



ROLE OF GENDER IN STUDENTS' PERCEPTION OF RESEARCH AND STATISTICS IN EDUCATION: A PANACEA FOR SUSTAINABLE GOVERNANCE

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ABSTRACT

The purpose of this study was to investigate the role of gender on students' perception of research and statistics among post graduate students in Abia State University as a panacea for sustainable governance. A survey design was used. Two hypotheses were formulated to guide the study. A sample of 150 post graduate students from Abia State University was drawn using stratified random sampling and purposive sampling techniques. The study used a 26-item instrument. The statistical technique used in testing the hypotheses was the independent T-test. Results showed that gender do not have any significant influence on the perception of research methods by students but had effect on their perception of statistics. It was recommended that, students should endeavor to master the skills and techniques that research and statistics will proffer to them; since when they graduate, they will be expected to go into the society, identify problems, follow the acquired techniques and proffer solution to the societal problems. When this is actualized, every citizen will contribute his/her part towards actualizing sustainable governance irrespective of his/her gender.

KEYWORDS: Gender role, Students' perception, Research, Statistics and Sustainable Governance.

INTRODUCTION

According to former Secretary General of the United Nations, Dr. Kofi Annan, "knowledge is power, information is liberating and education is the premise of progress in every society". One can deduce from this comment that, education is a transformatory agent and through education man who is said to be the main instrument for governance is transformed to appreciate the need for good governance, equipped to contribute to good governance, and through education also the fruit of good governance is harnessed and sustained.

This assertion is in line with Ememe (2014) who opined that education increases people's confidence, self reliance, belief in their ability to express themselves and to critically and

objectively diagnose their collective problems as well as activity and meaningfully participate in activities aimed at improving their lives and also maintaining sustainable governance.

Governance in the last decade has been extensively used in academic and policy circles, but it has very different and even contradictory meanings in generic terms. Governance has been defined by some authors as a process of decision making by which society defines and handles its problems (Edward, Joas, Sundback & Theobald 2005). According to World Bank (2006), governance generally implies, among other things, that states are suppose to minimize their size and promote economic and financial stability, assuming that this is a way to deal with social, educational inequalities and poverty.

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From the contemporary ideas of governance attention is drawn on the values, norms, principles that under pine decision making, and by doing so, they highlighted the control of individuals and their personal attitudes and behaviour as the origin of governance process (Dobso, 2009; Bary, 1999).

On the word “sustainability”, dictionaries provide so many meanings for sustain, the main ones being to-“maintain”, “support”, or endure. The tern ‘sustainable’ is relatively easy to interpret: it means “enduring” and ‘lasting’ and to keep in been. Therefore, sustainable governance is government that lasts. To actualize sustainable governance, a positive interaction must exist between governance and governed. Interactive governance has been defined by some authors as “the whole of interactions instigated to solve societal problems and to create societal opportunities including the formulation and application of principle guiding those interactions and care for institutions that enable or control them (Koolman, & Jentoft, 2009).

Moreover, sustainable governance indicators as highlighted by wikipedia includes status index which is measured through policy performance that also measures how well or badly a course of action that has been officially agreed and chosen by government and governed are implemented. Implicit of this indicator is that what determines the policy performance of a sustainable government is the availability of the resources from the environment, research and innovations and education. This is the main reason why nation today invest heavily on research, innovations and education in order to attain sustainable development and governance.

To actualize a quality research needed in resources for policy performance of sustainable governance, the tertiary institutions from their onset made research method a compulsory course for all the students irrespective of course of study (Nwogwugwu & Onyendi, 2016). As tertiary institution has the onus of training men and women in different areas and skills with the ability and capacity to building a nation through sustainable governance (Ariguzo, Anyakoha & Best-Njoku, 2016). The essence of training of men and women is to produce people who will produce and utilize research findings in making policy brief.

In utilization of research findings in policy briefs, Awwiri (2015) opined that, research results are often utilized to advocate for legislative and policy change at local, state and national levels. He further stated that, advocacy groups and

legislators took to current research trends and information to make decisions. That this is often presented in the form of policy briefs and outlines the rationale for choosing a particular policy alternative or course of action in a current policy debate for a sustainable governance.

Research according to McQueen & Knussen (2006), is defined as a process of investigating, scrutinizing or studying an issue, usually conducted according to a set of pre-determined guidelines and procedures. From this definition, the issues investigated on, are from the society which is made up of governed and governance. In the process of investigation, data are collected organized, analyzed and interpreted with the aim of making deductions and drawing conclusion which is the definition of statistics (Welkowitz, Conhen & Lea, 2012)

Furthermore, Aduloju, Iorniege and Aondohemba (2016) agreed that, it is through research that discoveries are made. They also opined that qualitative research uses data that is numerical in nature and is based on the assumption that the numbers will describe a single reality. Then statistical tools are often used to find relationships between variables.

