

## CHAPTER III

### RESEARCH METHODOLOGY

In this chapter, the researcher introduces the research methodology and analysis used for this study. It consists of several subsections. There are research methods, research subjects, data sources, data collection techniques, research data validity, and data analysis techniques.

#### A. Research Method

This research is qualitative. Qualitative research produces descriptive data in the form of spoken or written words from people who are the subjects or objects of research. The qualitative method is a method that describes and reveals events that occur in the field naturally. Qualitative research methods are based on post-positivism philosophy and are used for research under natural conditions. The researcher is the primary instrument, the data collection technique is triangulation (combined), the data analysis is qualitative, and the findings emphasize meaning rather than generalization.<sup>1</sup>

The research design used in this research is descriptive research. Descriptive research is a study that seeks to observe a problem systematically and accurately regarding the facts and characteristics of certain objects. Descriptive research aims to explain and describe facts based on a certain frame of mind.<sup>2</sup> This study uses a qualitative descriptive research technique with content analysis. Content analysis is the study of in-depth discussion of the content of written information. Content analysis can be used to analyze documents, books, and others.<sup>3</sup> In line with Ricard Budd, he argued that this analysis is a systematic technique for analyzing message content and processing messages or a tool for observing and analyzing open

---

<sup>1</sup> Abubakar, *Pengantar Metodologi Penelitian.*, (Yogyakarta: SUKA Press, 2021), 4.

<sup>2</sup> Mahmud, *Metode Penelitian Pendidikan.*, (Bandung: CV Pustaka Setia, 2011), 100.

<sup>3</sup> Rukminingsih, Adnan, and Latief, *Metode Penelitian Pendidikan Penelitian Kuantitatif, Penelitian Kualitatif, Penelitian Tindakan Kelas.*, (Yogyakarta: Erhaka Utama, 2020), 96.

communication behavior from selected communicators.<sup>4</sup> Content analysis in this study was used to test the representation of higher thinking skills (HOTS) in the reading comprehension questions available in the English Exam Questions issued by Islamic education organizations in Jepara in 2022, as well as the disclosure of test item levels based on CEFR.

The qualitative descriptive method used in this study is intended to obtain in-depth information about the research object. Then the research results are narrated, described, and analyzed in detail according to the information obtained in the field, without any modification, so the data is processed and analyzed into a unified whole. This study attempts to describe the conditions observed in the field more specifically, transparently, and in-depth so that the data collected is descriptive to identify HOTS representations in English exam questions. In this study, the researcher used a qualitative descriptive method because the researcher wanted to examine the representation of higher-order thinking skills available in the English exam questions. In this case, the qualitative descriptive research method was appropriate for this study.

The research design begins with a preliminary study, namely determining documents that can be analyzed for the availability of higher-order thinking skills (HOTS). Next, analyze the questions in the English exam questions. According to the revised version of the Bloom taxonomy with a 3-dimensional model, these questions were analyzed based on the category of higher-order thinking skills. Then qualify and calculate the percentage of HOTS and LOTS type questions found at the three levels of exam questions. Besides that, it also calculates which aspects of higher-order thinking skills are most represented on the exam question sheets.

## **B. Research Subject**

Research subjects in qualitative research can be objects, things, or people that can be used as sources of information needed in collecting research data. The research subjects in this study are the English exam questions for grades 10, 11, and 12

---

<sup>4</sup> Mahmud, *Metode Penelitian Pendidikan.*, (Bandung: CV Pustaka Setia, 2011), 105.

senior high schools in Jepara, issued by the organization in 2022/2023. The exam questions were used as research targets on the basis and consideration that the Islamic educational organization in Jepara had referred to the 2013 curriculum and should have followed the development of the Merdeka Belajar curriculum. Therefore, the questions should also contain questions that can improve students' thinking skills. In this case, the researcher refers to the English exam questions as a data source to analyze the availability of questions to improve thinking skills.

### C. Data Sources

Data sources are subjects that provide data information that can be found for research. The data in this study are related to English exam questions and the availability of higher-order thinking skills questions. The data sources are as follows:

#### 1. Primary Data

Sources that can provide information data to the researcher directly are called primary data or, first and foremost data sources.<sup>5</sup> The primary data source in this research is the English exam question at the senior high school, which would be tested in a school in Jepara in the academic year 2022/2023. The English exam questions were used as a whole question. However, in this study, the questions analyzed based on the revised Bloom's Taxonomy were only focused on the reading comprehension questions. The English exam questions in the reading section were selected in this study and used as objects to analyze the availability of HOTS because reading is recognized as the most suitable skill used to measure HOTS. In addition, reading comprehension is an important skill that can exercise students to practice all levels of cognitive skills.

