
**The Roles and Prospects of Intellectuality 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, 20 post graduate students from Akwa Ibom State University, and 20 academic staff from each of the 5 institutions, giving a total of 180 respondents for the study. The Instrument titled "THE ROLES AND PROSPECTS OF INTELLECTUALITY QUESTIONNAIRE (RCOQ)" 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 level. The study revealed that there is high need of application of intellectuality in research. The result also proved that the roles and reality of intellectuality in research were numerous, including predisposition toward engaging in thoughtful analysis and evaluation of the quality and completeness of evidence. It was concluded that there is significant relationship between intellectuality in research and dependability of the results. One of the recommendations was that intellectuality and critical reasoning of scientists will enhance them to understand the importance of evaluating the quality and completeness of their evidence, which involves a meta-cognitive appraisal.

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

Introduction

It is obvious that everyone thinks as it is our nature to do so. But much of our thinking, left to it, is biased, distorted, partial, uninformed or down-right prejudiced. Yet the quality of our life and that of what we produce, make, or build depends precisely on the quality of our intellect and brainpower. Excellence in thought, however, must be systematically cultivated, especially by researchers (Paul & Elder 2006). The quest to surmount the challenges faced by man and create more knowledge to complement the existing store of knowledge makes man consistent and frequent in research. According to Akpan (2020), intellectuality 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 lacking intellectuality, its status as a source of knowledge sinks slowly into the horizon like a setting sun. It is a fact that over the years, research has become an integral part of our daily living and system. There is no discipline without involvement of research with the sole aim of making discovery, finding a dependable solution to a well-defined problem as in the case of corona virus and other prevalent crises. That means research is the process of development and verification of valid knowledge about things of health, material, social, economic or educational values we come directly or indirectly in contact with on daily basis at our different locations. Research is a scientific way of settling dispute and it helps to dispel rumours. It serves as a “decision court” for rival hypotheses.

Intellectuality assesses the mental power of an individual (researcher). According to Ibanga (1992), research is an intellectual, systematic, objective and accurate search for the solution of a well-defined problem; hence, intellectuality is prominently showcased due to its importance. Intellectuality understands the importance of evaluating the quality and completeness of their evidence, which involves a metacognitive appraisal. Do I have data of sufficient quality from sufficiently representative samples in order to make valid decisions? They consider all the available data and are aware if there are data they need but do not have. Researchers that are critical thinkers consider data in an unbiased manner.

Statement of the Problem

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 intellectuality in research. It is important to know here that intellectuality just like any other elements of research such as (objectivity, systematicity and purposefulness), needs to be fully employed if the research is to be unquestionable. It is a fact that an intellectually written research produces concrete and verified result, with high level of dependability. The application of one’s intellect leads to ability of the mind to come to correct conclusions about what is true or false, and about how to solve problems, it also leads to fewer errors and better outcomes, fueling personal and societal success. Therefore, the absence of intellectuality in research leads to a subjective, questionable research work, where the researcher is unable to distinguish between valid information, conspiracy, opinion, and propaganda. The above problems lay the foundation to which this study is built, to assess why it is vital to adopt the element of intellectuality in research writing.

Purpose of the Study

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

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

Research Questions

The following research questions were answered:

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

Hypothesis

The hypothesis below was tested:

H₀: There is no significant relationship between intellectuality in research and dependability of the results.

LITERATURE REVIEW

Concept of Research

Since research as a process aims at finding out solution to a problem, scientific research therefore is of immense relevance if any societal problem is to be put to an end. There are probably, as many definitions of research as there are researchers in various fields of study. This is because no single definition can completely describe what research actually is. Rummel, cited in Samuel (2016) defines research as an intellectual endeavour to discover, develop and verify knowledge; it is also the process of arriving at dependable solutions to problems through planned and systematic collection, analysis and interpretation of data. In his own contribution, Mouly (1970) cited in Samuel (2016) considers research as an intellectual, systematic, objective and accurate search for the solution of a well-defined

problem. Nwankwo, (1984) see it as a process of getting and developing valid knowledge about something of material, social, economic or educational values we come directly or indirectly in contact with. It is obvious from the various definitions, that an attempt to explain adequately what research is, involves a specification of four elements of research such as intellectuality, purposefulness, objectivity and systematicity.

