

## **Chapter Three**

### **Research Methodology**

#### **3.0 Introduction**

This chapter presents and describes the methods the researcher uses for conducting this study. It describes the procedure of the research, population and subject of the study, tools adopted for data collection, the validity and reliability. The end of this chapter explains the difficulties the researcher faces while doing these procedures, particularly the questionnaire, distributing it, and collecting it back. Then the researcher closes the chapter with a brief summary.

First the researcher adopts content analysis method to fulfill the objectives of the study, because the content analysis methodology is the best for such researches. The researcher needs proofing to what extent the stories of the Holy Quran depict the elements of novel. The researcher knows that the Holy Quran is absolutely complete, but he wants to explain that fact scientifically through this study to the people, all people on earth as truths already included in the Noble Quran, but they need to be framed, and Allah the all-knowing is the only who knows the secrets and the occult intensions. Moreover the researcher uses the descriptive and analytical method thinking that the nature of the study needs

both of them. The first one is for analyzing the contents of the targeted stories to see the elements of novel through this tool for those who can be convinced by logical analysis, and the second one is to see how those elements can be examined by the statistical program SPSS, to those who are interested in figures rather than analytical proofs. That may be considered as supporting tool for the final results.

### **3.1 The methods adopted in this study**

The researcher adopts both the content analysis methodology and descriptive analytic one. My helpful supervisor prof. Dr, Mahmud Ali Ahmed and my teacher friend prof. Dr Ibrahim Mohamed Alfaki, advice me to adopt content analysis methodology in this research. I do agree with them and their fruitful guides, they are really convincing and they are in the top of my consideration, because really it is the best methodology for a research that needs analysis, elicitation and proofs, but the researcher thinks that the nature of study needs both of them, so the researcher takes the guides of the supervisor in his serious consideration , and adopt it first, then moreover the descriptive and analytical method is used for the addressed people who needs statistical figures .

*Content analysis according to Steve Stember ( 2001 ), in a peer-reviewed electronic journal, volume (7), number 17 June 2001G, he stated:*

*“Content analysis has been defined as a systematic, replicable technique for compressing many words of text into fewer content categories based on explicit rules of coding. (Berelson, 1952; GAO, 1996; Krippendorff, 1980; and Weber, 1990). Holsti (1969) offers a broad definition of content analysis as: "any technique for making inferences by objectively and systematically identifying specified characteristics of messages" (p. 14). Under Holsti's definition, the technique of content analysis is not restricted to the domain of textual analysis, but may be applied to other areas such as coding student drawings. (Wheelock, Haney, & Bebell, 2000), or coding of actions observed in videotaped studies. (Stigler, Gonzales, Kawanaka, Knoll, & Serrano, 1999). In order to allow for replication, however, the technique can only be applied to data that are durable in nature. Content analysis enables researchers to sift through large volumes of data with relative ease in a systematic fashion. (GAO, 1996). It can be a useful technique for allowing us to discover and describe the focus of individual, group, institutional, or social attention. (Weber, 1990:." It also allows inferences to be made which can then be corroborated using other methods of data collection". Krippendorff (1980) notes that "much content analysis research is motivated by the search for techniques to infer from symbolic data what would be either too costly, no longer possible, or too obtrusive by the use of other techniques" (p. 51)”.*

The researcher thinks that this methodology enables him to infer elicit and explain the elements of novel from the narrative

contents of the research's targeted stories of the Holy Quran. ( see chapter four)

The researcher analyzes the three stories, the story of Prophet Ibrahim, Yusuf and Musa, (peace be upon them all), as the targeted cores of this study. he states the elements of novel first, then analyzes the stories thoroughly, matching the elements with the contents of the three stories, i.e. he check the elements in the structural contents of the stories , explaining the elements in detail for each story. the researcher gives proofs, evidences and justifications showing how the three stories depict, frame and portray the elements of novel in their skeletal narratives.

On the other hand the researcher uses descriptive and analytical methodology, aiming at strengthening the finding and the results with the other neutral sample (population), who are in concern. Also some of who are interested in researches appreciate the descriptive analytical method thinking that it is neutrally preferable.