#### 2. Secondary Data

Secondary data sources are additional data or complementary data that are complementary to existing data that can provide information data indirectly to the

---

<sup>5</sup> Hardani et al., *Buku Metode Penelitian Kualitatif & Kuantitatif*. (Yogyakarta: CV. Pustaka Ilmu, 2020), 121.

researcher.<sup>6</sup> In this study, the researcher used secondary data from documentation, such as books, journals, the internet, and other data sources to support this research theory. One of the secondary data that supports the theory of higher-order thinking skills, the researcher uses a book by Susan M. Brookhart entitled *How to Assess Higher-Order Thinking Skills in Your Classroom*. As for the theory of Bloom's Taxonomy, the researcher uses a book by Anderson and Krathwohl entitled *A Taxonomy for Learning, Teaching and Assessing: A Revision of Bloom's Taxonomy of Educational Objectives*. In addition, secondary data was taken by the researcher from the interviews conducted between the researcher and the exam makers (the Islamic education organizations in Jepara) and interviews with English teachers.

#### **D. Data Collection Techniques**

Data collection techniques are the most important and strategic steps the researcher uses to collect the data needed to solve the research questions. That is because the main purpose of research is to obtain data. Without data collection techniques, the researcher cannot obtain data by established standards. In this research, the data collection was obtained through documentation and interviews.

##### **1. Documentation**

Documents are records of past events. Data collection techniques with documentation, namely collecting and analyzing data, whether written form documents, drawings, or someone's monumental work. Written documents include diaries, life stories, histories, biographies, regulations, and policies. Documents include images such as photographs, live images, and sketches. Documents in the form of works, such as works of art, can be pictures, sculptures, films, and others. Documents used for research can be official or unofficial, which can provide supporting information related to research problems.<sup>7</sup> In this study, the documents used for

---

<sup>6</sup> Hardani et al, (Yogyakarta: CV. Pustaka Ilmu, 2020), 121.

<sup>7</sup> Dr. Umar Sidiq, M.Ag Dr. Moh. Miftachul Choiri, *Metode Penelitian Kualitatif Di Bidang Pendidikan.*, Edisi Pertama, vol. 53 (Ponorogo: CV. Nata

research were English language test text documents issued by Islamic Educational Organizations in Jepara.

The steps taken by the researcher to collect data are as follows;

- a) The researcher is looking for English exam questions issued by one of the Islamic education organizations from Jepara.
- b) The researcher read the questions and made in-depth observations of the object of study in this study, namely the English exam question sheets.
- c) The researcher collects and writes a list of questions contained therein. In this step, the researcher divides the questions list according to the class level.
- d) The researcher analyzed and grouped the questions by writing six domains of cognitive processes based on Bloom's Taxonomy revised edition.
- e) The researcher summed up and concluded the results of the distribution of the questions.

## 2. Interview

An interview is a technique that aims to collect certain information that is appropriate to the material obtained through verbal and direct debriefing between the researcher and the informant. The interview technique in this study was structured in which the researcher defines the problem and asks questions to find information using interview guidelines. However, the researcher also develops these questions to obtain more meaningful information.

In interviews to obtain data, sometimes the researcher conducts in-depth interviews, but sometimes not in-depth. In-depth interviews or in-depth interviews are a process of obtaining information through face-to-face questioning conducted by the researcher with informants, without alternative answer choices, and carried out to explore information from an informant.<sup>8</sup> Several informants who were believed to be able to provide valid information about

---

Karya, 2019), 73. [http://repository.iainponorogo.ac.id/484/1/Metode Penelitian Kualitatif Di Bidang Pendidikan.pdf](http://repository.iainponorogo.ac.id/484/1/Metode%20Penelitian%20Kualitatif%20Di%20Bidang%20Pendidikan.pdf).

<sup>8</sup> Afrizal, *Metode Penelitian Kualitatif: Sebuah Upaya Mendukung Penggunaan Penelitian Kualitatif Dalam Berbagai Disiplin Ilmu.*, (Jakarta: Rajawali Pers, 2015), 136.

the research conducted were interviewed to collect data, including one from an Islamic education organization in Jepara or an English exam maker, an English teacher at one of the senior high schools in Jepara. In this study, the researcher conducted interviews with the aim of additional data in obtaining research data.

### **E. Research Data Validity**

In qualitative research, research data must be tested for its validity so that it is reliable, valid, and of value. One of the strengths of qualitative research is validity. It is based on judging whether the data results are correct from the point of view of researchers, participants, and report readers.<sup>9</sup> Data validity in a study is very important. Especially in qualitative research, which has the characteristics of post-positivism that truth is not absolute. Researchers must try to get valid data in collecting data. For this reason, researchers need to check the validity of the data so that incorrect data information is not found or does not match the context.<sup>10</sup> The implementation of data-checking techniques is based on certain criteria. 4 criteria can be used, namely Credibility (to check the validity of the data), Transferability (to determine whether the research results can be transferred to other areas), Dependability (to determine the reliability), and Confirmability (to find out the research results are correct and can be reviewed for compatibility between process and product).<sup>11</sup>

In this study, the researcher tested the validity of the data by using a data credibility test or trust in the research data. Testing the Credibility can be done with several techniques, namely, triangulation, member checking, and auditing. However, what the researcher needs to use is triangulation. Triangulation is the process of getting a 'fix' from various

---

<sup>9</sup> Creswell, "Research Design: Qualitative, Quantitative, and Mixed Methods Approaches." 4<sup>th</sup> Ed, (California: SAGE Publication, 2014). <https://doi:10.1007/s10055-009-0117-2>.

