
**The Roles and Challenges of Objectivity in Research: An Empirical Survey of the
academic staff and post graduate students in Public Tertiary Institutions in Akwa Ibom
State**

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ABSTRACT

Descriptive survey design was adopted for the study. The study was conducted in Akwa Ibom State using the public tertiary institutions in the state (University of Uyo, Akwa Ibom State University, Akwa Ibom State Polytechnic, Akwa Ibom State College of Education Afaha Nsit, and Akwa Ibom State College of Science and Technology). The population of the study comprised post graduate students in the two universities and academic staff from the five institutions. Simple random sampling technique was used to select 60 post graduate students from University of Uyo, 30 post graduate students from Akwa Ibom State University, and 50 academic staff from each of the 5 institutions, giving a total of 340 respondents for the study. The Instrument titled "THE ROLES AND CHALLENGES OF OBJECTIVITY IN RESEARCH QUESTIONNAIRE (RCORQ)" was used. Face validation of the instrument was carried out by research experts in business administration while Cronbach Alpha technique was used to determine the level of reliability of the instrument. The reliability coefficient obtained was 0.86 which was proved high enough to justify the use of the instrument. The researcher subjected the data generated for this study to percentage analysis which was used to answer the research questions and Pearson Product Moment Correlation Analysis for testing the hypothesis. The test for significance was done at 0.05 alpha levels. The study revealed that there is high need of the application of objectivity in research. The result also proved that the roles of objectivity in research were numerous including elimination of bias and high dependability of research results. Also, the challenges of objectivity in research were observed to be numerous too including personal prejudices and biases and value Judgment. It was concluded that most researches carried out are without optimum level of objectivity and as a result of that, the findings are not dependable for solution of the prevalent problems and challenges. Also, there is significant relationship between objectivity in research and dependability of the results. One of the recommendations was that researchers should prioritize objectivity and minimize bias in research to ensure dependability of the results obtained.

**KEYWORDS: Objectivity in Research, Academic Staff, Post Graduate Students,
Akwa Ibom State**

Introduction

Man is surrounded with various challenges and needs. It is quite obvious that God has given man the power and knowledge to subject every challenge that comes his way. The quest to surmount these challenges and create more knowledge to complement the existing store of knowledge makes man consistent and frequent researchers. Even in our educational sector just as applicable in other sectors research is commonly carried out, it is quite unfortunate that many researchers are yet to employ objectivity in research. It is important to know here that objectivity just like any other elements of research such as (intellectuality, systematicity and purposefulness), needs to be fully employed in research. According to Akpan (2020), objectivity is one of the most cherished ideals of the educational research community. In fact, it is so important that if our work is accused of being subjective, its status as a source of knowledge sinks slowly into the horizon like a setting sun.

According to Ibanga (1992), research is a systematic, objective and accurate search for the solution of a well-defined problem; hence, objectivity is prominently showcased due to its importance. Objective research is a research that is unbiased or impartial (Mouly in Samuel, 2016). Thus, an objective researcher (or project, report or study) is like a judge who attempts to give a fair hearing to both sides of a legal dispute. The objective judge listens to both sides of a dispute without giving undue consideration to either. Thus, we think of objective research as value-free, reliable or trustworthy, and factual or real, objective research produces a dependable solution. Objective theories (hypotheses or concepts) are theories that correctly depict facts or real phenomena. In objective research, there is absence of fiction, propaganda, speculation, and fraud, rather, truth is the case. All of these conceptions of objective research capture some important aspects of our use of this phrase; there are variety of ways of understanding objectivity (Roger, Caroline, and Tanju 2018). There is great need for scientific research with high level of objectivity if any issue is to be put to an end.

According to Mouly in Samuel (2016), a research is not supposed to be influenced by personal feelings, opinions, interests, expectations or biases. Objectivity in research calls for open-mindedness. Researchers need to prioritize objectivity, minimizing biases. This critical component of high-quality, trustworthy research is required to generate high confidence that the estimates of effect reflect the true situation for wise decisions.

