

## CHAPTER FIVE

### RESEARCH METHODOLOGY

This chapter briefly discusses the methodological issues relevant to this study. It is important to ensure that all the significant issues are clarified. Since it falls under qualitative and case study research, an attempt has been made to provide an overview of the research approach and design as well as provide an understanding of the various methods for data collection and data analysis. The rationale for the qualitative approach and ways to select a case study design are explained. Beyond this, the chapter discusses broad methodological issues before elaborating on selected methodological approaches and designs. The following subtopic comparatively addresses appropriate methods in selecting and elaborating on preferred methods such as research protocol, validity, and reliability. Lastly, this chapter concluded with a chapter summary.

#### 5.1 Introduction

Research is the process of asking questions and explaining answers based on objectives and findings in any academic investigation (Creswell, 2014). It is a methodical and analytical approach to solving problems as an investigation into reality and the gain of new information (Kothari, 2004; Neuman, 2013; Babbie, 2014).

In addition, research tries to find something, whether formally through complex methods or informally through a simple procedure (Wimmer and Dominick, 2013). Indeed, a correct methodology for each step and procedure of the research is

required by any academic research tradition (Berger, 2011; Treadwell, 2014). Finally, any academic research is a series of questions, answers, and explanations based on aims. It's an approach for tackling problems slowly and methodically in order to discover new knowledge.

However, since considering the notions of doing research, the ocean of literature has been flooded with debates over the distinctions between methodology and techniques (Kothari, 2004; Wimmer and Dominick, 2013). According to Jonker and Pennink (2010), nothing has been spoken or talked about explaining methodology and techniques, and both notions have caused a surprising degree of uncertainty.

## **5.2 Defining Methods and Methodology**

Methodology is a set of techniques or procedures for tackling research problems in a methodical and efficient manner. It's also known as the science of discovering or constructing new knowledge from an epistemological standpoint (Kothari, 2004; Jonker and Pennink, 2010; Berger, 2011; Neuman, 2013; Babbie, 2014; Cresswell, 2014).

According to Wimmer and Dominick (2013), methodology is a study of methods or techniques used in the decision-making process, with the choice based on the objectives, research type, research purpose, research philosophy, research approach and design, study location, unit of analysis, sampling design, data collection method, instrumentation and measurement, pilot studies, and data analysis.

Indeed, if research is not carried out in a methodical manner, it is less probable that a research problem will be solved. Simultaneously, in order to answer research topics, researchers will face a number of issues. Without a doubt, if the appropriate

research methodology is employed, all research difficulties can be efficiently solved. The following are the advantages of the research methodology in this study (Kothari, 2004; Jonker and Pennink, 2010; Babbie, 2014; Neuman, 2013; Wimmer and Dominick, 2013; Cresswell, 2014):

- a. Facilitates at the decision-making stage or conclusions.
- b. Overcome various limitations, such as time, cost, labor, ethics and others.
- c. Trusted data and result can be used to solve problems.

Meanwhile, when performing any research, a method is a technique or collection of protocols employed at each stage of the procedure. It also implies that methodologies evolve naturally during the process of deciding on a research approach, research design, data collecting, and data analysis procedures. The use of proper procedures determines the validity and reliability of results as well as the achievement of the research's aims, purposes, and objectives (Kothari, 2004; Wimmer and Dominick, 2013).

Ultimately, this study defines research methodology as a systematic process in which a researcher performs each research phase. Simultaneously, research methodology becomes a vital nerve in the body of research, and techniques become the veins of every process or procedure in resolving any problem.

As well, research methodology indicates the study approach and design, which includes, among other things, processes and steps that must be followed, research duration, data sources, and the steps that these data must be gathered, processed, analyzed, and concluded.

