#### **CHAPTER II**

## **REVIEW OF RELATED LITERATURE**

This chapter review some theories and previous studies related to the topic. Theories related to the topic are definition of qualitative research and data analysis, difficulties in analyzing qualitative data, causes of difficulties in analyzing qualitative data and previous study related to this research.

## A. Review of Related Literature

## 1. Qualitative Research

## a) Definition of Qualitative Research

There are many phenomenon in the world, they are exist in every field such as in education, economy, politic, religious, etc. Many people study about them to understand the phenomenon. Qualitative research is needed as a method which has characteristic of studying about central phenomenon. According to Vanderstoep and Johnston, qualitative research produces narrative or textual descriptions of the phenomena under study.<sup>1</sup> Creswell also stated that qualitative research means for exploring and understanding the meaning individuals or groups ascribe to a social or human problem. The process of research involves emerging questions and procedures, data typically collected in the participant's setting, data analysis inductively building from particulars to general themes, and the researcher making interpretations of the data.<sup>2</sup> Moreover, it is important

<sup>&</sup>lt;sup>1</sup> Vanderstoep, Scott W. And Johnston, Deirdre D. research. *RESEARCH METHODS FOR EVERYDAY LIFE Blending Qualitative and Quantitative Approaches*. USA : Jossey-Bass, 2009.

<sup>&</sup>lt;sup>2</sup> Creswell. W, John. *Research Design : qualitative, quantitative, mix method.* USA: SAGE Publication, 2009.

for the researcher to understand the characteristic and the function of method to conduct the research.

## b) Characteristics of Qualitative Research

In qualitative research, Creswell stated that there are some characteristics in each stage of the research process:

- Finding a problem and developing a detailed understanding of a central phenomenon
- Having the literature review that play insignificant role but explain the problem.
- Stating the purpose and research questions in a general based on the participants' experiences
- Collecting data based on words from a small number of individuals so that the participants' views are gained
- Analyzing the data for making description and pattern using text analysis and interpreting the larger meaning of the findings
- Writing the report using flexible, emerging structures and evaluative criteria, and including the researchers' subjective reflexivity and bias.

Based on the characteristics above, qualitative research is used to solve the problem of a central phenomenon by finding theoretical and practical knowledge to analyze and solve the problem. There is no small number and statistical method in this research, it only focuses on the phenomenon to analyze and interpret the data also give conclusion.

### c) Qualitative Data

Qualitative data is the data taken from instruments that used as method of qualitative research. According to Ary the most common data collection methods used in qualitative research is (1) observation, (2) interviewing, and (3) document analysis. In this case, artifacts may include audio and video recordings, photographs, games, artwork, or other items that provide insight related to the context or participants.<sup>3</sup>

1) Observation

Observation is a method used to gain data in qualitative research. Qualitative observation usually takes more time than quantitative observation. It is used to understand the context of phenomenon rather than test hypothesis. Quantitative observations often use checklists. The goal of this method is to understand complex interactions in natural settings.

2) Interview

Interview is one of the most methods used to get qualitative data. Interviews are used to gather data from people about opinions, beliefs, and feelings about situations used their own words. The subjects are interviewed by using who, what, when, where, why, and how. Interviews also can be used to verify observations. For example, observing students behavior in a

<sup>&</sup>lt;sup>3</sup> Ary, Donald.et. al. Introduction to Research in Education Eighth Edition. (Canada : Cengage Learning, 2009)

classroom and interviewing to the teacher to get deep information about students' behavior.

3) Documents

Qualitative research uses written documents to gain an understanding of the phenomenon under study. Documents can be personal, such as autobiographies, diaries, and letters; official files such as, reports, memoranda, or minutes; or documents of popular culture, such as books, films, and videos. Document can be in the form of written or text-based such as textbooks, novels, journals, meeting minutes, logs, announcements, policy statements, newspapers, transcripts, birth certificates, marriage records, budgets, letters, e-mail messages, etc. It also can be in the form of such as photographs, audiotapes, videotapes, computer images, websites, musical performances, televised political speeches, YouTube videos, virtual world settings, etc.

## 2. Data Analysis

#### a) Definition of Data Analysis

Data analysis is very familiar in term of research, especially in chapter 4 of a thesis. Data analysis consists of finding and discussion. It is chapter where the researcher analyzes and interprets the data. Ary stated that data analysis is a process whereby researchers systematically search and arrange the data in order to increase their understanding of the data

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and to enable them to present what they learned to others.<sup>4</sup> This step describes about how the researcher analyzes the data. It describes systematically such as transcribing the interview, categorizing the data, and other important things to report the data. Thus, it is important to review and understand the data before analyze them in order to get the valid data.