<sup>10</sup> Dr. Umar Sidiq, M.Ag Dr. Moh. Miftachul Choiri, *Metode Penelitian Kualitatif Di Bidang Pendidikan.*, Edisi Pertama, vol. 53 (Ponorogo: CV. Nata Karya, 2019), 88.

<sup>11</sup> Bachri, "Meyakinkan Validitas Data Melalui Triangulasi Pada Penelitian Kualitatif." *Teknologi Pendidikan*, vol. 10, 2010.

points of view,<sup>12</sup> which means using various data, using more than one theory, several analytical techniques, and involving more researchers.<sup>13</sup> Triangulation data testing consists of three strategies, including:<sup>14</sup>

#### 1) Source Triangulation

Source triangulation to test data credibility is done by reviewing data obtained from multiple sources. This method compares data by cross-checking information from various sources, documentation, and interviews. Data from various sources are then described, categorized, and examined to determine which views are the same, different, and specific. Then the analyzed data is used to conclude, and the agreement is obtained from several research data sources. In this triangulation, the researcher did cross-check English exam questions to one of the high school seniors, English teachers, and Islamic education organizations in Jepara.

#### 2) Technique Triangulation

Triangulation techniques for testing data credibility are performed by checking data from the same source using different techniques. Technical triangulation is done by collecting data from interviews with exam makers and English teachers, then checking with observation or documentation techniques. If several techniques provide different data results, researchers must discuss with related data sources or other parties to verify which data is correct or all are correct due to different perspectives. In this triangulation technique, after the researcher collects the data, then consults the results with the test takers (Islamic education organizations), English teachers, and experts/lecturers.

#### 3) Time Triangulation

Credibility data is also often affected by time. Differences in data collection time can result in differences in data acquisition. Therefore, data verification with time

---

<sup>12</sup> A Maolani and Cahyana, *Metode Penelitian Pendidikan.*, (Jakarta: Rajawali Pers, 2015), 193.

<sup>13</sup> Raco, "Metode Penelitian Kualitatif: Jenis, Karakteristik Dan Keunggulannya." (Jakarta: PT Grasindo, 2010), 135.

<sup>14</sup> Abubakar, *Pengantar Metodologi Penelitian.*, (Yogyakarta: SUKA Press, 2021), 131.

triangulation is important to ensure the Credibility of research data. Data is collected using interview techniques in the morning when informants are fresh and less problematic, provide more valid data, and are more credible. Therefore, interviews or other techniques can be performed at different times and under different circumstances to confirm the credibility of the data.<sup>15</sup>

## F. Data Analysis Technique

Data analysis compiles data sequences and organizes them into patterns, categories, and basic descriptive units.<sup>16</sup> After the researcher collects data in the field through documentation and interviews related to the topic and discussion in this study, the researcher needs to record in detail carefully and then analyze it by reducing the information obtained from the field. Data reduction means summarizing and selecting the most important, focusing on the next most important things, choosing patterns and themes, and removing the unnecessary. Data analysis is processing data from interviews and documentation, then collecting and classifying them to find answers to the research problem.

The researcher uses a checklist table to reduce, analyze and categorize the representation of the lower/higher-order thinking skills available in the English exam questions. The checklist table consists of questions and classification types of lower skills (C1 – C3) or higher skills (C4 – C6). The checklist table formula is as follows.

---

<sup>15</sup> Dr. Umar Sidiq, M.Ag Dr. Moh. Miftachul Choiri, *Metode Penelitian Kualitatif Di Bidang Pendidikan.*, Edisi Pertama, vol. 53 (Ponorogo: CV. Nata Karya, 2019), 96.

<sup>16</sup> Alifuddin and Saebani, *Metodologi Penelitian Kualitatif.* 2<sup>nd</sup> ed (Bandung; CV Pustaka Setia, 2012), 145.



**Table 3.1. Checklist Table – Distribution of thinking skills based on Bloom Taxonomy cognitive domains**

No.	Reading Exam Questions	Topics	Cognitive Process Domain						Knowledge Dimension
			LOTS			HOTS			
			C1	C2	C3	C4	C5	C6	

The researcher first reads the questions used as research subjects to answer research question number one. Next, the researcher writes a list of questions in the reading section available in the exam questions. Then, the researcher analyzed the cognitive domain of each question based on Bloom’s 3-dimensional model taxonomy and classified them into higher-order thinking levels, starting from analyzing, evaluating, and creating.

Furthermore, in answering research question number two, the researcher reveals the reasons/causes for these questions, categorized as cognitive domains ranging from remembering to creating. In addition to analyzing the questions, the researcher used the CEFR scale to find the standard questions used in final exams for English subjects, starting from levels A1 to C2.

