consistently appeared across the writing documents, questionnaires, observation field notes, and interview data.