Therefore, since this study was investigating the utilization of new media in *Kintak's* lives, it used the research methods suggested by Wimmer and Dominick (2013) in addition to Creswell (2014) as follows:

- a. Select a problem - Stating problem statements for generating research question and research objective as written in Chapter One.
- b. Review existing research and theory (when relevant) - Conceptualizing and theorizing topic such as *The Orang Asli of Peninsular Malaysia* as written in Chapter Two; *Communication and Development: New Media Substratum Islamic Fundamentalism in the Age Of Globalization* as written in Chapter Three; *Communication Effects Substratum of Uses and Gratification: The Intercultural Context of Hybridity Under Islamic Fundamentalism* as written in Chapter Four.
- c. Develop hypotheses or research questions - Stating research question and research objectives as written in Chapter One.
- d. Determine an appropriate methodology/research design - Selecting appropriate methodologies under the constructivism philosophy by applying approach of qualitative and case study design as written in Chapter Five.
- e. Collect relevant data - Stating the procedure of interview and observation data collection as written in Chapter Five.
- f. Analyze and interpret the results - Stating the procedure of qualitative computerized data analysis using NVivo as written in Chapter Five.
- g. Present the results in an appropriate form - Presenting the result of thematic analysis (based on research questions and research objectives) as written in Chapter Six.

- h. Replicate the study (when necessary) - Stating on recommendations for future study as written in Chapter Seven.

### **5.3 Research Philosophy**

The typical academic research tradition conceals or dismisses research philosophy. Even if it is not mentioned explicitly, the ideas based on each research philosophy influenced the study technique.

Several terms have been used interchangeably when discussing the term “research philosophy,” including *paradigm* (Guba and Lincoln, 1994; Kumar, 2011; Wimmer and Dominick, 2013; Babbie, 2014), *philosophical perspectives* (Merrigan and Huston, 2004), *approaches or broadly conceived research methodologies* (Neuman, 2013) and *philosophical worldviews* (Creswell, 2014).

However, in presenting the research philosophy, this study uses both Wimmer and Dominic’s paradigm in addition to Creswell’s philosophical worldview and falls under the constructivism or interpretivism - subjectivity of reality in constructing meaning. Constructivism relies on a qualitative approach and favors the use of case study design in the quest for reality, as in this study. It also concentrated on acquiring reality through human context, setting, and interpretation. Constructivism relies on inquiry rather than generalization when making statements about reality (Wimmer and Dominick, 2013; Creswell, 2014).

### **5.4 Research Type**

Research is done to find answers to questions about events or phenomena that have happened, is happening, and be predicted to happen in the future.

In most circumstances, human knowledge cannot be used to overcome uncertainties or problems without a methodical investigation. This is due to the fact that human knowledge has always been influenced by a variety of potential or biased settings. As a result, every researcher should be aware of the study type for each investigation since there is only two major forms of research in the academic research tradition: basic research and applied research (Kothari, 2004; Kumar, 2011; Neuman, 2013; Wimmer and Dominick, 2013; Creswell, 2014; Babbie, 2014).

As a result, in this study, basic research is chosen to expand current knowledge on Orang Asli, particularly in the context of new media in *Kintak's* lives. Similarly, basic research assists this study's understanding of issues such as needs and expectations, type and levels of utilization, important factors that influence utilization, and barriers to new media utilization. In order to identify purposes, improve understanding of phenomena, and provide new knowledge for future research in Orang Asli communities, basic research is ultimately chosen.

### **5.5 Research Purpose**

In academic traditions, the basic purpose of all research is to develop new knowledge by generating predictions based on the research findings. It's also meant to assist with fulfilling certain study requirements. The ocean of literature shows three major research purposes: descriptive, explanatory, and exploratory study (Neuman, 2013; Creswell, 2014).

Since a result, the goal of this study is “exploratory,” as it looks into the utilization of new media in *Kintak's* lives. In the following part, this study discusses why exploratory aims chosen.

Primarily, exploratory research is the first step of any study in which the researcher learns the basic facts, persons, locations, and concerns. The purpose of this study, which is also known as a *feasibility study* or *pilot study* (Kumar, 2011), is to provide an opportunity to develop a well-grounded mental picture of understanding or new knowledge about *Kintak's* exploration of new media.

As there is less information or data on the subject or unit of analysis in this study, exploratory research was chosen to provide a significant focus on new knowledge, as indicated in the study's significance section in Chapter One. The study then methodically investigates and defines the issues with seeking new information.