## b) Difficulty in Analyzing Qualitative Data

Qualitative research is flexible and complex. It has various forms depending on the research question the researchers want to answer. As cited in Dickson and friends, they argued that the reporting of qualitative data may be one of the most fertile fields going: there are no fixed formats, and the ways data are being analyzed and interpreted are getting more and more various.<sup>5</sup> It also has complicated phases in data analysis. This statement is supported by Ary statement that data analysis is the most complex and mysterious phase of qualitative research.<sup>6</sup> . Therefore, the complexity and the various formats in qualitative research can be solved by some strategy used by the research in analyzing qualitative data.

The qualitative researchers face some difficulties to understand and interpret the information from qualitative data. It is supported by Ary statement that data analysis in qualitative research is a time-consuming

<sup>&</sup>lt;sup>4</sup> Ary, Donald. Introduction to Research in Education Eighth Edition. (Canada : Cengage Learning, 2009)

<sup>&</sup>lt;sup>5</sup> Dickson, Virginia. *Doing sensitive research: what challenges do qualitative researchers face?*. (Australia: La Trobe University, 2007)

<sup>&</sup>lt;sup>6</sup> Ary, Donald.et. al. Introduction to Research in Education Eighth Edition. (Canada : Cengage Learning, 2009)

and difficult process because typically the researcher faces massive amounts of field notes, interview transcripts, audio recordings, video data, reflections, or information from documents, all of which must be examined and interpreted.<sup>7</sup> Besides, he argued that interpreting qualitative data is difficult because there are no set rules to follow. The quality of the interpretation depends on the background, perspective, knowledge, and theoretical orientation of the researcher and the intellectual skills that brings to the task.<sup>8</sup> It becomes barrier for the qualitative researcher to finish their analysis because analysis involves reducing and organizing the data, synthesizing, searching for significant patterns, and discovering what is important.

## c) Stages of Qualitative Data Analysis

A good analysis is systematically describe the data and easy for the readers to understand of what the researchers had found. It consists of some steps to achieve it. There are many stages in analyzing qualitative data according to some researcher like follow.

# 1. According to Taylor- Powell there are four major steps to this process:<sup>9</sup>

a) Review the data.

<sup>&</sup>lt;sup>7</sup> Ary, Donald.et. al. *Introduction to Research in Education Eighth Edition*. (Canada : Cengage Learning, 2009)

<sup>&</sup>lt;sup>8</sup> Ary, Donald.et. al. *Introduction to Research in Education Eighth Edition*. (Canada : Cengage Learning, 2009)

<sup>&</sup>lt;sup>9</sup> Taylor- Powell E. *Analyzing Qualitative Data*. University of Wisconsin Cooperative Extension, 2004. Available at <u>http://learningstore.uwex.edu/pdf/G3658-12.PDF</u>

It is important to understand the data before analyzing the data. Reviewing the data several times, for example, if the data consist of interview transcripts read and re-read the transcripts until have a general understanding of the content. While reviewing, taking notes is important when interpret the data.

b) Organize the data.

Qualitative data sets tend to be very lengthy and complex. Organizing the data is important in order to be easy to navigate. This can save time and energy later.

c) Code the data.

Coding is the process of identifying and labeling themes in the data. Label themes that are suitable with the research questions. Themes are common trends or ideas that appear repeatedly through the data.

d) Interpret the data.

Interpretation involves making sense of the data. Creswell stated that interpretation in qualitative research means that the researcher steps back and forms some larger meaning about the phenomenon based on personal views, comparisons with past studies, or both.<sup>10</sup>

Interpreting the data include some section such as

<sup>&</sup>lt;sup>10</sup> Creswell, John W. Educational Research Planning, Conducting, and Evaluating Quantitative and Qualitative Research. (USA : Pearson, 2012)

- A review of the major findings and how the research questions were answered
- Personal reflections of the researcher about the meaning of the data
- Personal views are compared or contrasted with the literature
- Limitations of the study
- Suggestions for future research
- 2. Other steps in analyzing the data also specify into three by Ary as follows. Those are:<sup>11</sup>
  - a) Organizing and familiarizing