Research method and educational statistics are compulsory course for all the students in education, the students are male and female that will turn out to be policy makers and keepers for sustainable governance.

A lot of research evidence exists in literature that shows that gender of students plays a vital role in the way they perceive things and also learn. According to Eluwa & Eba (2015), they revealed that, there is a significant difference between male and female undergraduates’ students in topics of disconnections in educational statistics. The study showed that male performed better than their counterpart in educational statistics during the study period.

Also, on the role of gender in planning and conduct of research among post-graduate students in Universities in Abia State, Nwogwugwu and Onyendi (2016) revealed that, gender of graduate students influenced their perception of the factors militating against the planning and conduct of their research. In contrary, gender has not also been shown to be a major influencing factor that qualifies as determinants in the quality of research, assessment and evaluation (Obowu-Adutchay, Mkpae & Ogiri 2015; Benjamin, 2009 and Jones, 2009).

Furthermore, information retrieved from net under Gender Update (2015), showed that persistently

high gender gap was found in many countries around the world whether they are developed or developing. It further stated that, the 2016 Global Gender Gap Index (GGGI), which examines gender inequality across four key areas of health, education, economy and politics showed that gender gap widened in many countries and, the gap in “economic participation and opportunity” showed the largest gap.

To actualize policy briefs needed for sustainable governance, research findings are utilized and the onus of tertiary institutions is to train both male and female students on how to produce quality research. The outcome of the study would enable the lecturers in the course of teaching research and statistics, to be conscious of gender bias towards these courses. This gender bias would help in the teaching and learning of research and statistics, the consciousness that male and female students differ in their unique perceptions.

This study therefore identified the role of gender in students' perception about research and statistics in education in Abia State University as a way forward towards actualizing sustainable governance free of gender bias.

Consequently, the following hypotheses guided this study.

1. Perception of advanced educational research methods is independent of gender of post graduate students.

2. Perception of advanced educational statistics is independent of gender of post-graduate students.

METHOD

A survey design was adopted for the study. The population comprised of all the post graduate students in faculty of Education in Abia State University, Uturu. There were 270 post graduate students in the Faculty of Education as at the time of this study. The sample consisted of 150 post graduate students randomly drawn by stratified random sampling and purposive sampling technique. A 26-item questionnaire titled Advanced Educational research Methods and statistics Questionnaire (AERMSQ) designed by the researcher was used in collecting the data of this study. The instrument was formatted on 4-point likert scale. It was validated by 3 experts in measurement and evaluation in the department of Educational Foundations, Abia State University therefore it was valid. Test-retest reliability technique was used to establish the reliability of the instrument. A reliability coefficient of 0.73 was obtained; therefore, the instrument was reliable. T-test was used to analyze the data.

RESULTS

Hypothesis 1: Perception of advanced education research methods is independent of gender of post-graduate students.

Table 1: Independent T-test analysis of perception of advanced educational research methods being independent of gender of post-graduate students.

Gender	N	Mean	SD	df	t	Sig	Decision
Male	68	30.33	2.46	148	-1.275	.993	Not Significant
Female	82	31.45	2.76				

Table 1 presents the result of the hypothesis which states that perception of advanced educational research method is independent of the gender of post-graduate students, the t-test yielded $t=-1.275, p > .05$.

This means that the perception of post-graduate students towards advance educational research

methods is not dependent upon their gender, therefore the null hypothesis is accepted.

Hypothesis 2: Perception of advanced educational statistics is independent of gender of post-graduate students.

Table 2: Independent T-test analysis of perception of advanced educational statistics being independent of gender of post-graduate students.

Gender	N	Mean	SD	df	t	Sig	Decision
Male	68	18.30	1.93	148	-3.287	.046	Significant
Female	82	25.73	9.28				

Table 2 presents the result of the hypothesis which states that perception of advanced educational statistics is independent of the gender of post-graduate students, the t-test yielded $t = 3.287$, $p < .05$.

This means that the perception of post-graduate students towards advanced educational statistics is dependent upon their gender, therefore the null hypothesis is rejected.

DISCUSSION

It can be seen from (table 1) that the gender of post-graduate students do not affect their perception of advanced educational research methods. This finding implies that graduates of this century can produce and utilize research findings needed in making policy briefs therefore in choosing policy making officials for a sustainable governance gender should not be considered as priority.