Since little is known about the topic matter, exploratory research focuses on what questions to ask and is more open to using a variety of sources in data gathering processes. Although exploratory research is difficult to undertake since the processes are not well defined, it creatively investigates all sources of information in a small-scale investigation to generate new knowledge, develop strategies, and make sense for future research (Kumar, 2011; Neuman, 2013; Wimmer and Dominick, 2013; Creswell, 2014).

## **5.6 Research Approach and Design: Justification of Qualitative Approach and Case Study Design**

Research is a purposeful activity that is carried out for a specific reason to answer a specific question or to solve a specific problem. Furthermore, research has evolved into a systematic way of thinking and knowing, encompassing a type of rigorous investigation aimed at solving problems and generating new knowledge.

Indeed, every researcher has questioned the appropriate approach and design in terms of research, particularly methodology in relation to meaning and benefits.

A research approach is a way of thinking used by researchers that is classified into three types: quantitative (experimental and survey), qualitative (narrative research, phenomenology, grounded theory, ethnography, and case studies), and mixed methods (convergent, explanatory, exploratory, transformative, and embedded or multiphase research). Each approach has a systematic and diverse approach as a comprehensive procedure of investigation and research design determination. In contrast, research design is the type or strategies of inquiry used to provide systematic plans or procedures for each stage of investigation within the approaches (Kothari, 2004; Kumar, 2011; Babbie, 2012; Neuman, 2013; Wimmer and Dominick, 2013; Creswell, 2014).

As previously stated, this study ultimately falls under the qualitative approach and chose the case study design as a methodological procedure in the exploration of a phenomenon, specifically the utilization of new media in *Kintak's* lives. The following section explains the justification for the research approach and research design.

Qualitative research is an inductively unstructured approach to naturalistic investigations that is based on multiple philosophical traditions such as constructivism and transformativism. A quantitative research approach has general, flexible, dynamic, explorative, and experienced characteristics during the research process (Kothari, 2004; Kumar, 2011; Babbie, 2012; Neuman, 2013; Wimmer and Dominick, 2013; Creswell, 2014).

The qualitative approach is meant to collect more detailed data, develop a theory, describe reality, draw conclusions, and, most importantly, avoid

generalization of the phenomenon under investigation. Participatory observation techniques and in-depth investigation used to collect data. The primary research instrument is unstructured and is typically used by researchers with small samples or informants assisted with interview question guides and field notes. Non-statistical analyses used in data analysis techniques for thematic analysis to code or identify patterns, themes, and features. It can be done manually with paper pencil, or computerized with MS Word, MS Excel or CAQDAS (Computer-Aided Qualitative Data Analysis) software such as *Nvivo*, *Transana*, or *Atlas.ti* (Kothari, 2004; Kumar, 2011; Babbie, 2012; Neuman, 2013; Wimmer and Dominick, 2013; Creswell, 2014).

The case study method is one of the most influential in the world of qualitative approaches chosen as the study's design. However, over the past three decades, the puzzling techniques of case studies have yielded more than 20 connotations to address research design issues.

Due to the researcher's and respondents' familiarity, this study believes in and adapts case study design as a social construction of reality based on cases. Indeed, this study replicated the constructivist paradigm of case study by Yin (2014) and Stake (2005).

A case study is fundamentally defined as an in-depth investigation of a unit of analysis in any study using multiple sources of data rather than quantitative data. According to the case study design, the unit of analysis may be a unit such as people, groups, or communities in particular study at a specific time and place. In this study the unit of analysis is a *Kintak* - people. However, the absence of reliability, some research designs conduct case studies as an example of action research by investigating a single case of a specific phenomenon (Stake, 2005; Swanborn, 2010; Yin, 2014).

Case study design, which falls under the qualitative research approach, has several types of cases and distinguishes between each type of case. Each case depicts a different connotation, allowing researchers to create a description of a specific case in a study.