Concept of Intellectuality in Research

Intellect is a term used in studies of the human mind and refers to the ability of the mind to come to correct conclusions about what is true or false, and about how to solve problems (Wikipedia). Intellect is often considered to be a branch of intelligence reflecting mainly its logical and rational side (Sangha, 2015). An intellectual is a person who engages in critical thinking, research, and reflection about the reality of society, and proposes solutions for the normative problems of society, and thus he or she gains authority as a public intellectual. Coming from the world of culture, either as a creator or as a mediator, the intellectual participates in politics, either to defend a concrete proposition or to denounce an injustice, usually by either rejecting or producing or extending an ideology, and by defending a system of values (Pascal and Sirinelli, 2002). As a descriptive term of person, personality, and profession, the word intellectual identifies three traits:

- **Educated:** Erudition for developing theories;
- **Productive:** Creates cultural capital in the fields of philosophy, literary criticism, and sociology, law, medicine, and science, etc.; and
- **Artistic:** Creates art in literature, music, painting, sculpture, etc.

In applying intellectuality in research, Dana (2014), posits that the human intellect is irreplaceable. Therefore, in research, the discipline based on human intellect called “knowledge management” was created. The human intellect (understanding) is the capability of a human mind to adopt critical thoughts, generalize experiences, to work with abstract terms, and to make conclusions from assumptions.

The Roles of Intellectuality in Research

The application of intellectuality leads to fewer errors and better outcomes, fueling personal and societal success (Willingham, 2019). The current view is that intellectuality is discipline specific and arises out of subject expertise. For example, a chess expert can think critically about chess, but that analytical skill does not transfer to non-chess situations. The role of intellectuality is creativity and innovation in the fight to problem solving, which gives rise to resilience and coping strategies. Based on Halpern’s (1998) work, cited in Stephen (2020), the roles and relevance of intellectuality and critical thinking in research has been grouped as:

Predisposition toward Engaging in Thoughtful Analysis: Intellectuality involves a personal disposition toward engaging in thoughtful analysis. Strong intellectual researchers display this tendency in situations where many people do not see the need, and they engage in more detailed, thorough analysis than many people feel necessary (Willingham, 2019). The variation in the predisposition to think analytically has been on display during the pandemic. Some people simply accept what they hear or read without verifying its validity. In social media, they might pass along information they find interesting or remarkable without distinguishing between valid information, conspiracy, opinion, and propaganda.

Awareness of One’s Own Knowledge, Thought Processes and Biases: Intellectuality requires insight into the accuracy of what one knows and the extent and importance of what

one doesn't know. It also involves insight into how one's biases might influence judgment and decision making (West et al., 2008). Intellectuality plays a major role in accurate self-awareness.

Evaluation of the Quality and Completeness of Evidence: Intellectual researchers understand the importance of evaluating the quality and completeness of their evidence, which involves a metacognitive appraisal. Do I have data of sufficient quality from sufficiently representative samples in order to make valid decisions? What data am I missing that I need? Critical thinkers understand that data vary in reliability, validity and measurement error. Intellectual researchers may not be able to evaluate the quality of evidence outside their area of expertise, but they can at least understand that data can vary in quality and it matters greatly for making decisions. Non-critical thinkers consider data in a biased manner. They may search only for information that supports their beliefs and ignore or discount contradictory data. Whereas, Intellectual researchers consider all the available data and are aware if there are data they need but do not have.

Evaluation of the Quality of the Reasoning, Decision Making, or Problem Solving: Intellectuality includes evaluating how well the evidence is used to create a solution or make a decision. There are general metacognitive questions that people can use to evaluate the quality of any argument. Have all perspectives been considered? Have all alternative explanations been explored? How might a course of action go wrong? Like judgments of evidence, judgment of the strength of an argument is fraught with biases (Kraft et al., 2015; Lewandowsky et al., 2012). Furthermore, people persist in beliefs in the face of clear contradictory evidence (Guenther & Alicke, 2008). Intellectuality involves intellectual humility, openness to alternative views and a willingness to change beliefs in light of sufficient evidence (Porter, & Schumann, 2018).