The first stage in qualitative research involves familiarizing and organizing to get understanding of the data. The researcher should understand well and familiar with the data through reading and re reading transcripts, viewing and reviewing video tapes and listen repeatedly to the audio tapes. Organizing information is begun after familiarizing; organizing the information through completed the list of data sources. The data can be organized in a various ways, such as, by interview, by questions, by people, or by places.

b) Coding and reducing

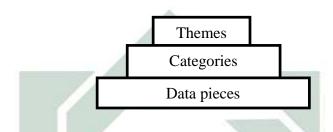
<sup>&</sup>lt;sup>11</sup> Ary, Donald.et. al. Introduction to Research in Education Eighth Edition. (Canada : Cengage Learning, 2009)

After familiarizing and organizing the data in order to be easy to navigate. The qualitative researcher can begin the coding and reducing process. This is the essential step of qualitative analysis that includes the identification of categories, themes and their modification.

For instance in book store, it consist of book with categorization like mathematic book, science book, English book and others. It also can be categorized into subcategorized such as, mathematic book for elementary student, mathematic book for senior high school or junior high school.

Coding is about developing concepts from the raw data. The most common approach is to read and reread all the data and sort them by looking for units of meaning such as words, phrases, sentences, and subjects' ways of thinking, behavior patterns, and events that seem to appear regularly and that seem important. Each unit of meaning label should be understandable without any additional information. Each unit of meaning will be used later. Coding uses as many as codes that needed. These will be reduced later. Labeling or coding of items is done in order to begin to recognize differences and similarities in the data. The number of categories developed will depend on the type of data collected, the focus of inquiry, and the researcher's analytic skills. If the number of categories is very large, the researcher should be collapsed into a manageable number. The researcher can code into small bits and categorizing re-sorts the codes into bins, developing themes involves looking for connections and relationships. Generating themes is the most difficult and challenging process of analysis. Below are the levels of data analysis in a data pyramid.

Figure 2.1 Data Pyramid



c) Interpreting and representing

Interpreting involves reflecting about the words and acts of the study's participants and abstracting important understandings from them.<sup>12</sup> It is an inductive process in which the researcher makes generalizations based on the connections and common aspects among the categories and patterns. The researcher may develop hypothesis that have evolved during the analysis. Interpretation is about bringing out the meaning, telling the story, providing an explanation, and developing reasonable explanations.

In interpreting qualitative data, the researchers should confirm what they have already known and supported by the data. Although interpretation is personal and proceeds without set rules, it is does

<sup>&</sup>lt;sup>12</sup> Ary, Donald.et. al. Introduction to Research in Education Eighth Edition. (Canada : Cengage Learning, 2009)

not mean that the qualitative researcher can rely on personal feelings when interpreting the data. The interpretation cannot be just an illusion of the imagination but must be supported by the data.

The approach of interpretation is clearly affected by the particular qualitative approach used in the study. In narrative inquiry, the researcher is describing the larger meaning of the story. In phenomenology, the researcher is attempting to examine the "essence" of something using textual and structural descriptions. Ary stated that in grounded theory, interpretation involves developing propositions. Ethnographers are trying to make sense of how a culture works. A case study develops generalizations.<sup>13</sup> Each of these qualitative approaches is differing disciplinary bases that clearly influence how the data are interpreted.

- 3. Steps in analyzing qualitative data by Creswell also specify into three in Ary's Book.<sup>14</sup> Each step in Ary's book has each sub step according to Creswell like below.<sup>15</sup>
  - a) Data managing Reading or Memoing
    - 1) Prepare and Organize the Data for Analysis

<sup>&</sup>lt;sup>13</sup> Ary, Donald.et. al. *Introduction to Research in Education Eighth Edition*. (Canada : Cengage Learning, 2009)

<sup>&</sup>lt;sup>14</sup> Ary, Donald.et. al. Introduction to Research in Education Eighth Edition. (Canada : Cengage Learning, 2009)

<sup>&</sup>lt;sup>15</sup> Creswell, John W. Educational Research Planning, Conducting, and Evaluating Quantitative and Qualitative Research. (USA : Pearson, 2012)

In a qualitative study, initial data management consists of organizing the data, transcribing interviews and typing field notes, and making the decision to analyze the data by hand or by computer.