On the one hand, according to Yin (2104), case studies include design elements such as explanatory, exploratory, descriptive, single-case, and multiple-case design. Stake (2005), on the other hand, implies that case studies included design as intrinsic, instrumental, and collective design. Finally, research tradition demonstrates that there are eight (8) types of case study design, namely:

- a. Explanatory - examine the data closely both surface and in-depth level in order to explain the uncontrollable contemporary phenomena of the data.
- b. Exploratory - explore the interest phenomenon in which the data being evaluated has no clear or single set of outcomes.
- c. Descriptive - describe the natural phenomena in narrative form which occur within the data.
- d. Single-Case - study of one bounded or embedded case to illustrate the insight of refine the theory of particular phenomenon.
- e. Multiple-Case - study of differences within and between cases to replicate findings across cases of particular phenomenon.
- f. Intrinsic - study of the unusual or unique case of phenomenon to provide better understanding.
- g. Instrumental - study of the case of phenomenon to provide insight into an issue or theme.
- h. Collective - study of differences within and between cases to replicate findings across cases of particular phenomenon.

As a result, this study used a combination of exploratory and intrinsic case study designs, as proposed by Yin (2014) and Stake (2005) respectively. Both types of case studies regarded as appropriate to other qualitative approaches for the following reasons:

- a. This study is narratively describe the natural phenomena in nature;
- b. The accessibility of the respondents or informants;
- c. The establishment of rapport and understanding of *Kintak*'s cultures;
- b. The ability to obtain active respondents or informants;
- c. The ability to work in the field as an observer in order to gain a deep understanding of the utilization of new media in the lives of *Kintak*; and
- d. The variety of data collection techniques such observation and interview strengthen the data and findings.

### **5.7 Location of the Study**

This research was conducted in Kampung Orang Bukit Asu, a village in the northern Malaysian state of Perak. It is about 25 kilometers from Gerik, on the way to Pengkalan Hulu/Keroh. The *Kintak* can only be found in Kampung Orang Asli Bukit Asu, which is about 40 minutes away by land vehicle. However, in some cases, a sport utility vehicle (SUV) or four-wheel drive (4WD) is required to get to Kampung Orang Asli Bukit Asu at GPS coordinates LAT 5°34'25.7" N and LONG 101°00'52.82" E (Refer Appendix C and Appendix D).

Kampung Orang Asli Bukit Asu is bounded to the north by Malay settlements and to the south by Kampung Pong, a Siamese settlement. The *Kintak* have lived in this village since the 1980s, prior to the nomadic lifestyle in the areas of Sungai Kerumi in northern Gerik, Simpang Empat in Baling, Air Panas in Baling, Kubang

Semang in Kroh, Gunung Kenderong (also known as *Twin Peaks of Hulu Perak*), and Tanah Hitam in Gerik (Louis de Rochemont, 1948; Syed Jamal, 1973; Naim, 1987; JAKOA, 2017; Google Earth, 2016) (Refer Appendix E and Appendix F).

## 5.8 Population and Sampling

Speaking of population and sample, many questions arise such as how many samples are collected, the level of significance, and whether the sample represents the study's population.

The quantitative approach uses a large sample size. In order to resolve sampling error, the level of significance, and the level of confidence, sample size can be calculated using a specific calculation procedure or table developed by Krejcie and Morgan (1970) or Cohen and Manion (1994) (Berger, 2011; Neuman, 2013; Wimmer and Dominick, 2013; Babbie, 2014; Creswell, 2014; Punch, 2014; Treadwell, 2014).

The qualitative approach uses small sample sizes known as informant or source since it is not that easily determined, especially in case study designs. but, it still presents in-depth understanding based on the research objectives without losing sight of the purposes of study (Berger, 2011; Neuman, 2013; Wimmer and Dominick, 2013; Babbie, 2014; Creswell, 2014; Punch, 2014; Treadwell, 2014).

However, several researchers suggest the following number of determination sample sizes as a practical guideline for estimating sample sizes in a qualitative approach as follows (Mason, 2010):

- a. Ethnography and ethnoscience: 30-50 interviews for both (Morse, 1995) but Bernard (2013) statuses between 30-60 interviews for ethnoscience.

- b. Grounded theory methodology: 20-30 interviews (Creswell, 2014) but Morse (1995) statuses 30-50 interviews.
- c. Phenomenology: 5-25 interviews (Creswell, 2014) but Morse (1995) statuses at least 6 interviews.
- d. All qualitative research: 15 interviews is the smallest acceptable sample (Bertaux, 1981; Guest et al., 2006).

As suggested by Cresswell (2014), this study conducted 13 interviews consisting *Kintak's* head of household and non-citizen of *Kintak* including government officers and NGO workers as a sample of the study beside to fulfill the requirement of data saturation.

