

CHAPTER 3

RESEARCH PROCEDURES

This chapter gives detailed information about the research design and procedure that was carried out during the completion of this research process. It is divided into seven parts. The first one is the research method, which explains the design and method used by the researcher. The second is the focus of the study, which gives information about the focus of the research so that the discussion will stay on the point or not be out of the research context. The third part is telling the setting and participant information, it will inform where the research will be held and who will be involved in this research as a participant. Also, this part explains how the researcher selected the eligible participant who can be involved in this research. The fourth is the technique of collecting data, it tells the instrument and the way the researcher collected the data. The fifth is the technique of analysing the data, this part explains what the researcher did after the data was collected and how it was analysed. The sixth part informs the research steps carried out in this research. Then, the last is the time and place of the research, it contains graphical information about the timeline of the research completion.

3.1 Method of the Research

This research method uses a descriptive case study because it is most suitable for gathering detailed experiences from a population. This approach is used to collect neutral descriptions of events that come from people who experienced them firsthand, because it focuses on elaborating on the situation as it is, rather than interpreting it subjectively (Seixas et al., 2018).

3.2 Focus of the Research

By deploying the descriptive analysis method, this research is focusing on portraying the teachers challenges digital instructional media in the classroom to be as clear and honest as possible. The description was taken from the result of interview with teachers who were purposely chosen based on some characteristics.

3.3 Setting and Participants

This study will take place in a Junior High School in Tasikmalaya, West Java because it is the setting where the phenomenon of the research is found. The researcher conducted a preliminary study before choosing research participants by giving questionnaires about how they use digital instructional media and reading their responses. The questionnaire is only for selecting research participants. The participants in this study were three English teachers who worked in junior high schools in Tasikmalaya because they had experience using digital instructional media as teaching tools in English classes and the data collected would be rich. Participant 1 (P1), has been teaching junior high school for two years in Sukaratu. Participant 2 (P2), is a junior high school teacher in Tamansari with over three years of experience. Participant 3 (P3) is a veteran teacher with over 20 years of experience at the junior high school level in Cipasung. They also represent research needs, can answer interview questions and agree to be research subjects. This study employed purposive sampling to select participants who possess specific characteristics relevant to the research objectives.

3.4 Technique of Collecting the Data

The data collection used in this research will be a semi-structured interview to know the teachers' challenges and strategies in using digital instructional media. Interviews are the most commonly used data collection method (Taylor 2005) and the semi-structured format is the most frequently used interview technique in qualitative research (DiCicco-Bloom & Crabtree 2006) cited in Kallio et. al (2016). One of the main advantages is that the semi-structured interview method has been found to be successful in enabling reciprocity between the interviewer and participant (Galletta 2012), enabling the interviewer to improvise follow-up questions based on participants responses (Hardon et al. 2004, Rubin & Rubin 2005, Polit & Beck 2010) and allowing space for participants' individual verbal expressions (RWJF (Robert Wood Johnson Foundation) 2008) cited in Kallio et. Al (2016).

In starting the interview, the conversation will use *Bahasa Indonesia*. First step, the researcher introduced his identity and research purposes. Second, the

researcher will ask permission to record the interview. Third, open-ended questions require participants to formulate a response in their own words and express it verbally or textually (Cornelia Züll, 2016). Fourth, the interview will be conducted directly in the participant's house, and the duration is around 30-60 minutes.

3.5 Technique of Analyzing the Data

After the interview, the researcher needs to transcript the answer of the participants which will be analyzed using reflexive Thematic Analysis. Thematic analysis is a hugely popular analytic method. Thematic analysis is a flexible qualitative method that involves making several decisions about data collection and analysis before they are undertaken (Braun & Clarke, 2006). Braun & Clarke (2006) offer six-phases guidance that are a highly effective foundation in doing thematic analysis such as:

1) Familiarizing with the data

In this step, the researcher familiarized the data by reading through the interview transcripts related to teacher challenges when using digital instructional media. The data was presented in the form of an interview audio recording. The researcher completely transcribed the audio after listening to it. Following transcription, it is also read several times to become familiar with the data.

2) Generating initial codes

Coding means the process of identifying aspects of the data that relate to the research questions. This stage has the purpose to analyze and identify the smallest potential part of the meaning. After that, the researcher will mark the potential code using color.

Table 3.1 Generating Initial Codes

R: Nah itu dia karna disini karna memang pesantren anak-anak tidak menggunakan handphone saya kesulitan dalam membuat suasana belajar yang ada interaksinya. Missal quiziz saya jadi menggunakan hp saya sendiri,	Limited access to technology
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padahal saya sangat tertarik menggunakan media digital yang lain.