- b) Describing Classifying
  - 1) Explore and Code the Data

Qualitative researchers conduct a preliminary analysis of the data by reading through it to obtain a general sense of the data. Major analysis of qualitative data consists of coding the data. The process of coding is one of reducing a text or image database to descriptions and themes of people, places, or events. It involves examining the text database line by line, asking oneself what the participant is saying, and then assigning a code label to the text segment.

2) Coding to Build Description and Themes

Codes are used to develop descriptions of people and places. They are also used to develop themes that present a broader abstraction than codes. These themes may be layered or organized to tell a story, or they may also be interconnected to portray the complexity of the phenomenon.

- c) Interpreting Representing, visualizing
  - 1) Represent and Report Qualitative Findings

Qualitative researchers represent their findings in visual displays that may include figures, diagrams, comparison tables, and demographic tables. They report findings in narrative discussions comparing many forms, such as a chronology, questions, or commentary about any changes of the participants' experience.

2) Interpret the Findings

From the reporting and representing of the findings, qualitative researchers make an interpretation of the meaning of the research. This interpretation consists of advancing personal views, making comparisons between the findings and the literature, and suggesting limitations and future research.

3) Validate the Accuracy of the Findings

To check the accuracy of their research, qualitative inquirers often employ validation procedures such as member checking, triangulation, and auditing. The intent of validation is to have participants, external reviewers, or the data sources themselves provide evidence of the accuracy of the information in the qualitative report.

- 4. Steps in analysis qualitative data of Marshall and Rossman in Ary's Book also classifies some steps in analyzing data into three steps like follow:<sup>16</sup>
  - a) Organizing the data

<sup>&</sup>lt;sup>16</sup> Ary, Donald.et. al. Introduction to Research in Education Eighth Edition. (Canada : Cengage Learning, 2009)

Immersion in the data

b) Generating categories and themes

Coding the data

c) Offering interpretation through analytic memos

Searching for alternative understandings

Writing the report

- 5. Steps in analyzing data by Maxwell Ary's Book, those steps specify into three like below.<sup>17</sup>
  - a) Reading, listening
  - b) Coding, memoing, categorizing
  - c) Connecting, Reporting
- 6. Step in analyzing data by Wolcott in Ary's Book, those steps specify into three like below.<sup>18</sup>
  - a) Describe and highlight
  - b) Analyze and identify patterns
  - c) Contextualize, Display findings

## 3. The causes that make students difficult in analyzing qualitative data.

According to Ary, data analysis is the most complex and mysterious phase of qualitative research.<sup>19</sup> It means that there are some parts in analyzing data of qualitative that underline those phenomena of complexity and mystery

<sup>&</sup>lt;sup>17</sup> Ary, Donald.et. al. *Introduction to Research in Education Eighth Edition*. (Canada : Cengage Learning, 2009)

<sup>&</sup>lt;sup>18</sup> Ary, Donald.et. al. *Introduction to Research in Education Eighth Edition*. (Canada : Cengage Learning, 2009)

<sup>&</sup>lt;sup>19</sup> Ary, Donald.et. al. *Introduction to Research in Education Eighth Edition*. (Canada : Cengage Learning, 2009)

phases. Commonly causes that make students difficult in analyzing data are like follows:

Lack of reading book dealing with research method will affect students' process in analyzing qualitative data. Consequently, the more students read and understand about the research method the more possibility for the students to success in the process of analyzing the data. In addition, to Analyze the data consist of some steps, if students stuck in one step, they can't continue to the next step. Furthermore, reading is also one of receptive skill that allows students to receive knowledge from what they have already read. According to Harmer, reading provide student understanding more or less and also provide good model for English Writing.<sup>20</sup> Therefore, lack of reading will affects students' process in analyzing the data because reading can provide a model of what they have read.

The previous point assumes that knowledge of Research Method enables students to success in the process of analyzing the data. However, analyzing the data is not as simple as the theories that are shown in some books of research. The students are demanded to familiarize the theory of the research analysis through the field practice. In the other word, understanding all steps of analyzing qualitative data is not enough for students until they explore their knowledge by practice. Niedderer and Roworth stated that the use of practice in research in two ways. Firstly, practice can be used in the process of research as a method to generate or acquire knowledge; secondly,

<sup>&</sup>lt;sup>20</sup> Harmer, Jeremy. *How to Teach English.* San Francisco California: Longman. 2001

it can be produced as an outcome of the research that is to embody knowledge.<sup>21</sup> It can be concluded that student should make it balance both theory and practice. Practice can enable students to generate their knowledge of what they have already known.