Therefore, since this study falls under the qualitative exploratory and case study design, this study selected a purposive or judgmental technique assuming that its population has been clearly identified (Berger, 2011; Neuman, 2013; Wimmer and Dominick, 2013; Babbie, 2014; Creswell, 2014; Punch, 2014; Treadwell, 2014).

The justification for the choice of purposive or judgmental is based on the difficulties encountered during the preliminary visit in August 2019, as well as the difficulties, particularly time frame, cost, and *Kintak* culture, which enabled a small number of informants to participate in this study (Refer Appendix G).

Finally, 8 informants (heads of households) chosen from among the *Kintak* group's 192 populations (Refer Appendix H). Simultaneously, 5 *non-Kintak* citizens chosen for in-depth interviews since had the most knowledge and resources, as well as close contact and intimacy with the *Kintak* group (Refer Appendix I).

The justification of the selection of sampling technique as well based on real-time situations as suggested by Neuman (2013) in emphasizing the appropriation of sample as follows:

- a. First, unique case and particularly informative: Orang Asli - *Kintak*.
- b. Second, difficult-to-reach and specialized population: remote area and occasionally practices nomadic lifestyle - hunting or fruits season.
- c. Third, in-depth investigation: interview and observation - utilization of new media.

## 5.9 Research Instruments

In general, a research instrument is any tool or method for acquiring, obtaining, and collecting data in academic research. The questionnaire has become the most popular testing device or set of tools for researchers' either structured or unstructured formats. Typically, researchers created the questionnaire based on the research questions, adapting or changing previous research. In some cases, researchers created a questionnaire using an existing standard instrument (Berger, 2011; Hansen and Machin, 2013; Neuman, 2013; Wimmer and Dominick, 2013; Creswell, 2014; Punch, 2014; Treadwell, 2014).

Therefore, since it falls under qualitative exploratory and case study design and researcher as the main tool, this study selected an unstructured questionnaire by using an interview question guide in the form of open-ended questions (Appendix J and Appendix K).

The justification for the selection of open-ended questions in this study is due to the fewer intimidating free responses; deeper responses, detailed responses, and richness of responses. Furthermore, since *Kintak* is a reclusive and isolated people,

the uses of close-ended questions may put stress on them as well as refuse to cooperate in giving answers during interview sessions (Neuman, 2013; Wimmer and Dominick, 2013; Creswell, 2014).

## **5.10 Data Collection and Procedure**

Interview and observation, as hallmarks of qualitative research traditions, became the primary movers in data collection and procedure in this study. However, before collecting data, the first step in qualitative research is to obtain ethical approval before entering the research site.

### **5.10.1 Gaining Access and Ethical Authorization**

Without a doubt, the most difficult problem in conducting a study using humans as the unit of analysis is not methodological, but ethical, particularly in gaining access to the research site. To be sure, since everything is calculated, the first step into a research site is probably the most significant phase of the entire qualitative process (Neuman, 2013; Wimmer and Dominick, 2013; Creswell, 2014).

Indeed, several steps were taken for this study to obtain approval and authorization from ethics committees, as well as gain access to the research site for data collection. First, complete the proposal defense session with Islamic Science University of Malaysia (USIM). Second, it seeks approval from Malaysia's Economy Planning Unit. Third, obtain permission from the Orang Asli Development Department (JAKOA). Fourth, meet with and obtain approval from the Headman (*penghulu*) of Kampung Orang Asli Bukit Asu, Gerik Perak, and finally, obtain consent from the informant before beginning the interview session.

Simultaneously, this study informed and clearly explained to the informant

about the study's objective; the right to privacy; data protection and confidentiality by remaining anonymous and respected; and the uses of other materials or interview equipment to record the data. The informant was also free to withdraw at any time during the interview session.

### 5.10.2 Interview

As a result, an in-depth interview was selected in this study and undertaken on 2<sup>nd</sup> until 5<sup>th</sup> December 2019 for *Kintak* and 9<sup>th</sup> until 12<sup>th</sup> December 2019 for *non-Kintak*, although several types of interviews emerged, such as clinical interviews, life stories, and historical stories (Wimmer and Dominick, 2013; Creswell, 2014; 2016).