*According to Abu Hatab et al 1991G:112(cited in Othman, A:2016G :92): the descriptive analytic methodology is:*

*“The method deals with phenomenon or an event or a cause existing at present, from which the researcher can gather information to answer the questions of the research without the*

*interference of the researcher. It is considered as the simplest scientific approach*". According to this notion this approach is included for statistical neutrality, presenting two different findings and avoiding subjectivity.

### **3.2 The Population and Sampling of the study**

The population the of the study represents Sudanese academic persons, all of them are in concern. The sample of the study are all on work in the Sudanese universities. They are as follows

3.2. Associated professors who are specialist in literature particularly novels and stories

3.2.b. Assistant professors who teach literature.

3.2.c. Lecturers of long experiences more than ( 30 years ) of teaching literature.

3.2.d. profs who teach the sciences of the Holy Quran and Interpretation of the holy Quran.

3.2.e. Profs who their specialization is scientific miraculous of the Holy Quran.

All members of the sample of study are on work in the universities as follows:

University of Khartoum, in Khartoum state, Sudan University of Sciences and Technology in Khartoum state. Azhari University in Khartoum north, Khartoum state, Omdurman Islamic University in Khartoum State, University of the Holy Quran and Islamic sciences, in Khartoum State, University of Wade Elneel in Atbara In the River Nile State and University of Shendi in the River Nile State. The researcher distributes (50) copies of the study's questionnaire among the sample of the study. Those which are returned back are 43 done thoroughly. Seven copies were lost for logical reasons and the respondents who took them have deeply apologized. All of the sample are taken to carry out the study.

-B) The researcher also presents the methods of this study and the tools for collecting data of it. They give variety of opinions, but they are very pleased with topic and almost agree with the way of adopting these methodologies, according to the feedback, the researcher likes to enlarge the space of knowledge and strengthen the package of information by using two approaches for this study!.

### **3.3 The Study tools**

Questionnaire was used as supportive element for data collection. It was distributed initially to test if there were ambiguous questions. The opinions of the first distribution were

taken seriously and the questionnaire was reformed and fifty copies were redistributed to the population who were closely related to the topic requested. Some copies were lost because some respondents do not care about responding on questionnaires, and others were busy-minded. Forty three copies were collected back, then they were analyzed through the SPSS, statistical package for social researches.

### **3.4 validity and reliability of the tools**

Jobe, M (2000), he asserted that validity of the Quantitative research is:

*“Validity determine whether the research truly measures that which it was supposed to measure or how truthful the research tools are. In other words, does the research tool allow the researcher hammer the “ the bull’s eye of his research’s objectives? Researcher usually determines validity by asking a series of questions, and will often looks for the answers in the research of others.”*

The tools of this research are validated by panel of reviewers. 1 professor, 1 associated professor, four assistant professors from four universities in Khartoum. They are requested to give their neutral opinions according to the following criteria:

a. The clarity of items and tools.

- b. The arrangements of the items and their relevance to the research
- c. The language used in the tools.

Some modifications were suggested, the researcher takes the panel reviewers' suggestions in consideration and modifies the required modifications.

### **3.4.1 Apparent validity of the Questionnaire**

As he mentions researcher validates the questionnaire in it's elementary stage by six specialist doctors, all of them are on work in the universities in Khartoum. They checked all what they are requested to check, so as to ensure to what extent the elements of the questionnaire match the core of the study, how is the quality of each element of the questionnaire, and the tripartite gradation for the questionnaire.