Reread the data is suggested by many researchers to familiarize and understanding the data. Creswell stated that qualitative researchers conduct a preliminary analysis of the data by reading, through it to obtain a general sense of the data.<sup>22</sup> It means that through Reread the data will give qualitative researcher to get more detail of understanding toward the data. In other hand, Lack understanding of the data can make students find difficulty in analyzing the data.

The theory has significance role in the research because it underlies the researcher of conducting a research. As Leedy and Ormrod pointed Tavallaei's Journal out that a theory is an organized body of concepts and principles intended to explain a particular phenomenon.<sup>23</sup> It also agrees with Johnson & Christensen that theories explain "How" and "Why" something operates as it does.<sup>24</sup> Besides that, Boss and friends in Tavallaei's Journal also stated that theorizing is the process of systematically formulating and

<sup>&</sup>lt;sup>21</sup> Niedderer, Kristina and Roworth-Stokes, Seymour. *The Role and Use of Creative Practice in Research and Its Contribution to Knowledge*. United Kingdom: University of Wolverhampton, 2007.

<sup>&</sup>lt;sup>22</sup> Creswell, John W. Educational Research Planning, Conducting, and Evaluating Quantitative and Qualitative Research. (USA : Pearson, 2012)

<sup>&</sup>lt;sup>23</sup> Tavallaei, Mehdi and Mansor, Abu Talib. A General Perspective on Role of Theory in Qualitative Research. retrived from <u>www.sosyalarastirmalar.com/cilt3/sayi11pdf/tavallaei\_abutalib.pdf</u>

<sup>&</sup>lt;sup>24</sup> Mehdi Tavallaei and Mansor Abu Talib. A General Perspective on Role of Theory in Qualitative Research. retrived from <u>www.sosyalarastirmalar.com/cilt3/sayi11pdf/tavallaei\_abutalib.pdf</u>. Accessed on 6 June 2015

organizing ideas to understand a particular phenomenon.<sup>25</sup> Creswell also stated that depending on the type of research design, role of theory varies.<sup>26</sup> Yin in Tavallaei's Journal Tavallaei's Journal argues that the case study research needs identification of the theoretical perspective at the beginning of the investigation because it affects the research questions, analysis, and interpretation of findings.<sup>27</sup> It can be concluded that theory is a body of concept and also can explain the phenomenon. In contrary, difficult to find the theory will make students difficult to explain the problems.

#### 4. The Solution to Overcome Difficulty in Analyzing Qualitative Data

Based on the complexity of analyzing qualitative data, there are some solutions suggested by researcher to overcome the difficulty in analyzing data. Those as follows:

Reread the data is suggested by many researchers to understand the data, as Creswell stated that Qualitative researchers conduct a preliminary analysis

 <sup>&</sup>lt;sup>25</sup> Mehdi Tavallaei and Mansor Abu Talib. A General Perspective on Role of Theory in Qualitative Research. retrived from <u>www.sosyalarastirmalar.com/cilt3/sayi11pdf/tavallaei abutalib.pdf</u>. Accessed on 6 June 2015
<sup>26</sup> Creswell, J. W. Qualitative Inquiry research Design: Choosing among Five Approaches (Second ed.). Thousand Oaks, (California: Sage Publications. 2007)

<sup>&</sup>lt;sup>27</sup> Mehdi Tavallaei and Mansor Abu Talib. A General Perspective on Role of Theory in Qualitative Research. retrived from <u>www.sosyalarastirmalar.com/cilt3/sayi11pdf/tavallaei\_abutalib.pdf</u>. Accessed on 6 June 2015

of the data by reading through it to obtain a general sense of the data. It means reread the data will give the qualitative researcher understanding more and be familiar with the data, it will make the researcher easy to navigate and organize the data. Then, it also makes the researcher easier to categorize the data in the next steps.

Read some sources such as Read book, thesis or searching in internet are the best ways to improve students' knowledge. Reading is one of English skill which is a kind of receptive skill. According to Harmer, reading provides student understanding more or less and also provides good model for English Writing.<sup>28</sup> It means that reading is very useful for student. In Brief, Reading will give students more knowledge and they can model their understanding in the form of writing.