The procedure of interviewing in this study conducted in the form of face-to-face individual interviews instead of face-to-face group interviews. Each interview session for every informant, particularly *Kintak*, was conducted at their home or residence in KOA Bukit Asu and was accompanied by *Penghulu* (headman). Meanwhile, interview also conducted in several locations for *non-Kintak* informants, including the JAKOA Office in Gerik town, rattan wholesaler residence in Kampung Pahit Gerik, grocery store in Klian Intan town, *Penggerak Masyarakat* (community mobilizer) residence or *Rumah Melati* in KOA Bukit Asu, KOA Bukit Asu public hall, and KOA Bukit Asu small mosque (*surau*). Since every *Kintak* or *non-Kintak* informant is involved in their daily activities, each interview lasts approximately one hour. However, all of the interview sessions went smoothly, and none of the informants decided to withdraw during the study's interview sessions. The researcher also gave each informant a token of appreciation for their cooperation throughout the study.

At the same time, the method of data collection in this study used the interview protocols in order to align with the research questions. During the interviews, the informant's data was recorded on a digital voice recorder with permission and notes taken simultaneously. Later, all of the recorded interview voices manually transcribed verbatim before being analyzed using NVivo - computerized data analysis software by QSR International.

As suggested by Creswell (2007; 2014; 2016) and Yin (2011; 2014), this study undertakes interview protocols as below:

- a. To begin the interview protocol, the researcher developed questions based on interview question guides, which included opening questions, introductory questions, transition questions, key questions, and closing questions. The protocol's questions were open-ended and conducted as a discussion. Informants are allowed to express their own opinions on the topics being discussed using probing questions in ongoing interviews, but they must still be reliable with the research question.
- b. Usually, before asking the opening question, the informants are given a few seconds to introduce themselves. This is meant to be an ice-breaker or to lift the discussion curtain so that the respondent feels comfortable expressing their opinions in the next discussion. In this section, each informant was given one (1) minute to avoid any anxiety or discomfort during the interview, as well as to build self-confidence in answering the questions. For example, *Hi! How are you? Had you taken your meal (breakfast; lunch; dinner – depend on situation)? How are you feeling today? How is your family?*

- c. Following that, introductory questions are used to introduce the overall theme of the discussion to the informants. This section allows informant to recall any experiences related to the topic being discussed. This question aims to provide an overview but is based on the research questions. For example, *Could you tell me whether you know about new media? Could you provide me with examples – radio, television, telephone, mobile phone, computer etc. (I may use these probes if needed)?*
- d. Furthermore, the researcher attempts to guide the informant to the topic of discussion or even important data required using transition questions. For example, *Could you tell me any changes/development has you seen in the community/village over past few years (or since you utilized new media)? Could you tell me what makes you utilize new media? What motivated your people/village to utilized new media?*
- e. While the key questions as the core questions began to extract data from the interviewed informants. The researcher obtains important data through this key question. For example, *Could you tell me what do you needs and expectations from new media? What is the important source to get information and to communicate with other people? Could you tell me any factor that influences the utilization of new media?*
- f. Finally, the closing question is a summary of the interviews. It demonstrates that the researcher covered or did not cover all of the important data, as well as the important data that the informant needed to share about the topic of discussion. For example, *What do you think has facilitated the level of utilization of new media among people in this*

*village? Could you tell me what is the important factors that prevents you from utilization of new media? Could you tell me any suggestions to improve or enhance the utilization of new media? Is there anything that you think is relevance and we haven't covered?*

Following the final question, the researcher thanked the informants for their willingness and time. The researcher also stated to the informant that if the results of this interview were completed in the form of a transcription, the researcher requested that the transcription results be reviewed to ensure that the data is consistent with what the informant provided. But, not implemented due to MCO (*Movement Control Order*) in response to the COVID-19 pandemic in Malaysia from March 18, 2020 to November 1, 2021 (2 years, 2 weeks, and 5 days).