Statement of the Problem

It is obvious that the roles of objectivity in research cannot be over emphasized. It is a fact that objective research produces an unbiased result with high level of dependability, promoting swift development. But come to think of it, how many researchers appreciate these facts? How many freely accepts the results of the research the way it is? How many do not present the findings of the research the way he/she wants it to be or dance towards the popular trend and direction? The problem of objectivity is one of knowing reality. The folkways, mores and social usages usually come to be accepted as naturally valid and thus appear to provide complete and adequate schemes of living and thinking for members. Therefore, for a researcher to detach himself from others is often an extremely difficult task, and he runs the risk of unconsciously using them to prejudge the situations he studies. Most times, statisticians engage themselves in long time of argument and disengagement with their clients who demand the result of his/her studies to be otherwise. My regular advice to my clients is that the manipulated result proves absence of research objectivity and that it proves that there was no need engaging oneself in the research in the first place if you must decide on the outcome of your research outside objectivity. The world is currently faced with sequence of problems, since research as a process aims at finding out solution to problems; objectivity in scientific research is of immense relevance if any societal problem is to be put

to an end. The aforementioned problems lay the foundation to which this study is built as it is in a way making efforts to find out the roles and challenges of objectivity in research.

Purpose of the Study

The main purpose of the study was to assess the roles and challenges of objectivity in research. Specifically, the study sought to:

1. Find out the extent to which application of objectivity is needed in research among academic staff and post graduate students in tertiary institutions in Akwa Ibom State.
2. Examine the roles of objectivity in research as perceived by academic staff and post graduate students in tertiary institutions in Akwa Ibom State.
3. Determine the challenges of objectivity in research as perceived by academic staff and post graduate students in tertiary institutions in Akwa Ibom State.
4. Examine the relationship between objectivity in research and dependability of the results among academic staff and post graduate students in tertiary institutions in Akwa Ibom State.

Research Questions

1. What is the extent to which application of objectivity is needed in research among academic staff and post graduate students in tertiary institutions in Akwa Ibom State?
2. What are the roles of objectivity in research as perceived by academic staff and post graduate students in tertiary institutions in Akwa Ibom State?
3. What are the challenges of objectivity in research as perceived by academic staff and post graduate students in tertiary institutions in Akwa Ibom State?
4. What is the relationship between objectivity in research and dependability of the results among academic staff and post graduate students in tertiary institutions in Akwa Ibom State?

Hypothesis

H₀₁: There is no significant relationship between objectivity in research and dependability of the results.

Literature Review

Concept of Research

Research is defined as human activity based on intellectual application in the investigation of matter. Simply put, it is a careful consideration of study regarding a particular concern or problem using scientific methods. As stated by Slesinger & Stephenson, (2003), the primary purpose for applied research is discovering, interpreting, and the development of methods and systems for the advancement of human knowledge on a wide variety of scientific matters of our world and the universe. It is regarded as systematic efforts to gain new knowledge. Research involves inductive and deductive methods (Wimmer, & Dominick, 2011). According to Wimmer, & Dominick (2011), inductive research methods are used to analyze an observed event. Deductive methods are used to verify the observed event. Inductive approaches are associated with qualitative research and deductive methods are more commonly associated with quantitative research. Definition of Research comprises defining

and redefining problems, formulating hypothesis or suggested solutions; collecting, organizing and evaluating data; making deductions and reaching conclusions and at last carefully testing the conclusions to determine whether they fit the formulating hypothesis.

Concept of Objectivity in Research

In its purest sense, the idea of objectivity assumes that a truth or independent reality exists outside of any investigation or observation. The researcher's task in this model is to uncover this reality without contaminating it in any way. In research, a realistic aim is for the researcher to remain impartial to the outcome of the research to acknowledge their own preconceptions and to operate in an unbiased and value-free way as possible. According to Roger, Caroline, and Tanju (2018), objectivity in social research is the principle drawn from positivism that, as far as is possible, findings depend on the nature of what was studied rather than on the personality, beliefs and values of the researcher.

According to Elliot in Akhtar (2020), objectivity means, being fair and open to all sides of the argument. To be objective or to have an objective view is to see things the way they are. In adopting objectivity in research, Resnik, (2001), averred that 'objective research' has several different meanings in the social sciences and humanities:

- i. Objective research as unbiased or impartial.
- ii. Objective research as value-free i.e., unaffected by moral, economic, social, political, or religious values.
- iii. Objective research as reliable or trustworthy.
- iv. Objective research as factual or real.

