

## HOW TO WRITE QUALITATIVE RESEARCH

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**ABSTRACT:** *Scientific research is aimed at providing a solution(s) to a certain problem based on observable evidence. Generally, there are novel approaches that a research design can be formulated. However, research approaches have been broadly categorized into either qualitative research or quantitative research. Each of these approaches attempts to answer a particular question and may address issues which are related or unrelated. Initially, qualitative research was widely used but in recent past, quantitative research has gained significant attention considering its robustness. Mostly, qualitative research is exploratory and hence generalization cannot be made. The current study is aimed at exploring the tenets of qualitative research and how quality qualitative papers can be produced. It provides a chronological order of qualitative research from abstract to a conclusion and what is required in each step. The study uses cross-examination of kinds of literature that explored a qualitative approach. The results of this study will have both the education as well as policy implication.*

**KEYWORDS:** qualitative, research, scientific research, title, abstract

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## INTRODUCTION

### Title

The title is the most important aspect of the entire paper. It significantly influences whether the audience will be interested in reading or not. Generally, a title is more sensitive and any errors can result in plagiarism. Nonetheless, [1] observed that title need to be unique in any way but with no jargons. It has been widely accepted that titles should be concise and to the point such that it can be easily grasped. In another study, [2] conducted research that examines the relationship between the nature of title and probability of viewing and citing the articles. In this study, [2] analyzed titles from 423 articles published between 2008 and 2011. Arguably, titles were classified based on the content. Results demonstrated that articles whose titles were precise and describe results were highly viewed and also cited than long titled articles [2]. On the other hand, citations rates have a significant influence on the impact of the article as well as the credibility of the researcher and his/her contribution to the world of scientific research. Arguably, titles can be used to increase the visibility of the work and this, in turn, increases the acceptance of the work for publication in a highly reputable journal.

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**Abstract**

The abstract is unanimous in all scientific research methods and it gives the reader a precise picture of the entire research. In qualitative research, there are some elements that must be considered when developing abstract. According to [3], the abstract should reflect the entire paper and the number of words can range from a minimum of 150 words and a maximum of 250 words. These words are not any other words but those that carry weight. Other important elements within the abstract section include but not limited to the purpose of the study, research design, the method used to collect data as well as the data analytical approach and also the results [3]. Only the final findings and not the entire script of results and it should be as clear as possible. Other than results, it is important to incorporate the implication of the results. The implication here implies the influence of the results and can range from socioeconomic to political implication such as policy. Once the entire abstract has been created, keywords are provided below the last line [4]. The keywords need to be italicized and contain what the third party can use to research about the same topic.

**Introduction**

The introduction is normally developed as part of the preamble section and may not be labeled to appear as a subsection. The [5]'s qualitative research handbook observed that introduction can include not more than four paragraphs and it describes the background of the research and the topical concept. For some researchers, the introduction is normally presented as the background of study [4]. A deep analysis into the introduction can note that it encompasses the expansion of the abstract described above as well as a concrete summation of the reviewed kinds of literature. Significantly, it can be thought in form of thumbnail sketch which precedes literature review. Based on previous research, it has been argued that qualitative research attempts to answer questions that seek "WHY" and "HOW" more than what, where, and when in a social context which is prevalent in the quantitative study [1]. Since qualitative approach gives the researcher an opportunity to collect in-depth information regarding experiments, human behaviors and attitudes among others, such intentions are expected in the introduction section. Thus, in the preamble section, the reader needs to be prepared for the reason why the researcher opted to conduct a study.

In some studies, the authors pointed out that dedicating some paragraphs to some statistics briefing can be quite fascinating. In introduction part, the author should display that he/she is knowledgeable about the existing knowledge regarding the topic and this can be shown through consideration of statistics and also highlighting a state of world affairs in relation to research [4, 5]. The facts and statistics from a recognized institution such as CDC, UN and Councils can assist in substantiating the need to conduct research in a particular area. Once this has been done, the researcher dedicates a section of the total paragraphs to focusing more on specific contexts. In this way, the audience is prepared to accept and understand the problem statement. For instance, one can discuss the general history cybersecurity and loss of bio-data. The process steps onto more specific context such as an upsurge in cybersecurity threat.