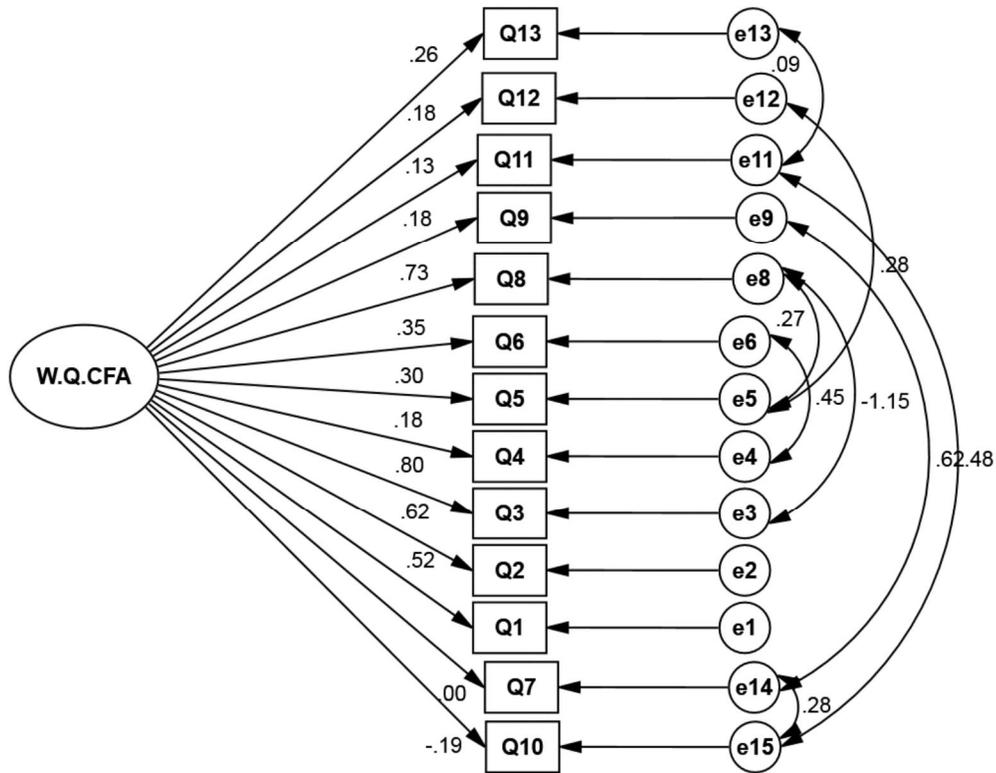
The researcher afterwards reforms the questionnaire in it's final version according to the guides of the (panel of reviewers), and the endorsement of the supervisor, then the questionnaire becomes valid for what is supposed to measure.

### **3.4.2 Skeletal validity for the research tool**

According to Mac Callum & Autin, (2000)The researcher uses Structural Equation Modeling (SEM). The researcher depends of