Need for Adoption of Objectivity in Research

In undergoing research, flawed methodology and suboptimal reporting of research findings could lead to biased estimates of effect (over-estimates or under-estimates). This could lead to decisions that are not optimal based on biased estimates which could potentially harm the society at large. According to Guyatt & Busse (2020a), current research is expected to balance feasibility and efficiency against methodological rigor and carefully address methodology gaps as much as possible. To support universal decision-making and minimize harm, the research community should focus on conducting and publishing trust-worthy evidence.

According to Purdy (2020), scientists strive to maintain objectivity at every step in a study, from initial conception to evaluation of results. Experts on research integrity agree that researchers should never begin with the idea that they know exactly what they will find. The purpose of research is to arrive at answers that reflect actual findings. Supporting this fact Akpan (2020) stated emphatically that:

- a. Findings may support initial hypotheses, but they may also turn a researcher in a new direction.
- b. In the initial stages of research, when hypotheses are being formed and research questions are being stated, it is essential that language be as unbiased as possible so as not to distort results.
- c. The size and makeup of samples in a study are also important.

d. Randomization and other methods are used to make research subjects as representative of the general population as possible.

One of the most effective methods for maintaining objectivity in data collection is to set up blind research projects. Single-blind studies eliminate biases among research subjects by keeping them unaware of whether they are members of a control group or the test group. A double-blind study attempts to remove bias among researchers as well and is considered the gold standard for much research (Krimsky, 2013). According to him, blind trials are not always possible and require significant time and investment. Because of major problems with conflicts of interest in research, significant interest has been directed toward the promotion of objectivity. Various academic, national, and international organizations have formed to uphold good research practices. Many at times researches remain devoted to studying the causes and effects of objectivity, subjectivity, and bias. It is believed that better understanding of the issues and their implications, scientists can better pursue the truth for a better result and more dependable findings.

The Roles and Reality of Objectivity in Research

The roles of objectivity in research cannot be exhausted. The current innovations in science, technology, education, medicine, agriculture, ICT, engineering just to mention but a few are the products of objectivity in research. That is why there are so much advocates on the need for objectivity when conducting a research with expectation of dependability of the result.

Nunn et. al. (2018) identifies four key roles assigned to ‘objectivity’ as: *faithfulness to facts, value-freedom, dependability of research results* and *freedom from bias*. According to Reiss and Sprenger (2016), trust, ‘consensus’ or agreement among specialists is also evoked as a supporting characteristic. According to them, one thing, apparently, is that we have taken pains to try to diminish or eliminate bias. To be objective or to do an objective study is to be or do something that is not primarily about ourselves, but about the world itself. Objective means in some contexts, being fair, open to all side of the argument. In other contexts, objectivity refers to a fair method or procedure through which we acquire information; an objective test is an example of such a procedure. In common discourse, to be objective or to have an objective view is to see things the way they are. When we conceptualize objectivity, we ineluctably imply its opposite subjectivity and between the two there is no doubt about which one comes out on top. We want to be objective in our views, objective in our methods, and above all, to have objective knowledge.

Many accounts of the role of objectivity in science have focused on the need for scientists to recognize and transcend personal, social or cultural values, which might influence their pursuit of knowledge and its outcomes: Science is able to serve as an objective source of unbiased information; precisely because either the individual scientist is able – qua scientist – to transcend all social, moral, and political values, or more plausibly, the institution of science is able to insulate itself from social values that would make it bias and render it subjective (Tsou et al., 2015). Attempts to present value-freedom as an attainable ideal serve to support a view of impartial science that is *universally valid*, holding true for anyone, anywhere (Longino, 2004). The ideal of value freedom is also bound up with the ideal of universality: what counts as a scientific truth or scientifically supported claim for one person or community should count as such for any other, no matter how different their cultural values may be (Longino, 2004).