Ability to Inhibit Poor and Premature Decision Making: The last component of a critical thinker is resistance to drawing premature conclusions. Intellectual researchers know the limitations of their evidence and keep their reasoning and decision making within its bounds (Noone et al., 2016). They resist tempting but premature conclusions. The inhibitory aspect of Intellectuality is probably the least well understood of all the components and deserves more research attention.

Prospects of Intellectuality in Research

According to Brookfield in UFMCS Handbook, intellectuality, which comprises critical thinking is the awareness in linking questions, it is also the ability and willingness to ask and answer according to time. Stephen (2020) asserts that application of one's intellect leads to fewer errors and better outcomes, fueling personal and societal success. Unfounded beliefs and misinformation proliferates to fill the void of knowledge, which range from useless to counterproductive and even harmful. Therefore, as a researcher, the application of intellectuality and critical thinking results to Efficient Reasoning, Decision Making, and Problem-Solving skills. Every conclusion taken must be reasonable and relevant as it would be applied in everyday life involving others around (Elder, 2015).

Referring to intellectuality in research, Akpan (2017) states clearly that research is not a mere activity but a thoughtful and intellectual activity. This means that research appeals to one's intellect, provoking and enhancing one's thinking faculty. According to him, research requires a lot of forward and backward reasoning with application of high level of intelligence. Intellectuality understands the importance of evaluating the quality and completeness of the evidences. Actually, Dana (2014) posits that the human intellect is

irreplaceable. Therefore, in research, the discipline based on human intellect called “knowledge management” was created to solve problems.

According to Paul & Elder (2006), a well cultivated researcher who applies intellectuality and critical thinking: raises vital questions and problems, formulating them clearly and precisely; gathers and assesses relevant information, using abstract ideas to interpret it effectively; comes to well-reasoned conclusions and solutions, testing them against relevant criteria and standards; thinks open mindedly within alternative systems of thought, recognizing and assessing, as need be, their assumptions, implications, and practical consequences; and communicates effectively with others in figuring out solutions to complex problems. These, according to Paul & Elder, (2006) are the prospects of intellectuality in research.

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, 20 post graduate students from Akwa Ibom State University, and 20 academic staff from each of the 5 institutions, giving a total of 180 respondents used for the study. The Instrument titled “The Roles and prospects of Intellectuality 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 Questions 1

The research question sought to find out the extent to which intellectuality is applied in research among academic staff and post graduate students in tertiary institutions in Akwa Ibom State (see table 1).

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

EXTENTS	FREQUENCY	PERCENTAGE
VERY HIGH EXTENT	22	12.22*
HIGH EXTENT	31	17.22
LOW EXTENT	74	41.11**
VERY LOW EXTENT	53	29.44
TOTAL	180	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 intellectuality is applied in research among academic staff and post graduate students in tertiary institutions in Akwa Ibom State. From the results of the data analysis, it was observed that the highest percentage 74(41.11%) of the respondents affirmed that the extent to which intellectuality is applied in research is low. Also, the least percentage 22(12.22%) of the respondents stated that the extent to which intellectuality is applied in research among academic staff and post graduate students in tertiary institutions in Akwa Ibom State is very high. This means there is low level of intellectuality in research.

Research Questions 2

The research question sought to find out the roles of intellectuality in research as perceived by academic staff and post graduate students in tertiary institutions in Akwa Ibom State (see table 2).

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

ROLES	FREQUENCY	PERCENTAGE
Awareness of One's Own Knowledge, Thought Processes and Biases	36	20
Evaluation of the Quality and Completeness of Evidence	24	13.33*
Evaluation of the Quality of the Reasoning, Decision Making, or Problem Solving	73	40.56**
Ability to Inhibit Poor and Premature Decision Making	47	26.11
TOTAL	180	100%

** The highest percentage frequency

* The least percentage frequency

SOURCE: Field survey

The above table 2 presents the percentage analysis of the roles of intellectuality 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 the evaluation of the quality of the reasoning, decision making, or problem solving were rated the highest 73(40.56%) as affirmed by the respondents while evaluation of the quality and completeness of evidence were rated the least 24(13.33%) roles of intellectuality in research.

Research Questions 3

The research question sought to find out the prospects of intellectuality in research as perceived by academic staff and post graduate students in tertiary institutions in Akwa Ibom State (see table 3).

