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INFLUENCE OF RESEARCH OUTCOMES IN THE IMPLEMENTATION OF EDUCATIONAL POLICIES IN HIGHER EDUCATION FOR GLOBAL CHANGE

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Abstract

Research outcomes in which recommendations are based is important and cannot be ignored if implementation of policies in higher education are to be achieved. Hence, research outcomes are paramount to implementation of policies. The study therefore, investigated influence of research outcomes in the implementation of educational policies in higher education for global change. Three research questions and hypotheses were used for this study that adopted the non-experimental design of correlational research type. This study population comprised of 2625 teaching staff of Rivers State universities (Rivers State University (RSU) and Ignatius Ajuru University of Education (IAUoE) and Captain Elechi Amadi Polytechnic (CEAPOLY). Sample size of 400 teaching staff was derived from the population using simple random sampling technique. The data was collected using "Research Outcomes Questionnaire" and "Implementation of Educational Policies in Higher Education Questionnaire". The instruments were face and content validated by two experts in Measurement and Evaluation and the Educational Management. Pearson Product Moment Correlation was used to answer the research questions. Findings revealed a high positive relationship exists between research outcomes and lecturer to students' ratio, hybrid teaching and conducive learning policies in higher education. In conclusion, research outcomes positively influenced implementation of educational policies in higher institutions. Consequently, recommendations made were that policy makers should be guided by research outcomes bothering on lecturer to students' ratio in order to review the current lecturer to students' ratio policy for a robust teaching and learning experience for both lecturers and students among others.

Keywords: Educational policies, Higher Education, Global Change, Implementation, Research Outcomes

Introduction

Higher education is viewed as the education students undergo after secondary education. On the other hand, it is the education provided in the monotechnics, polytechnics, colleges of education, universities, as well as those institutions offering correspondence courses such as National Open University of Nigeria. The goals of higher education as listed in National Policy on Education (2014) include: contributing to nationwide growth via high level germane workforce training; advance and teach appropriate standards for the being of the individual and society; advance the intelligent ability of individuals to comprehend and value their local and external environments; obtain both bodily and knowledgeable aids, which will allow persons to be self-reliant and valuable adherents of the society; help and encourage scholarship and community service; forge and strengthen national unity, and to endorse national and international empathetic and communication. The National policy on Education (2014) also stipulated that, higher institutes shall follow these goals via education, research, and growth and so on. In the bid to ensure viable higher education in Nigeria, the government established the National Universities Commission (NUC) to formulate different educational guidelines for the growth and administration of higher institutions in Nigeria. Specifically, they are to formulate intermittent dominant strategies for the balanced and organized growth of all Universities, Polytechnics, Monotechnics and Colleges of Technology in Nigeria (Kalagbor,

Amie-Ogan and Sam-Kalagbor, 2023). Furthermore, one visualization of the NUC is to be an energetic supervisory agency acting as a promoter for constructive revolution and modernization for the conveyance of quality university education in Nigeria and its mission statement remains to pledge the agreed progress of a well-synchronized and inventive university structure that will assure quality and appropriate education for national advancement and global competitiveness. Similarly, the NBTE mission is to encourage the invention of trained technical and specialized workforce for the national economy. The mission and vision of these educational agencies can only be attained through innovative research in our higher institutions that are readily harnessed with the activities of the industries, hence the momentousness of the town and gown helix.

An educational policy is fundamentally a declaration whether transcribed or unprinted that comprises values, guidelines and principles that seeks to deliver responses to some enquiries. Noun (2012) defined educational policy of Nigeria as an over-all report encompassing ideologies, procedures, and rubrics, that administer various of the results on how to instruct children, where to get them cultured, where to get them working, who to impart them, how to finance their education, what to teach, how to impart skills, aims, purposes and even the philosophy. Also, Noun (2012) observed that articulating a way or calculating a strategy is pointless, except it is executed. According to National Open University of Nigeria, implementation is the transformation of education plan or rule into action. Consequently, The National Policy on Education (2014) in its policy plan, stated that university research shall be pertinent to the nation's growth goals. In this respect, universities shall be reinvigorated to circulate their study outcomes to both government and businesses. This implies that research findings have significant roles to play in national development and its sustainability.

Research is concerned with discovering results to enquiries elevated, experiential matters or phenomena or proceedings in the society through organized and rational events. According to Akaninwor (2014) research is learning which is used to uncover or found concealed singularities through suitable examination in all the grounds of human effort. Research cannot be carried out in a vacuum, as a researcher is either motivated by an observation made or experiences garnered in the society which spurs him/her to investigate the why of a seeming problem? Nigeria's higher institutions have made it obligatory for their teaching staff, under graduates and post graduate students to conduct research in their various disciplines to enable their promotion and graduation respectively. Over the years the staff and students of these higher institutions have carried out a pool of research for institutional and national implementation for global change. Rather than translate these research outcomes to products that will benefit her citizenry in all facets of life and ensure economic, social and political emancipation, the reverse continues to be the case in Nigeria. The question now is, where are these submissions? These research outcomes were to promote the much sought for town-gown helix for actualization and national development, but it has continued to elude us as a country; hence driving us harder into the sphere of less developed countries.

From the foregoing, research has become more widely used in deciding creative policies. Presently, there is a growing interest in strengthening the link between research and educational policymaking in order to fill the gap between research outcomes and the implementation of educational policies such as students to lecturer's ratio, hybrid teaching and conducive learning environment. Implementation of research outcomes help in determining what educational policy works or does not work; determine which method suits a particular policy and identify the preferred method. Research outcomes can influence prevailing strategies, as the government can revise its guidelines and introduce novel strategies based on the research outcomes for the following: students to lecturer ratio, hybrid teaching and conducive learning environment which are the educational policies under discuss in this study.