### **5.10.2 Observation**

After all interviews have been completed, this study uses observational methods such as resemblance triangulation to strengthen the findings and undertaken on 15<sup>th</sup> December 2019. As a result, as Creswell (2014; 2016) suggested, this study investigated the utilization of new media among *Kintak* using an observational method as a non-participant/observer as a participant, despite the fact that there are four types of observational utilizations as follows:

- a. Complete Participant: Completely participates with individuals in research site to builds rapport. But, difficult to take field notes;
- b. Participant as Observer: Participates in research site activities. Plays noticeable utilization to gains subjective and depth information. But, difficult to take field notes;

- c. Non-participant/Observer as Participant: Observes from a distance as an outsider. Just take field notes without direct participation; and
- d. Complete Observer: Simply observes without drawing attention and noticed. Just simply takes field notes without participation.

In this study, researcher only observed the surrounding situation and respondent's behavior in this setting to understand the real situation as well as the types of problems and challenges that exist among *Kintak*. Simultaneously, an observational protocol was used in this study to generate field notes without interfering with the activities of the subjects being observed.

As a result, this study employed the observational steps proposed by Creswell (2016) as follow:

- a. Select the research site: Kampung Orang Asli Bukit Asu, Gerik Perak;
- b. Develop observational protocol: Develop descriptive and reflective protocol (Refer Appendix L);
- c. Focus the observation: Utilization of new media among *Kintak*;
- d. Determine researcher utilization: Non-participant/observer as participant.

Eventually, the researcher's walk-around method was used to observe the behavior and environment in the Bukit Asu KOA area. Researcher also spent approximately half an hour at each location of *Kintak* meeting and gathering place, such as the people's public hall and small mosque (*surau*). Due to the obvious uneven distribution of houses, the total duration of the observation is approximately 3 hours since the researcher should indeed keep moving around the village area making observations rather than simply waiting in one location. Nevertheless, due to

the rapport and relationship established throughout this study and the researcher's previous visit, the observation went smoothly, and *Kintak* performed daily activities as usual without feeling any interruption from the researcher.

### **5.11 The Data Quality: Validity and Reliability**

At the start of research tradition, a researcher is required to secure data quality in order to identify the vulnerabilities of the instrument as well as study procedures. Concurrently, a data quality assessment was performed to determine the validity and reliability of the research instrument (Neuman, 2013; Wimmer and Dominick, 2013; Creswell, 2014).

However, there is no conclusive method for qualitative researchers to follow in order to establish steadiness validity and trustworthiness of reliability. Indeed, several suggestions emerge to address this issue.

Neuman (2013) suggests that validity “*a genuine concern for an interest in others, being honest, and sharing feelings are good strategies.*”

Creswell (2014) agreed with Gibbs (2007) and argued that “*qualitative validity means that the researcher checks the accuracy of the findings using specific procedures, whereas qualitative reliability means that the researcher’s approach is consistent across different researchers and projects.*”

According to Yin (2003), qualitative researchers should record case study procedures and as many steps as possible. He also suggests creating a research protocol and database in detailed to enhance the validity and reliability as applied in this study.

As suggested by Creswell (2014), this study triangulates the data gathered from the interviews by using the observational method to construct a logical justification

for themes. Creswell also argued “*If themes are established based on converging several sources of data or perspectives from participants, then this process can be claimed as adding to the validity of the study.*”

This study also used a thick description in express finding, as suggested by Creswell (2014), by providing multiple perspectives on a theme to make the results more realistic and rich. At the same time, as Neuman (2013) suggests, this research was conducted in a natural setting or connotes natural history with no manipulation of the unit of analysis.

Simultaneously, this study follows Gibb’s (2007) suggestion for a reliability procedure by examining transcripts to avoid significant transcription errors such as changes in the interpretation of codes or shift in the description of codes during the coding process.

Last but not least, as Neuman (2013) suggested, this study used *Penghulu* (headman) as renowned individuals during data collection to avoid human deception and ensure internal consistency throughout the interview session, specifically *Kintak’s* informant.

#### **5.12 Data Analysis**

The process of data analysis gives order, structure, and meaning to research data and becomes the most challenging aspect particularly qualitative research. Apart from that, the research methods used in the research process determine the method of data analysis. In research traditions, two types of data analysis methods arisen: qualitative data analysis and quantitative data analysis. However, this study employed qualitative data analysis since the data collection method used interview and observation data.

