

CHAPTER III

RESEARCH METHOD

A. Research Design

Qualitative research is a structured process of observing and evaluating certain phenomena in their natural settings. On the other hand, a qualitative approach pursues knowledge of meaning, experiences, and perspectives of individuals or groups—contrary to a quantitative approach, which often relies on numerical values and measurements. This is, therefore, both a descriptive and interpretive method that seeks to capture events and phenomena representatively but also makes clear their meaning and implications.

This produces extensive and comprehensive information as a result of engaging in qualitative research. In the case of textual data, in-depth and contextual understanding imparts richness and specificity. In qualitative research, which follows an inductive approach and thus emphasizes exploration over testing, data collection is conducted prior to the analysis phase. The researcher seeks to identify relationships, concepts, and patterns within the data rather than imposing theoretical frameworks onto it. Generally speaking, qualitative research is holistic and in-depth in the exploration of experiences and events, providing insights that are immensely valuable for deepening findings from quantitative methods of data collection.

Content analysis can be viewed as a methodological approach to the examination and interpretation of texts, images, and audio materials. It usually

involves basic steps of coding and classification that prove quite fundamental in the process of content analysis meant for discovering patterns and themes and the meanings that are embedded in the data. This methodology has become one of the most used ways in content analysis studies to prove the existence, the frequency, and the interrelations of certain concepts in different sorts of contents within social sciences, media studies, communication, and marketing. Content analysis research is, actually, an evolutionary approach; it is a more developed technique comparing with previous ones according to Krippendorff (2018). Content analysts view the social contexts from a perspective that the data is not a passive record of events but a message encoded to be disseminated with a specific meaning designed to read, interpret, and respond in a particular manner by the target audience and received with a focus in line with the messages. In this respect, content analysis differs from other empirical methods by focusing on the complex relationships and social settings present in the communication images. It could be approached either qualitatively or quantitatively, depending on the aim of the research.

Quantitative content analysis measures and counts particular characteristics in the content, whereas qualitative content analysis explains the meaning and situational positioning of the content. A major strength of the method is that it enables large masses of data to be handled both in a manageable and reproducible way. The aspects of culture, society, and psychology that influence the portrayal and perception of each term in every media will be identified through the use of content analysis.

B. Object

The objects of this study are three English learning applications, namely Duolingo, Rosetta Stone, and Elsa Speak. This study aims to analyze the effectiveness of the three applications in improving English speaking skills, especially in terms of vocabulary, grammar, pronunciation, fluency, and comprehension. This study will compare the features, learning methods, and learning outcomes of the three applications to determine which is the most effective in improving English speaking skills. The results of this study are expected to provide useful information for users and developers of language learning applications.

C. Data

Such tools as Rosetta Stone, Elsa Speak, Duolingo are examples of AI-based programs applied for enhancing the students' English-speaking skills in order to collect the data for this research. This set of tools corresponds to the spectrum of strategies applied in the AI-based language learning, from rejuvenation feedback, speech recognition, to conversation reproduction. This study aims to uncover how technology tools in the roll of AI can support students' speaking skills more effectively/interactively and correspondingly. Subsequently, an assessment of the contents that are featured in the enumerated applications and websites leads to the purpose of this study, which focuses on providing a description of provided data.

D. Technique of Data Collection

The research method employed in this paper is documentation. Documentation is a data collection technique in which information is collected from documented written or recorded data. Examples of the written materials include records, documents, among other documents that maybe in different formats during the documentation technique of data collecting. The documentation methodology is common in qualitative research when data is collected through different approaches such as interviews, observation. Data analysis process involves data reduction, data display, and conclusion drawing after data collecting.

E. Data Analysis

Subsequent to the collection and organization of data, the phase of data analysis ensues. The documentation of data collection represents the initial stage encompassed within the data analysis framework. The next step involves the transformation of the data into a descriptive format. The initial data collection process for this study was grounded in the observation of the research subjects. This was succeeded by the classification of the data contents and their subsequent analysis. As pointed out by Creswell (2018), the choice of data collection instruments is very important in helping the researcher collect information to answer the research question. There is, therefore, a need to outline the information relevant to the particular study. At the tail end, there is a need to detail the kind of information that should be collected, adding that the scope should not be limited to

a few observations. Following Miles & Huberman (2014), the qualitative research design incorporates the listed analytical techniques.

1. Data Reduction

Data reduction is an analytical strategy to group, classify, eliminate and organize the reduced data into themes to provide more unified picture of the observations that were made. It requires selecting, condensing the content and focuses on the central research problem. At this step, right after collection of material the researcher accesses numerous sites to make sure the content is relevant for English speaking. Data reduction is among the critical data analysis techniques used in promoting English speaking practice. It also helps that the researchers are able to condense the data and reorganize the elements left in the low data set into categories or themes for organization to forge a more coherent picture of the observations. This stage deals with a process of choosing and narrowing down information pertinent to the main research question under the consideration of its relevance to the English speaking. After that, researchers make use of different resources to check the subject matter and relevancy regarding the goals to enhance the speaking ability. It is essential when doing coaching to have the specific areas where exercises in English speaking are more relevant, so that specific patterns and themes that will be relevant to such technique can be spotted and used accordingly to ensure efficient results in teaching and learning.

2. Data Display

Qualitative research data, as indicated, are presented through the use of tables, charts, brief descriptions, and the explanation of the relationships between categories. This form of presentation, together with the classification and the organization of the data, makes analysis of the information much easier. Such a means of data representation can be viewed as a stage of data reduction later on. With regard to description, the data are described from the analysis carried out in the documentation. Data display in the context of English-speaking practice refers to the organization and presentation of qualitative data such that key patterns and relationships are brought out. This can be done using various visual aids-tables, charts, and graphs-that assist in summarizing complex information into more digestible formats. It will make educators' and researchers' lives easier by displaying data on pronunciation accuracy, progress of fluency, and vocabulary use. In addition, brief descriptions and explanatory notes may point out something about context and deeper insights into the data. Effective data display allows not only better understanding of it but also pinpoints areas in which intervention is needed and improves overall learning.

3. Conclusion/Verification

To constitute conclusion, there is need to provide evidence and make a conclusion. The outcome may be open to revision if data gathering needs to be done because not enough information has been obtained. The answers obtained in qualitative research can respond to the original question. The data that have been

and are provided allows the researcher to draw conclusions, and these conclusions are supported by substantial evidence that was acquired throughout the data gathering phase. The conclusion carries the answer to the research question put forward by the researcher.