Teacher or lecture as the facilitator for students,<sup>29</sup> they have many experience and knowledge to share with the students. They have role to guide and teach the students, as Harmer said that Teaching means to give (someone) knowledge or to instructor to train (someone).<sup>30</sup> It is also supported by Brown, he stated that teaching is showing or helping someone to learn how to do something, giving instruction, guiding in the

<sup>&</sup>lt;sup>28</sup> Harmer, Jeremy. *How to teach English*. San Francisco California: Longman. 2001

<sup>&</sup>lt;sup>29</sup> Wilson, Maria. Teacher as facilitator. <u>http://www.brown.edu/academics/education-alliance/teaching-</u> diverse-learners/teacher-facilitator. Accessed on January 5, 2016

Harmer, Jeremy. How to teach English. San Francisco California: Longman. 2001

study of something, providing with knowledge, causing to know or understand.<sup>31</sup> In brief, advisor or lecture can teach and help student to solve their problems.

Discuss with fiends is a kind of personal development. It is suggested by many researchers. As many people do discussion happen everywhere, it can be in social media, in learning management system (LMS) or MOOC such as COUSERA. or even in internal and external community or organization at university. As stated by Schmitz, The problem-solving process involves thoughts, discussions, actions, and decisions that occur from the first consideration of a problematic situation to the goal.<sup>32</sup> It is also supported by the previous study which was conducted by Irdiyansyah, he stated that to overcome the difficulties in analyzing experimental statistical data, sharing to friends become solution to overcome difficulties in analyzing experimental statistics data calculation.<sup>33</sup> It means that discussion becomes familiar activities for students of university and it becomes personal development to improve their knowledge.

#### **B.** Review of Previous Research

In this part, the researcher review the previous study related to this research that has similar focus. There are some previous studies related to

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<sup>&</sup>lt;sup>31</sup> Brown, H. Douglas. *Principles of Language Learning and Teaching: Fifth Edition*. (United States of America: Pearson Education. 2007)

<sup>&</sup>lt;sup>32</sup> Schmitz, Andy. A Primer on Communication Studies. Retrieved from <u>http://jsmith.cis.byuh.edu/books/a-primer-on-communication-studies/s14-03-problem-solving-and-decision-m.html</u>. Accessed on 7 January, 2016

<sup>&</sup>lt;sup>33</sup> Irdiyansyah, Iyan. *Students' Difficulties in Analyzing Experimental Statistic Data*. Faculty of Teacher Training and Educational Sciences. Pakuan University, 2009.

this research. The first comes from Irdiyansyah with thesis title "Students' Difficulties in Analyzing Experimental Statistics Data".<sup>34</sup> In his research, he described about the factors of students' difficulties in Analyzing Experimental Statistics Data and the solution of difficulties in analyzing the qualitative data. He used documentation, questioner and interview as instrument of the research. The result of this research showed that those factors causing difficulties in experimental statistics data calculation are: First, they seldom read experimental statistic data processing. Second, the experimental formula is more difficult from others statistic formulas. Many tables should be prepared, and taking the conclusion is also becoming students' difficulties. To overcome these barriers, basic of math or statistics, the usage of suitable teaching method and technique are needed very much. It may change students' behavior towards this material. Additionally, sharing to friends and students' perception change will affect their confident towards experimental statistics data calculation.

Second previous study comes from Murtonen and friends with thesis title are "Difficulties experienced by education and sociology students in quantitative methods courses."<sup>35</sup> This research studied the difficulties of student of education, psychology and social science experience in their quantitative research course at university. This research shows that students reported difficulties with superficial teaching, linking

<sup>&</sup>lt;sup>34</sup> Irdiyansyah, Iyan. *Students' Difficulties in Analyzing Experimental Statistic Data*. Faculty of Teacher Training and Educational Sciences. Pakuan University, 2009.

<sup>&</sup>lt;sup>35</sup> Murtonen, Mari. Learning of quantitative research methods - University students' views, motivation and difficulties in learning. (Finland: University of Turku, 2005)

theory with practice, unfamiliarity with and difficulty of concepts and content, constituting an integrated picture of the parts of scientific research in order to really understand it, and negative attitude toward these studies.

Besides, Dickson and friends conduct research with the title "Doing sensitive research: what challenges do qualitative researchers face?".<sup>36</sup> To explore these issues, face to face interviews were conducted with 30 qualitative health researchers. A grounded theory analysis revealed that researchers can face a number of challenges while undertaking qualitative research. These include issues relating to rapport development, use of researcher self-disclosure, listening to untold stories, feelings of guilt and vulnerability, leaving the research relationship and researcher exhaustion.