**Statement of problem**

In totality, problem statement should state the reason why the issue under research is of concern and that previous studies have not addressed it adequately. In real terms, problem statement help to briefly reveal the research gaps that exist in the current literature [5]. The issue can be covered in a single problem to avoid clashing with the introduction part and also eliminate elements of repetition. Accordingly, to [6], clinical studies that use qualitative research include a description of the flaws in previous findings that need to be addressed. For instance, focusing on the cybersecurity case, the problem can include elements of an upsurge in data breaches leading to a socioeconomic and political loss. It is important to note that the reader is already

prepared by the preamble section.

### **Purpose of the Study**

The research purpose is important as it determines the feasibility of the study. In this section, the researcher attempts to provide what is to be done to provide a solution to the existing gaps. Significantly, in [1] study, purpose in a qualitative study is more obvious phenomena in the literature review section [1]. Some studies also argue that there is great synergism between the objectives, aims, and purpose of study in scientific research. In this case, the purpose can be; to examine the prevalence of cybersecurity in e-Commerce which leads to prevention of data breach.

### **The significance of the Study**

The results of the qualitative study are aimed at producing some sort of benefits which can be breaching the gap or providing a solution to the certain socioeconomic problem [4]. In showing the significance of the study, the author is required to demonstrate how the results could benefit the audience. The audience can be individuals, groups, companies and also governments among other institutions.

## **LITERATURE REVIEW**

Essentially literature review entails the systematic identification, retrieval, and examination of the documents and past studies containing details which are related to the current study's research problem [7]. Also, the term may imply a written document of the report that has reviewed documents. The documents that can be analyzed in literature review includes but not limited to published articles, report abstracts, reviews, research dissertations, online articles and monographs among others [6]. On the same note, Denzin and Lincoln argued that the literature review encompasses the examination of previous works related to the topic of study [1]. It starts with preamble but not as in the introduction section. A literature review is an exploratory in nature, and it gives the researcher the opportunity to expand on the scope of the study. In most scientific research, whether qualitative or quantitative, a literature review is almost similar. Generally, a literature review has novel purposes thus it is worth in terms of effort and time spent in analyzing them. Literature review serves several purposes like qualifying the topic chosen; it shows other people's opinion on the same context and eliminates chances of duplicating research among others.

The discussion by [7] explored a detailed requirement of the literature review in qualitative research. In the article, authors argued that it requires the documentation of the problem exists, the way the problem manifested, parties and institutions affected, interested agencies and also historical background of the problem [7]. Similarly, [5] noted that the analysis of the problem is based on the results of the reviewed works of literature. Typically, theories can be utilized in framing the research based on subject area, research method and also used in the determination of the degree of success. In addition, a literature review can reinforce justification of the research in the introduction section. Nonetheless, the most distinct factor noted in novel research is that previous authors acknowledged that pieces of literature to be included need to be up to date [1, 5, 7]. This means that the literature should not be old because recent studies present the new dimension of the current world. At the same time, the selection of novel literature should be conducted in a more careful manner.

### **Objectives**

Once the works of literature and problem have been analyzed, the objectives are identified. There should be

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a close relationship between the problem, topic, and objectives [5]. This implies that after analyzing the problem, definitely, the objectives come out automatically. Ideally, each study has one general objective that explains the general contribution of the problem and one or more specific objectives that states how the general objectives will be arrived at. Objectives should be so clear and free from ambiguity. Also, objectives have certain “start key” such as; to determine....; to evaluate....; etc.

### **Hypothesis**

Hypothesis attempts to provide a prediction of the expected outcome of one or more of objectives [5]. It is important in the initial stage to specify the hypothesis based on the assumed relationships of the variables in order to clarify the position as well as the perceived knowledge of the author(s). In case statistical tests need to be done, hypothesis formulation is important when developing a research design. Also, it can be extracted from the experience, theory or knowledge of contextual elements. In a qualitative study, there is no formulation of the inductive hypothesis.

### **Limitations**

In any research, no matter how clear the objectives and rationale are, weakness and flaws are inevitable. In a real insight, to provide a good overview of the research area, the researcher is required to provide the aspects that the study may not cover [5]. The limitation can be in terms of data collection, the scope of the topic, time and also resources among others. However, it is important to note that the limitations should not be extreme to the point that generalization and conclusion cannot be made.

## **METHODOLOGY**

For the qualitative approach, the overall methodology is included leading to a conclusion based on the results of the objectives. This section describes how objectives earlier stated can be achieved. Elsevier has provided step by step methodology requirement in qualitative papers. The journal argued that the methodology needs to carry basic elements such as study design, sample recruitment approach and sample size as well as analytical strategy [8]. Additionally, setting, research questions and also the description of what can be done are equally important.