Challenges of Objectivity in Research

There are various challenges of objectivity in research. Some of which are data collection and analysis sessions. For instance, once data is collected, researchers face additional objectivity challenges in analyzing and reporting their findings. Possible issues include failure to record data correctly, errors in statistical analysis, and cultural biases in interpretation. Objectivity may also be lost if a researcher opts for a method of analysis that does not reflect what was actually learned. Replication of research and peer review of material submitted for publications are two common methods used to encourage the highest possible degree of objectivity. It is sometimes, very difficult to achieve objectivity in research. This difficulty, according to Akhtar (2020) arises out of the adverse influences of (a) personal prejudices and bias, (b) value judgment, (c) ethical dilemma and (d) complexity of social phenomena.

Personal prejudices and biases: Prejudices and biases are like fantasies to believe what is comforting to believe. It makes to believe something without considering evidence. The subjective bias in research is as a result of adverse influences of personal motives, customs and social situations. This does not promote fairness in the conduct of the research and it is one of the causes of failure in research and underdevelopment of our society. The sources of bias are selfishness, over-ambition, friendship, relationship, caste and community, class, religion, location, nationalism, language, political affinity, profession, opportunism, sexual bias, business, careerism, group bias, temperament bias, power bias, personal bias, pessimism, optimism, fanaticism, and militancy. Guarding against such biases becomes a matter of perpetual vigilance for a true researcher and there is strong need for replication and peer review of each research work in order to checkmate the idiosyncratic or personal bias.

Value Judgment: Value related problem arises from the social context in which research occurs. A researcher's attitudes towards socio-economic issues are influenced by his values. The objective observer must strive at self-elimination in his judgments and provide an argument which is as true for each individual mind as his own. He has to overcome his subjective judgment. But all persons living in a society are bound to have a set of values.

Ethical dilemma: Research relation with other aspect of research creates ethical problems. E.g., relation with sponsors, relation with source data, and relation with research subject. All members of the society have different values; social researcher will unconsciously be influenced by their values. Some scientists fail to achieve objectivity because the respondents as human beings have certain human problems. e.g. refusal of respondent, improper understanding, reluctance etc.,. All these problems cause biases and invalidate the research findings and conclusions.

Complexity of social phenomena: That people belonging to different social positions or living at different periods of time will most likely have their social theories tainted by distorting effects unparalleled in the physical sciences and, therefore, not difficult to visualize.

In his note Rukmini, (2020) also considers precisely the influencing factors which may challenge objectivity and prevent the researcher from taking full account of the evidence at their disposal, thereby subjecting research to biases. These influences may be summed up as adverse influences of:

Personal motives: We cannot help admitting that one's motives do sometimes affect beliefs adversely; at times leading him to adopt beliefs without considering evidence at all or to make a defective estimate of the evidence. Equally, personal motives affect the decision of the researcher on the result of the research. Most researchers prioritise their personal motives

to the detriment of the result and findings of the researcher and the general society at large. When our motives predispose us in this way to believe something that is comforting without good evidence, we are, of course, rarely aware that this is so. At any time, there are many habits of thought which simply because they are generally accepted, are not easy to detect.

Custom/Beliefs: There is a strong advocate for the need to overcome the influence of custom and belief when conducting a research. Hence Rukmini, (2020) state that, an inquirer should not let his beliefs be influenced by the above factors. This advocacy is very crucial due to high rate of custom/beliefs influence on research findings with little or no lament of objectivity. Objectivity by itself will not, however, ensure that an inquirer will come to hold rational beliefs, but failure in objectivity will certainly prevent him from holding such beliefs.

Social Situation of which the social scientists himself is a part. There are cases, however, where an effect adversely affects objectivity arising in the form of an intellectual error in placing undue weightage on evidence at hand. This evidence in turn varies with the person's social situation, i.e., his place in the social structure.

These influences have some effect on the beliefs of the social inquirers. Nevertheless, the importance of objectivity as a most cherished but not sole value is recognized by researchers of various fields. Consequently, we can conclude that objectivity must play a significant role in research but it shall not be made a lone standard in judging research studies of researchers.