I: Biasanya teh kalo misalkan materi text procedure di kelas 9 jadi biasanya ngasih text procedure di PPT atau videonya terus nanti mereka mengamati yah mengobservasi, terus nanti gurunya nanya ini teh tentang apa paling kawas metode scientific pada umumnya kitu sih, terus nanti mungkin pas si siswanya ada jawaban yang mendekati ke apa yang kita ajar atau bahan ajar di hari sekarang.

Adapting teaching methods

I: Kalo sumber materi belajar mah dari buku, terus dari internet. Aku biasanya ngambil Missal dari blognya ruang guru, terus zenius, terus English pages. Aku nyari di google ajah yang gampang-gampang dan bisa diakses.

Content alignment

D: Nah saya paling aplikasi BSE, jadi disini ada berbagai ebook digital yang bisa dipakai sebagai bahan ajar, soal soal juga ada.

Selecting appropriate Digital Instructional Media

I: Kalo dari diri sendirinya nih bagaimana meningkatkan pengetahuan tentang media pembelajaran digital yang digunakan? Biasanya saya nyari di internet yang sesuai dengan kebutuhan mengajar ajasih, searching ajah gitu oh ternyata ini bisa pakenya begini, missal seperti itu.. jarang sampe pelatihan penggunaanya mah

Professional development

19 initial codes represented different aspects shown by participants' interview transcription. Here is the list of initial codes and their frequency

Table 3.2 List of initial codes and their frequency

No.	Initial codes	Frequency
1.	Limited Access to Technology	7
2.	Resistance to Change	5
3.	Institutional Policy	3
4.	Adapting Teaching Methods	7
5.	Student Engagement	5
6.	Assessment	3
7.	Content Alignment	3
8.	Creating Quality Digital Content	3
9.	Selecting Appropriate Digital instructional media	3
10.	Integrating Technology into Instruction	3
11.	Designing Effective Digital Learning Activities	3
12.	Using Technology to Differentiate Instruction	2
13.	Selecting Appropriate Digital Tools for Specific Content	2
14.	Designing Technology-Enhanced Learning Experiences	2
15.	Evaluating the Impact of Technology on Student Learning	2
16.	Professional Development	7
17.	School Support	3
18.	Student Access to Technology	3
19.	Copyright and Ethical Consideration	1

3) Searching for themes

After the researcher has been initially coded, then the researcher will group the codes into possibly the same themes from the data that has been highlighted in the second step.

Table 3.3 Searching for themes

No.	Initial codes	Potential Themes
1.	Limited Access to Technology	Teachers Technology Use Barriers
2.	Resistance to Change	
3.	Integrating Technology into Instruction	
4.	Designing Effective Digital Learning Activities	Pedagogical adaptability
5.	Selecting Appropriate Digital instructional media	
6.	Adapting Teaching Methods	
7.	Student characteristic	Differentiated Learning
8.	Creating Quality Digital Content	
9.	Content Alignment	
10.	Professional Development	Institutional Limitation
11.	School Support	
12.	Institutional Policy	

4) Reviewing themes

In this step, the researcher will re-examine the themes and re-check if it matches the data. After that, the researcher reviewed the selected themes

of teachers' challenges in using digital instructional media to ensure that the code placements were classified into relevant topics.

Table 3.4 Reviewing Themes

Potential Themes	Themes
Technological Constraints	Teachers Technology Use Barriers
Teachers Development	Institutional Support
Differentiated Learning	Students Diversity Understanding Level

5) Defining and naming themes

The researcher will give a final correction for the theme, based on the data that has been obtained.

6) Producing the report

Researchers present the findings of this study, which focused on teachers' challenges in using digital instruction media.

3.6 Steps of the Research

1. Observation of phenomenon and research problem
2. Selecting topic for the phenomenon, writing tentative research, and seeking approval
3. Research proposal writing
4. Questionnaire making
5. Distributing questionnaire with semi-structured interviews
6. Data collection

7. Data analysis

3.7 Time and Place of the Research

This research will be conducted the year 2023. The researcher conducted the place that is used for doing research in high school in Tasikmalaya, West Java, Indonesia.

Table 3.5 Research Timeline

No	Steps	August - December	January - December	February - December	February - April	July
		2022	2023	2024		2025
1	Research topic and approval					
2	Research proposal writing					
3	Proposal examination					
4	Collecting data					
5	Analyzing data					
6	Report					
7	Thesis examination					