### **Study design**

This is the primary steps in methodology, and it outlines how the research is going to be conducted. There are various factors that authors have noted that need to be addressed in creating the study design in a qualitative approach. First, a researcher should provide a rationale as to why the exploratory approach was chosen [3]. Secondly, the qualitative design is specified. There are various methods in this case and to note a few include phenomenology, grounded theory, and thematic analysis among others [5]. Thus, selection of these depends on the purpose of the study and also desired results.

### **Sample selection**

Unlike quantitative research that requires standardized sampling procedures as well as the random selection, in qualitative approach subject selection is deliberately purposeful [9]. The sampled participants should have the capacity to inform important elements and facets associated with the phenomenon under study [9]. For instance, research examining cybersecurity intervention, the basic representative participants may be considered in terms of roles, perspective (approving body), level of experience and also the diversity.

### Sample size

Once sample selection has been identified, the sample size is the next consideration. Generally, their sample size is not predetermined in a qualitative approach. According to [9], the participant sample size is based on the scope of the research, elements under study and the phenomenon in the research. This implies that the size of the sample can be adequate in case additional interviews and occasionally focus group is not necessary for the identification of the new concepts. To determine the data saturation point, in the analysis, there is repetitive data collection [9]. Initially, a collection of both positive and negative response is significant as a comparison can be made. Where the respondents side with one of the options given, the researcher is allowed to recruit more participants as a different opinion can be extracted.

### Data analysis

In this section, the researcher needs to detail how he/she analyzed the data, explain the software used (if any), coding procedures and also a validation of the results [5]. In essence, validation allows reproducibility of the results. Generally, qualitative analysis rarely includes statistical analysis. However, the qualitative approach purpose to interpret data as well as the resulting theme [9]. Essentially, interpretation of data and themes leads to better understanding of the phenomena [5]. On the other hand, interpretive analysis can be used for better understanding of the responses and may include frequency of response and also identification of the most cited theme.

### Quality and Rigor

The study by [9] quoted that in qualitative research, authenticity trustworthiness promotes rigor and quality of the study. Therefore, it is important to demonstrate the reliability and also the validity of the method used and also the results anticipated. With the assurance of rigor, it implies that the research can be reproduced by other researchers.

### Discussion of Results

Once the results have been obtained from the method selected above, it has to be analyzed and discussed. But, the discussion should be made in line and also in order of objectives to avoid confusion [5]. This implies the interpretation of the results obtained. However, during the discussion, the results can only be considered valid upon using support evidence from the past and related studies [10]. In most cases, consistency is desirable, but little diversion is also permitted but not extreme ones. This is the section that reveals the researcher's knowledge in the area of study and also reflects the contribution of new information into the already existing pool of research. In some instances, the researcher can also break the entire discussion based on themes. Similar contexts can be discussed under one subheading and supported by the previous studies. Throughout the study, all these must be cited to avoid plagiarism.

### CONCLUSION

Conclusion involves restating the thesis statement earlier made before research was conducted and then proceeding to discuss the most significant data. In [1] study, it was acknowledged that it is of the essence to reflect on the most important evidence that emerged from the study and then make an inference of these new pieces of evidence [1]. Arguably, this can be considered the climax of the study and need to say more than obvious. It demonstrates the ability of the researcher to compress long and comprehensive evidences into few sentences but still can make meaning. Afterward, a recommendation can be made following the results followed by the reference that shows the appreciation of other people's work to avoid plagiarism.

### Other Considerations

The recommendation can be made for further research where the current study failed to explore of observed different results. In addition, plagiarism is an important element to consider in all researches regardless of research approach; all the sources used must be cited properly in both in text and also full detail supplied in the reference or bibliography section. This is the only way that shows researchers appreciation of other people's contribution and also honesty. The final draft also may require proofreading for errors related to grammar and other English writing rules.

#### A. Sizing of Graphics

Most charts, graphs, and tables are one column wide (3.5 inches / 88 millimeters / 21 picas) or page wide (7.16 inches / 181 millimeters / 43 picas). The maximum depth a graphic can be is 8.5 inches (216 millimeters / 54 picas). When choosing the depth of a graphic, please allow space for a caption. Figures can be sized between column and page widths if the author chooses, however it is recommended that figures are not sized less than column width unless when necessary.

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