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

PROSPECTS	FREQUENCY	PERCENTAGE
VERY HIGH	107	59.44**
HIGH	45	25
LOW	24	13.33
VERY LOW	4	2.22*
TOTAL	180	100%

** The highest percentage frequency

* The least percentage frequency

SOURCE: Field survey

The above table 3 presents percentage analysis of the prospects of intellectuality 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 the highest percentage 107(59.44%) of respondents affirmed very high prospects of intellectuality in research while the least percentage 4(2.22%) of the respondents stated that the prospect is very low. The result therefore means that there is very high prospects of intellectuality in research.

Research Questions 4

The research question sought to find out the relationship between intellectuality in research and dependability of the results (see table 4).

Table 4: Descriptive analysis of the relationship between intellectuality in research and dependability of the results

Variable	N	Arithmetic mean	Expected mean	R	Remarks
Intellectuality in research	180	15.91	12.5	0.97*	*Strong to perfect Relationship
Dependability of results		12.90	12.5		

Source: Field Survey

Table 4 presents the result of the descriptive analysis of the relationship between intellectuality in research and dependability of the results. The two variables were observed to have strong to perfect relationship at 97%. The arithmetic mean for intellectuality in research (15.91) was observed to be greater than the expected mean score of 12.5. In addition

to that, the arithmetic mean as regards dependability of results (12.90) was observed to be higher than the expected mean score of 12.5. The result therefore means that there is remarkable relationship between intellectuality in research and dependability of the results among academic staff and post graduate students in tertiary institutions in Akwa Ibom State.

Hypothesis Testing One

The null hypothesis states that there is no significant relationship between intellectuality 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 intellectuality in research and dependability of the results

Variable	ΣX	ΣX^2	ΣXY	r
	ΣY	ΣY^2		
Intellectuality in research (X)	2864	45970	37358	0.97*
Dependability of results (Y)	2322	30408		

***Significant at 0.05 level; df = 178; N = 180; Critical r-value = 0.197**

The above table 5 presents the obtained r-value of (0.97). This value was tested for significance by comparing it with the critical r-value (0.197) at 0.05 level with 178 degree of freedom. The obtained r-value (0.97) was greater than the critical r-value (0.197). Hence, the result was significant, meaning that there is significant relationship between intellectuality in research and dependability of the results.

Discussion of Findings

The result of the data analysis in table 5 was significant due to the fact that the obtained r-value (0.97) was greater than the critical r-value (0.197) at 0.05 level with 178 degree of freedom. This result implies that the result therefore means there is significant relationship between intellectuality in research and dependability of the results. The result is in agreement with the research findings of intellectuality in research Dana (2014), posited that the human intellect is irreplaceable and that in research, the discipline based on human intellect called “knowledge management” was created. Intellectuality is one of the most cherished ideals of the educational research community. It also agrees with the opinion of Akpan (2020) who stated that intellectuality understands the importance of evaluating the quality and completeness of their evidence. The significance of the result of the analysis caused the null hypotheses to be rejected while the alternative one was retained.

Conclusion

The study revealed that there is high need of the application of intellectuality in research. The result also proved that the roles and reality of intellectuality in research were numerous including predisposition toward engaging in thoughtful analysis, awareness of one’s own knowledge, thought processes and biases, evaluation of the quality and completeness of evidence, and an ability to inhibit poor and premature decision making. It was concluded that there is significant relationship between intellectuality in research and dependability of the results.

Recommendations

1. Intellectuality and critical reasoning of scientists will enhance them to understand the importance of evaluating the quality and completeness of their evidence, which involves a meta-cognitive appraisal.
2. Institutions of higher learning and Ministry of Education at the federal and state level should create awareness on the dangers of lack of intellectuality in research, which can lead to a subjective and questionable research work. This is in order to change attitude of students, academic staff and other researchers towards quest for commitment and activation of brainpower when carrying out research.
3. Researchers should imbibe with the spirit of transparency and objectivity knowing the fact that information provided is bound to create much effect on the users of the research findings.
4. School authorities have remarkable roles to play as regards protection of the image and integrity of their institutions by ensuring that researchers remain objective and transparent in the reports of their findings.

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