This finding is in agreement with the findings of Obowu-Adutchay, Mkpae and Ogiri (2015); Benjamin, (2009) and Jones, (2009). They stated that gender is not a major influencing factor that qualifies as determinants in the quality of research, assessment and evaluation.

The result in Table 2 revealed that gender of post-graduate students affects their perception of advanced educational statistics. This finding implies that emphasis should be made on gender whenever advanced educational statistics is being taught, as this will help in closing the gender-gap. This finding is in agreement with studies of Idowu, & Maxwell Borjo (2015). They revealed that there is a significant difference between male and female undergraduate students in topics of disconnections in educational statistics.

CONCLUSION

From the study it is evident that genders of students do not affect their perception of advanced research methods while it affected their perception of advanced educational statistics. Concerted efforts of students and lecturers are therefore needed to bridge this gender-gap in advanced educational statistics among the postgraduate students because

achieving gender equity is critical to sustainable governance.

In a nut-shell, one may ask "can there be sustainable governance with gender equality?" well, if sustainable governance must be achieved or realized, then much is needed in terms of researchable and statistical knowledge that can ensure dependable decision making free of gender bias.

RECOMMENDATIONS

Based on the findings of this study the researchers make the following recommendations:

1. Emphasis should be made on gender whenever any course in statistics is being taught in the schools. For instance, when both the lecturers and students are asking questions in the classroom and when appointing leaders of group assignments.
2. Lecturers teaching statistics should be paired (male and female). This will serve as a role model to the students.
3. Students (both male and female) should endeavor to master the skills and techniques that research and statistics will proffer to them. The reason being that, when they graduate, they will be expected to go into the society, identify problems, follow the acquired techniques and proffer solution to the societal problems. When this is actualize, gender will no longer be a role in students perception of research and statistics in education, then, every citizen will contribute his/her part towards actualizing sustainable governance irrespective of his/her gender.

REFERENCES

- Ariguzor, A. O., Anyakoha, I. C. and Best-Njoku, M., 2016. The place of tertiary education in nation building. *Nigerian Journal of Education*, 1(1), 179-183.
- Avwiri, H. E., 2015. Utilization of research findings in science education. *A Journal of Education Research and Statistics*, 14(1), 158-164.

- Aduloju, M. D., Iorniege, T. M. and Aondohenba, S.T., 2016. Emerging trends in educational research and evaluation. *ASSEREN Journal of Education*, 1(1), 31-40.
- Barry, J., 1999. *Rethinking green politics: Nature and Progress*: UK: Sage Publications.
- Benjamin, R., 2009. *The CLA what is today, what is tomorrow*. New York.
- Dobson, A., 2009. Environmental citizenship: Towards sustainable development. *Sustainable Development*, 15, 276-285.
- Edward, B., Joas, M., Sundback, S. and Theobald, K., 2005. *Governing sustainable Cities*. London: Earthscan Publishers.
- Eluwa, I. O. and Eba, M. A., 2015. Undergraduate students' disconnections in statistics: Implication for assessment reforms. *Nigeria Journal of Education Research and Evaluation*, 14 (3), 20-32.
- Ememe, P. I., 2014. Adult education: A panacea for sustainable development. In A.D.U. Onuka (Ed) *Analysing educational issues: Essays in honour of Emeritus Professor Pai Obanya*. Society for the Promotion of Academic and Research Excellence (SPARE) Publishers.
- Gender update, 2015. Gender and sustainable development. Retrieved on 7th July, 2015 from <http://www.bridge.ids.ac.uk/updates/gender-and-sustainable-development>.
- Jones, A., 2009. Redisciplining generic attributes: The disciplinary content in focus. *Studies in Higher Education*, 34, 85-100.
- Koolman, J. and Jentoft, S., 2009. Meta-governance values, norms and principles, and the making of hard choices. *Public Administration*, 87, 818-836.
- McQueen, R. A., and Knussen, C., 2006. *Introduction to research methods and statistics in psychology*. England: Pearson Education Limited.
- Nwogwugwu, C. E. and Onyendi, J. I., 2016. Perceived factors militating against effective planning and conduct of research among graduate students in Universities in Abia State. *Nigeria Journal of Educational Research and Development*, 3, 224-230.
- Obowo-Adutchay. V., Mkpae, S. G. and Ogiri, R. S., 2015. Determinants of quality assurance in research, assessment and evaluation in tertiary institution in Nigeria. *Nigeria Journal of Educational Research and Evaluation*, 14(3), 215-225.
- World Bank, *Equity and Development Report*, 2006. World Bank: Washington, USA.
- Welkowitz, J., Cohen, B. H. and Lea, R. B., 2012. *Introductory statistics for the behavioural sciences (7thed)*. New Jersey: John Wiley and Sons Publishers.