Method

Descriptive survey design was adopted for the study. The study was conducted in Akwa Ibom State using the five public tertiary institutions in the state (University of Uyo, Akwa Ibom State University, Akwa Ibom State Polytechnic, Akwa Ibom State College of Education Afaha Nsit, and Akwa Ibom State College of Science and Technology). The population of the study comprised academic staff and post graduate students in the two universities as well as academic staff from the five institutions. Simple random sampling technique was used to select 60 post graduate students from University of Uyo, 30 post graduate students from Akwa Ibom State University, and 50 academic staff from each of the 5 institutions, giving a total of 340 respondents used for the study. The Instrument titled "The Roles and Challenges of Objectivity Questionnaire (RCOQ)" was used. Face validation of the instrument was carried out. Cronbach Alpha technique was used to determine the level of reliability of the instrument. The reliability coefficient obtained was 0.86 and this was high enough to justify the use of the instrument. The researcher subjected the data generated for this study to percentage analysis which was used to answer the research questions while Pearson Product Moment Correlation Analysis was used to test the hypothesis. The test for significance was done at 0.05 alpha levels.

Results and Discussions

Research question one: The research question sought to find out the extent to which application of objectivity is needed in research among academic staff and post graduate students in tertiary institutions in Akwa Ibom State. In order to answer the research question, percentage analysis was performed on the data (see table 1).

Table 1: Percentage analysis of the extent to which application of objectivity is needed in research among academic staff and post graduate students in tertiary institutions in Akwa Ibom State

EXTENTS	FREQUENCY	PERCENTAGE
VERY HIGH EXTENT	278	81.76**
HIGH EXTENT	62	18.24*
TOTAL	340	100%

** The highest percentage frequency

* The least percentage frequency

SOURCE: Field survey

The above table 1 presents the percentage analysis of the extent to which application of objectivity is needed in research among academic staff and post graduate students in tertiary institutions in Akwa Ibom State. From the result of the data analysis, it was observed that the highest percentage (81.76%) of the respondents affirmed that the extent to which application of objectivity is needed in research is very high, while the least percentage of the respondents (18.24%) affirmed that the extent of the need of application of objectivity in research among academic staff and post graduate students in Akwa Ibom State is high.

Research question two: The research question sought to find out the roles of objectivity in research as perceived by academic staff and post graduate students in tertiary institutions in Akwa Ibom State. In order to answer the research question, percentage analysis was performed on the data (see table 2).

Table 2: Percentage analysis of the roles of objectivity in research as perceived by academic staff and post graduate students in tertiary institutions in Akwa Ibom State

ROLES	FREQUENCY	PERCENTAGE
Elimination of bias	105	30.88**
Universally valid	67	19.71*
Faithfulness to facts	90	26.47
High dependability of research results	78	22.94
TOTAL	340	100%

** The highest percentage frequency

* The least percentage frequency

SOURCE: Field survey

The above table 2 presents the percentage analysis of the roles of objectivity in research as perceived by academic staff and post graduate students in tertiary institutions in Akwa Ibom State. From the result of the data analysis, it was observed that “elimination of bias” (30.88%) was rated the highest while “universally valid” (19.71%) was rated the least of the roles of objectivity in research as perceived by academic staff and post graduate students in tertiary institutions in Akwa Ibom State.

Research question three

The research question sought to find out the challenges of objectivity in research as perceived by academic staff and post graduate students in tertiary institutions in Akwa Ibom State. In order to answer the research question, percentage analysis was performed on the data (see table 3).

Table 3: Percentage analysis of the challenges of objectivity in research as perceived by academic staff and post graduate students in tertiary institutions in Akwa Ibom State

CHALLENGES	FREQUENCY	PERCENTAGE
Personal prejudices and biases	132	38.82**
Value Judgment	93	27.35
Complexity of social phenomena	70	20.59
Ethical dilemma	45	13.24*
TOTAL	340	100%

** The highest percentage frequency

* The least percentage frequency

SOURCE: Field survey

The above table 3 presents the percentage analysis of the challenges of objectivity in research as perceived by academic staff and post graduate students in tertiary institutions in Akwa Ibom State. From the result of the data analysis, it was observed that “personal prejudices and biases” (38.82%) was rated the highest challenge, while “ethical dilemma” (13.24%) was rated the least of the challenges of objectivity in research as perceived by academic staff and post graduate students in Akwa Ibom State.