Other previous study comes from Mary-Beth Radon and friends, with thesis title "The Challenges of Teaching Qualitative Coding: Can a Learning Object Help?"<sup>37</sup> in this research, the researchers try to find out the solution to overcome difficulties in teaching qualitative coding, the result of this research showed that the learning object to be an effective medium for teaching coding which incorporates best practices of classroom instructors and integration of the learning object into their courses.

<sup>&</sup>lt;sup>36</sup> Dickson, Virginia. *Doing sensitive research: what challenges do qualitative researchers face?*. (La Trobe University, Australia 2007)

<sup>&</sup>lt;sup>37</sup> Raddon, Mary and friends. *The Challenges of Teaching Qualitative Coding: Can a Learning Object Help?*. International Journal of Teaching and Learning in Higher Education. 2009, Volume 21, Number 3.

Similarly, other research come from Wong with the title "Data Analysis in Qualitative Research: A Brief Guide to Using Nvivo"<sup>38</sup> Qualitative data is often subjective, rich, and consists of in-depth information normally presented in the form of words. Analyzing qualitative data entails reading a large amount of transcripts looking for similarities or differences, and subsequently finding themes and developing categories. Traditionally, researchers 'cut and paste' and use color pens to categorize data. This paper illustrates the ways in which NVivo can be used in the qualitative data analysis process. The basic features and primary tools of NVivo which assist qualitative researchers in managing and analyzing their data are described.

In addition, Basit also conduct research dealing with data analysis with the title "Manual or electronic? The role of coding in qualitative data analysis"<sup>39</sup> Data analysis is the most difficult and most crucial aspect of qualitative research. Coding is one of the significant steps taken during analysis to organize and make sense of textual data. This paper examines the use of manual and electronic methods to code data in two rather different projects in which the data were collected mainly by in-depth interviewing. The author looks at both the methods in the light of her own experience and concludes that the choice will be dependent on the size of

<sup>&</sup>lt;sup>38</sup> Wong, LP. *Data Analysis in Qualitative Research: A Brief Guide to Using Nvivo*. Malays Fam Physician. 2008; 3(1): 14–20.

<sup>&</sup>lt;sup>39</sup> Basit, Tehmina. *Manual or electronic? The role of coding in qualitative data analysis*. Educational Research. Volume 45, Issue 2, 2003

the project, the funds and time available, and the inclination and expertise of the researcher.

Moreover, Zamawe conduct the research with the title "The Implication of Using NVivo Software in Qualitative Data Analysis: Evidence-Based Reflections"<sup>40</sup> In this paper, the author reflects on his experience of interacting with one of the popular CAQDAS (NVivo) in order to provide evidence-based implications of using the software. The main function of CAQDAS is not to analyse data but rather to aid the analysis process, which the researcher must always remain in control of. In other words, researchers must equally know that no software can analyze qualitative data. CAQDAS are basically data management packages, which support the researcher during analysis.

In one hand, other come from Beuscher and Grando with the title "Challenges in Conducting Qualitative Research with Persons with Dementia"<sup>41</sup> This researcher shares personal experience of the challenges faced and the lessons learned while conducting a qualitative study of 15 persons with early stage Alzheimer's disease. The purpose of this paper is to discuss the issues concerning determination of capacity to consent to research, consent/assent, communication challenges, and trustworthiness of data when conducting a qualitative study of persons with dementia. Understanding communication challenges due to dementia is important to

<sup>&</sup>lt;sup>40</sup> Zamawe, F C. *The Implication of Using NVivo Software in Qualitative Data Analysis: Evidence-Based Reflections*. Malawi Medical Journal. 2015 Mar; 27(1): 13–15

<sup>&</sup>lt;sup>41</sup> Beuscher, Linda and Grando, Victoria T.. *Challenges in Conducting Qualitative Research with Persons with Dementia*. Res Gerontol Nurs. 2009 Jan; 2(1): 6–11.

develop effective communication strategies, such as simplifying the structure of questions, allowing ample time for participant's response, using reminiscence, and redirecting the dialogue.

In this research, the researcher makes a different research. The researchers try to describe students' difficulties in analyzing the qualitative data, causes and also solutions used by students to overcome the difficulty in analyzing qualitative data. It becomes problem for students of eight semester, on the other hand, they have already got material related to the research in previous semester but they still confuse or even don't know how to analyze qualitative data.

