

CHAPTER III

RESEARCH METHOD

This chapter presents and discusses some aspects of the research. It covers approach and research design, research setting, data and source of data, research instruments, data collection technique, data analysis technique, checking validity of findings and research stages.

A. Research Design

The research design employed in this study is a descriptive qualitative method. This method was chosen to facilitate an in-depth exploration of how digital technology strengthen students' 4C (Critical Thinking, Creativity, Collaboration, Communication) skills during teaching practice of pre-service teachers, as well as to gain insights into the challenges they encounter. Qualitative research is an approach that delves into relationships, actions, settings, and phenomena within a given context (Wallen, 2009). Denzin and Lincoln (2010) assert that qualitative research utilizes techniques such as interviews, document analysis, and observations to provide explanations for social phenomena. Additionally, qualitative research focuses on the process itself (Wallen, 2009). In the context of this study, the qualitative approach is employed to comprehensively elucidate how pre-service teachers leverage digital technology to foster the strengthening students' 4C skills during teaching practice and to meticulously explore the challenges pre-service teachers face.

B. Research Setting

The research was conducted at the schools that where the sixth semesters pre-service teachers doing their teaching practice II and has implemented *Kurikulum Merdeka*. These pre-service teachers are engaged in their teaching practice as part of their teacher education program. There are 4 schools that suit the research criteria, namely implementing *Kurikulum Merdeka* and pre-service teachers are given the opportunity to tech in classes that have implemented *Kurikulum Merdeka*, the schools are MAN 1 Banjarmasin, MAN 3 Banjarmasin, MTSN 2 Banjarmasin, and MTSN 3 Pemurus Dalam. The setting includes the classrooms and schools where these teaching practices take place, as well as the students and cooperating teachers involved in the process. The specific educational environment and the interactions within it are essential components of the research setting, as they significantly impact the of digital technology and the strengthening of 4C skills.

C. Research Subject

1. Subject of the Research

The research subjects in this study are five pre-service teachers who are conducting their teaching practice in schools, particularly in madrasahs, in Banjarmasin, which have implemented the "*Kurikulum Merdeka*" in their educational programs. These pre-service teachers are selected from the sixth-semester class of 2020 English Teacher Education Department at UIN Antasari Banjarmasin. The study focuses on their

practices regarding the use of digital technology to strengthen 4C skills in student teaching practices.

D. Data and Source of Data

1. Data

- a. Various of digital technologies used: The data collection will focus on delineating the specific digital tools and technologies employed by pre-service teachers in their teaching practices. This encompasses a detailed exploration of platforms, software, and applications utilized for enhancing the 4C skills (communication, collaboration, creativity, critical thinking).
- b. Role of digital technologies in strengthening 4C skills: The information sought will revolve around understanding the precise role each digital technology plays in bolstering the identified 4C skills. This involves gathering insights into how these tools are strategically integrated into teaching practice to enhance communication, collaboration, creativity, and critical thinking among students.
- c. The Challenges Encountered in Using Digital Technologies: The data collection will also aim to uncover and analyze the obstacles faced when implementing digital technologies. This encompasses technical challenges and pedagogical challenges among pre-service teachers in adopting or integrating these technologies into their teaching practices.

2. Source of Data

The primary source of data for this research comprises pre-service teachers conducting their teaching practice in madrasahs in Banjarmasin, which have implemented the "*Kurikulum Merdeka*". Data will be collected through various means, including interviews and observations. These interviews and observations will provide in-depth information about the integration of digital technology in teaching practices to develop 4C skills.

E. The Technique of Data Collection

The data collection process involved observing their teaching sessions. These techniques facilitated the collection of rich and contextually relevant data.

1. Classroom Observations

Classroom observations were carried out to directly witness the teaching practice of pre-service teachers. This method enabled the researcher to observe what digital technology are use and the role of digital technology in strengthening 4c skills, how pre-service teachers interacted with students, and how 4C skills were demonstrated. Classroom observations provided a contextual understanding of the interplay between technology, teaching, and skill development (Merriam & Tisdell, 2015).

F. Data Analysis

Data analysis in qualitative research involves a systematic process of searching, organizing, and interpreting data to derive meaningful insights and understand the research questions. For this study, the analysis followed the

steps proposed by Miles and Huberman (2014), encompassing data reduction, data display, and conclusion drawing. These steps were crucial for making sense of the rich data collected through observations.

1. Data Reduction

During this phase, the researcher systematically organized and condensed the data. This process included categorization, summarization, and coding to identify common themes, patterns, and significant information within the data.

2. Data Display

Data display refers to the visual representation of the organized data. This step helped in presenting the findings in a clear and comprehensible manner. Various techniques, such as matrices, charts, and diagrams, were employed to display the data visually, making it easier to identify trends and relationships.

3. Conclusion Drawing

In the final step, the researcher drew conclusions based on the patterns and insights identified during data reduction and display. The study's research questions were addressed, and the findings were interpreted in the context of how digital technology strengthens students' 4C skills in teaching practice.

By following the Miles and Huberman model's interactive analysis technique, the study ensured that the data analysis process was rigorous and systematic. This approach allowed for a deeper

understanding of the role of digital technology in strengthening students' 4C skills during teaching practice of pre-service teachers.