Research Question four

The research question sought to find out the relationship between objectivity in research and dependability of the results among academic staff and post graduate students in tertiary institutions in Akwa Ibom State. In order to answer the research question, descriptive analysis was performed on the data collected as shown in table 4.

Table 4: Descriptive analysis of the relationship between objectivity in research and dependability of the results among academic staff and post graduate students in tertiary institutions in Akwa Ibom State

Variable	N	Arithmetic mean	Expected mean	R	Remarks
Objectivity in research	340	11.52	15.0	0.78*	*Strong to perfect relationship
Dependability of the results		14.23	15.0		

Source: Field Survey

The above table 4 presents the result of the descriptive statistics of the relationship between objectivity in research and dependability of the results among academic staff and post graduate students in tertiary institutions in Akwa Ibom State. The two variables were observed to have strong perfect relationship at 78%. The arithmetic mean of the level of practical objectivity in research (11.52) was observed to be lower than the expected mean score of (15.0). In addition to that, the arithmetic mean of the dependability of the results (14.23) was observed to be lower than the expected mean score of 15.0 meaning that the level of objectivity practiced by our researchers is far below the expectation. This also means that the findings and results made from our researchers due to lack of objectivity are not dependable enough to solve the prevalent problems encountered in our society. The result therefore means that there is remarkable relationship between objectivity in research and dependability of the results among academic staff and post graduate students in tertiary institutions in Akwa Ibom State.

Hypothesis One

The null hypothesis states that there is no significant relationship between objectivity in research and dependability of the results. In order to test the hypothesis, Pearson Product Moment Correlation analysis was used to analyze the data (see table 5).

TABLE 5: Pearson product moment correlation analysis of the relationship between objectivity in research and dependability of the results

Variable	$\sum X$	$\sum X^2$	$\sum XY$	r
	$\sum Y$	$\sum Y^2$		
Objectivity in research (X)	5069	80025	90163	
				0.96*
Dependability of the results (Y)	5717	101597		

***Significant at 0.05 level; df = 338; N = 340; Critical r-value = 0.113**

The above table 5 presents the obtained r-value of (0.96). This value was tested for significance by comparing it with the critical r-value (0.113) at 0.05 level with 338 degree of freedom. The obtained r-value (0.96) was greater than the critical r –value (0.113). Hence, the result was significant. The result therefore means that there is significant relationship between objectivity in research and dependability of the results, meaning that the higher the level of objectivity in research the higher the level of dependability of the result. The result is therefore in agreement with the research findings of Purdy, (2020) who stated that scientists should strive to maintain objectivity at every step in a study, from initial conception to

evaluation of results. Also in agreement with the findings of Guyatt & Busse (2020a) who asserted that current research should balance feasibility and efficiency against methodological rigor and carefully address methodology gaps as much as possible and that to support universal decision-making and minimize harm, the research community should focus on conducting and publishing trust-worthy evidence. The significance of the result caused the null hypothesis to be rejected while the alternative one was retained.

Conclusion

The world is currently faced with sequence of problems, since research as a process aims at finding out solution to problems; objectivity in scientific research is of immense relevance if any societal problem is to be put to an end. The study revealed that there is high need of objectivity in research; the roles of objectivity in research were many including elimination of bias, and increase in research result dependability. Also the challenges of objectivity in research were observed to be numerous including personal prejudices and biases and complexity of social phenomena. It was concluded that there is significant relationship between objectivity in research and dependability of the results.

Recommendations

1. Researchers should prioritize objectivity and minimize bias in research to ensure dependability of the results obtained.
2. Institutions of higher learning and Ministry of Education at the federal and state level should, as a matter of priority, create awareness on the danger of subjectivity in research and therefore objectivity with much emphasis in order to change attitude of students, academic staff and other researchers towards quest for transparency and open mindedness in research.
3. The research institutes and tertiary institutions should encourage objectivity in research by rewarding researchers identified with high level of fairness and reliability as this is bound to challenge others who just think research can be carried out anyhow.

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