Accordingly, the descriptive data from the demographic information were analyzed using IBM SPSS Statistics version 22.0 (Refer Appendix M and Appendix N). However, since this study falls under qualitative research, the finding was not presented in the form of a table or chart, nor was there any statistical analysis. Instead, it is presented in the form of text, quantities, and distributions. While narrative data from interviews and observations analyzed using Nvivo 8.4 and presented as coding in a text file or verbatim for thematic analysis, as suggested by Braun and Clarke (2006) and Creswell (2016) as follows (Refer Appendix O, Appendix P, Appendix Q, Appendix R; and Appendix S):

**Table 7: Thematic Analysis Guides**

<b>Creswell (2016)</b>	<b>Braun and Clarke (2006)</b>
a. Set up your transcript for easy coding.	a. Phase 1: Familiarizing yourself with your data
b. Read through each text to get a general sense of it.	b. Phase 2: Generating initial codes
c. Code each text.	c. Phase 3: Searching for themes
d. List all of the codes.	d. Phase 4: Reviewing themes
e. Group the codes to eliminate redundancy and overlap.	e. Phase 5: Defining and naming themes
f. Write a theme passage.	f. Phase 6: Producing the report
g. Create a conceptual map of the themes.	

As a consequence, since most of the above suggestion's methods sound similar and complement one other, this study merged these two guidelines and details data analysis was carried out as follows:

- a. Repeated listening (at least twice) to audio recordings and reading notes taken from interviews and observations in order to become familiarized with the data;

- b. Translating into Malay language since all respondents spoke Malay throughout the interviews, regardless of whether *Kintak* or *non-Kintak*.
- c. Transcribing verbatim and reading several times for data cleaning and determining the scope of the data before uploading into analysis software - Nvivo 8.4;
- d. Analyzing and organizing transcripts for coding and constructing themes based on research objectives;
- e. Reviewing themes several times to avoid redundancy and overlap before storing in separate files for theme and sub-theme categorization.; and
- f. Administrating the theme and sub-themes and writing the findings.

Eventually, the pre-determined themes for this study are constructed on research objectives such as needs and expectations; types and levels of utilization; factors influencing utilization; and barriers to utilization in investigating the utilization of new media in *Kintak's* lives. As a result, each of these pre-determined themes is supplemented by its respective sub-themes, which are minor but distinct and trustworthy results gathered from the interview and observation.

Finally, the study's analyzed data is written in the form of texts and detailed descriptions to explore and understand *Kintak's* standpoint on the utilization of new media based on the theme and sub-theme presented. The table below details the data analysis method based on the research objectives:

**Table 8: Data Analysis Method based on Research Objective**

No.	Research Objective	Data Collection	Data Analysis	Analysis Tool
1	Demographic information	Interview Observation	Descriptive	SPSS 22.0
2	To find out the needs and expectations of new media among <i>Kintak</i> .	Interview Observation	Thematic	Nvivo 8.4
3	To measure the type and level of utilization of new media among <i>Kintak</i> .	Interview Observation	Thematic	Nvivo 8.4
4	To investigate the factor affecting utilization of new media among <i>Kintak</i> .	Interview Observation	Thematic	Nvivo 8.4
5	To identify the barrier of utilization of new media among <i>Kintak</i> .	Interview Observation	Thematic	Nvivo 8.4

### 5.13 Summary

All in all, qualitative research provides a way to make sense of the complexities inherent in the research traditions. It allows researchers to see beyond own prejudices and immerse ourselves in the worlds of others. Most importantly, it enables to observe patterns of behavior in real-world settings to comprehend both rationally and intuitively. The distinctions between methods and methodology, as well as qualitative and quantitative research, are described in this study. The distinctions between exploratory, descriptive, and explanatory research were discussed since qualitative research is the work of describing naturalistic investigations that are based on multiple philosophical traditions of people. Prior to that, it discusses research philosophy and research type. This chapter also discussed the justification for choosing qualitative as an approach and case study as a design for this study. Population and sampling, reliability and validity, and the procedures

and protocols for the various data collection and data analysis methods used in this study were also discussed. The result or findings will be presented in the following chapter in the form of a thick description.