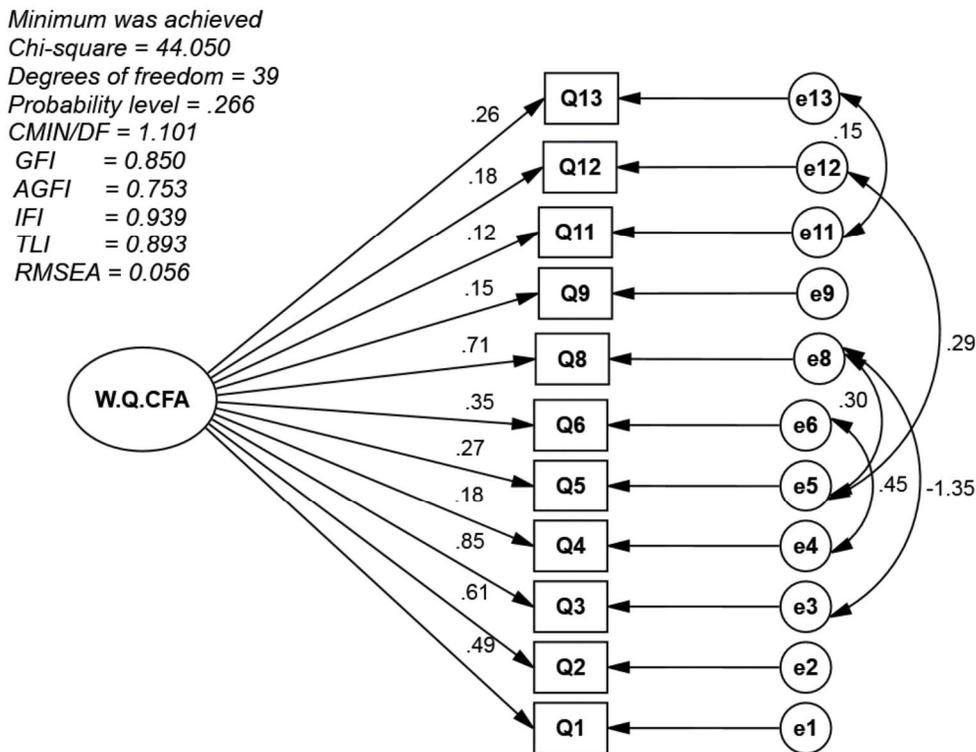


the so-called ( AMOS), analytic modeling of structure. In the light of the supposed matching of the validity between the contrasts of matrix of contents, or the interior variables in the analysis and the matrix supposed by the model, many positive indicator, i.e results come out. That statistically verifies the acceptance of the model. The following shapes includes the quality of matching between the matrix of contrast of contents, or the interior variables included in the analysis.



Shape No(3.1). predicative and elementary skeletal validity, for the questionnaire contents.

The shape is designed by the researcher, depending on the ( AMOS ), Analytic modeling of skeletal of the questionnaires. The ( AMOS ) shows that the “Q7 and Q10” have the weakest validity for Q( 7), and negative validity for Q ( 10 ). So the researcher according to the AMOS indices excludes the two Qs. Then consequently the researcher uses the ( AMOS ) it self after excluding the two questions. it shows the following validity:



Shape No (3.2) predicative and skeletal validity after excluding Qs (7,10).

The quality of model's indicators shows the existence of clear matching of the questionnaire to the variables of the study, after excluding the two Qs ( 7) and(10 ).

In the upper shape (2 ), chi- square= 44.50, with degree of freedom 39 and probability value = . 266, more than , .5. Also the chi-2= 1,101, it is less than standard value. GFI ( Goodness of fit ), ( 0. 850 ), it is near ( 90 ), that is the best value, also the (IF) 0.939, it is bigger than the standard value 0. 90. So far these statistical figures are considered as an excellent validity indicators. On the other hand the RSMA value is 0.58, it is between the range 0.5-0.8, and that is another excellent indicator of validity. According to these results, it is noticed that, there is a strong matching of the modeling for data. That indicates and ensures the validity of supposing that, the (11 Qs ) measure the structure of the three variables of this study, and quite correlated to the contents of this study.

### **3.5 Reliability of the questionnaire**

The questionnaire is distributed firstly to thirty specialist. They give positive responses, then the researcher distributes the rest of copies to other different specialist and related respondents. All that is done for being sure of if there is more modifications, the issue goes without more reformations. The coefficient correlation

formula is used to know the correlation. The reliability coefficient is calculated as follows:

Table (3.3 ) Alpha Coronbach indicators

Item number	Scale mean if item deleted	Scale variance if item deleted	Correlated item total correlation	Coronbach's Alfa if item deleted
<b>Q1</b>	<b>27.490</b>	<b>6.161</b>	<b>0.516</b>	<b>.614</b>
<b>Q2</b>	<b>27.670</b>	<b>6.272</b>	<b>0.302</b>	<b>.654</b>
<b>Q3</b>	<b>27.490</b>	<b>6.399</b>	<b>0.479</b>	<b>0.624</b>
<b>Q4</b>	<b>27.350</b>	<b>7.471</b>	<b>0.151</b>	<b>0.670</b>
<b>Q5</b>	<b>27.650</b>	<b>6.041</b>	<b>0.384</b>	<b>0.636</b>
<b>Q6</b>	<b>27.350</b>	<b>7.280</b>	<b>0.319</b>	<b>0.659</b>
<b>Q8</b>	<b>27.560</b>	<b>6.252</b>	<b>0.486</b>	<b>0.620</b>
<b>Q9</b>	<b>27.630</b>	<b>6.096</b>	<b>0.337</b>	<b>0.647</b>
<b>Q11</b>	<b>27.650</b>	<b>6.852</b>	<b>0.202</b>	<b>0.669</b>
<b>Q12</b>	<b>.470</b>	<b>7.255</b>	<b>0.148</b>	<b>0.672</b>
<b>Q13</b>	<b>.720</b>	<b>6.158</b>	<b>0.302</b>	<b>0.656</b>
<b>Alpha Coronbach Average</b>				<b>0.670</b>

The analytic indicators of reliability in table (3.3), show the indicators of Alpha Coronbach are between ( 0.614- 0. 672 ), with general mean of reliability of the research's tool ( 0.67 ). All indicators are quite reliable. According to what Jawdat Mahfuz (2009. P41) asserted: “ verily the stability of the research's tool is quite analytically reliable and highly trusted if the value of correlation coefficient of Alpha Coronbach ( 0.60 ), and the other way round is true, however the alpha coronbach of the study's tool gives general mean of reliability( 0.67 )correlation coefficient, higher than the standard mean of reliability. These results ensure the clarity and sobriety of the research's items. That enables the tool to give the same results if it is applied in another different environment. So according to what is previously presented, the researcher becomes confident with the validity and reliability of the research's tool.

### **3.6. Data collection tools and procedures**

#### **3.6.1 Questionnaire preparation and distribution**

The researcher prepares the Questionnaire for collecting the data of this study, validates it, and distributes it initially to specialist for modification if there was any ambiguous items or comments. The feed back of initial distribution is taken seriously in consideration, then the the final version of the modified

questionnaire was prepared. Secondly he distributes it among the sample, who are fifty Sudanese specialist of different degrees ( MA and PhD holders ) from Khartoum state and the River Nile State, Sudan. They are of different experiences range from ( 13 – 41 years ) of experience. The collected data is thereafter processed statistically by the SPSS ‘Statistical Package of Social Studies. All respondents are on work at the universities as shown in the following table:

University	Location
University of Khartoum.	Khartoum, Khartoum state.
Sudan University of science and technology.	Khartoum. Khartoum state.
Omdurman Islamic University.	Omdurman, Khartoum state.
Alazhari University	Khartoum north, Khartoum state.
University of Wade Elneel.	Atbara, River Nile State.
University of Shendi	Shendi, River Nile State.

Table 3.4: The Universities where the respondents of the Questionnaire work.

### 3.6.2 procedure of the study’s questionnaire

The questionnaire of this study states thirteen items of various statements, arranged into three sections:

3.6.2.1 Section one . Question one in section one, and all questions in section two measure variable one.

3.6.2.2 Question two in section one. Question ten, eleven and thirteen in section three measure variable two.

3.6.2.3 Question three in section one and twelve in section three measures variable three.

Three point scale are used ( Yes , No, Neutral) for section one, ( Can be clearly seen ,Can not be seen at all, Neutral ) for section two which concerns the elements of the novel, and (Agree, Disagree, Neutral ) for section three.

### **3.7 Statistical methods used in this study**

The following research methods are used for analyzing data:

#### **Part one**

\*employs Content analysis methodology

#### **For part two**

Employs the descriptive analytical method. These statistical items are used:

\*charts.

\*Percentage.

\* Alpha equation for calculating the reliability coefficient.

\*chi-square test for measuring the significance between answers.

\*SPSS statistical software.

### **3.8 Barriers face the researcher while conducting the methodology**

The researcher faces many barriers. While designing the questionnaire, the researcher feels that usually respondents either busy, or not interested in responding questionnaires. The options of the research must be a few options, because respondents are often look at this request as insignificant request. In distribution stage the researcher finds those who absolutely refuse, others take their copies, but when you come back to return the finished copies, they simply neglect or forget your request. Some of them never return his copy till you keep standing on his head! To some extent there is an economical barrier in printing and the cost of (A4) papers are high nowadays, the price of the package is approximately ( 80- 100 pounds). Also in analyzing of data through the SPSS, the researcher as statistician may miscode the options of the questions while inserting the data, that disturbs the SPSS system. If that happens, he shall recode and insert the data items from the begging, that consumes much time. So far the researcher spends a



lot of time to complete and finish this methodology because of these barriers!.

### **3.9 Summary of this chapter**

This chapter describes the research methodology. it describes the methods adopted for this study. The chapter also gives information about the population and sample of the study. This chapter also focuses on the statistical procedures adopted for the study. Then finally the barriers and obstacles faced the researcher while conducting the methodology are explained in details.