Lecturer to students' ratio means the sum of students per teacher or in other words the

usual sum of students a teacher educates in a school (Graue & Rauscher, 2019). National Universities Commission Benchmark Minimum Academic Standards (BMAS) of 2007 postulated the succeeding teacher/student's ratio for degree awarding institutions thus, 1:20 for science; 1:15 in Engineering and Technology; 1:10 for Medicine and Pharmacy, 1:15 for Agricultural and Environmental Sciences and 1:30 for Education, Management Science, Social Sciences, Law and Arts. In Nigerian higher institutions lecturers are few and over-laboured due to overpopulation of students (Eric, 2019). In some public higher institutions, the ratio of teachers to students (TSR) is as high as 1:100, which far exceeds of the recommended ratio. This means that the policy on Student to lecturer's ratio is not implemented irrespective of research outcomes showing its relationship with students' academic achievement. Hoxby (2016) investigated effects of student-teacher ratio on academic achievement of selected secondary school students in Rivers State. The study was a descriptive survey design using simple random sampling technique to select a sample of 120 students from selected schools. Descriptive and Inferential statistics were employed to analyze the hypotheses generated. Result revealed a significant relationship between student-teacher ratio and students' academic achievement.

Hybrid teaching is a type of pedagogy that combines two teaching environments namely face-to-face instruction and on-line instruction. Hybrid teaching is a pedagogical practice whereby lecturers alternate the use of face-to-face teaching method and virtual teaching on-line to enhance learning of students. Bonderud (2021) opined that hybrid teaching is a mix of the out-of-date face-to-face and the online knowledge so that teaching ensues both in the classroom and online. Lecturers consequently impart remote and in-person students at the same time using tools such as Google Classroom and Zoom. Hybrid events might comprise asynchronous education fundamentals, comprising online trainings and pre-recorded video materials, to backing face-to-face classroom gatherings. The hybrid teaching became prominent in Nigeria higher institutions during the outbreak of COVID-19 Pandemic in 2020. During the period, many advanced institutes in Nigeria implemented the use of technologies like Zoom, Skype, WhatsApp, Google Class, Telegram among others for instructional delivery in schools. In consonance with world best practice for instructional delivery using hybrid teaching, National Universities Commission Benchmark Policies (2007) specified that net connectivity amenities, public address system, tape recorders/players, computer units and other IT facilities should be in every department. The policy also specified that for effective implementation of the same that, lecturers should be provided with essential apparatuses such as desktop, laptop, scanner, printer and cyberspace amenities. However, it is regrettable that no such provisions have been made till date for lecturers to improve teaching and learning in the various departments of higher institutions in Nigeria (Alexander, 2013). Singh and Arya (2020) corroborate with the view of the need for hybrid teaching for effectiveness of instructional delivery and students' academic performance. Learning strategies involving virtual collaborative learning was found to make significant impact in the teaching and learning process as lecturers deliver their lectures easily, participate in distance conferencing as well as students' easy access to lecturers and lecture materials (Summer & Dan, 2012). Gathers (2016) in a related review found that virtual collaborative learning has features that enhanced students learning and performance which includes shifting of period and space of informative communication with the aptitude to backing content compressed in numerous plans vis: multimedia, video and text which provides contact to teaching content that exploits all media characteristics.

According to Eric (2019), institute environment incorporates all the variables that impact students' scholarship. It embraces classroom and its background, teacher-students' ratio, chastisement, instructional resources, teacher-students' affiliation, school head-teachers' association, school head-students' connection, the syllabus contents, the investigation structure, archives, mechanical garages, workrooms, schoolyards, expediencies, hygiene, conservation ethos,

esthetics and so forth. To maintain a conducive learning environment, National Universities Commission Benchmark Policies (2007) stated that 0.65sq metre per full-time student had better be sustained in meeting standards of a mixture of teaching space and lecture theatres of diverse volumes. It further specified that acceptable lecturers' workplaces, schoolrooms, purposeful and well-well-appointed language workshop, insulated rooms and studios, audio-photographic rooms, trainings books, periodicals and orientation books in the main and departmental archives should be in every department. Every decent learning setting is related with pastel coloring, suitable lighting, meticulous acoustics and appropriate airing which has a unswerving influence on the teaching learning process. It emancipates students from bodily pain, makes it easy for scholars to focus on study and persuades students in rational thinking. Pupils in good learning milieu indisputably accomplish advanced accomplishment (Chiang & Lai, 2016). Alexander (2013) and Freiberg (2018) said that a favorable and healthful school atmosphere profiles the approaches which children grow about the school as well as encourages teaching and learning. Also, collaboration of many features of school and teaching space temperature can generate a fabric of backing that allows all associates of the school community not only to study but also to impart at optimal heights. Equally an adverse school temperature interfares with knowledge and progress of students.

There are myriads of research outcomes across the globe and recommendations such as parents should ensure they provide students with materials such as laptops and tablets to enable them access online and multimedia information, school principals should ensure that students are encouraged to provide feedback on their perception of how learning environment affects their learning outcomes and so on made as remedies to problems identified. Regardless of the prominence of these research outcomes, there is a lag in their execution in Nigeria as countless policy-relevant research outcomes end up on the shelves of researchers and policymakers exclusive of being measured for execution. This could be as a result of a widespread perception bothering on the quality of research published by researchers in the country. There are perceptions of government's ineptitude in the implementation of humongous research outcomes on educational policies over the decades that have kept the educational system in a worrisome state that needs reengineering to conformity with global standards. Based on this assumption the study investigated the influence of research outcomes on the implementation of educational policies in higher education for global change.

Purpose of the Study

The study investigated the influence of research outcomes in the implementation of educational policies in higher education for global change. Explicitly, the objectives of the study are to:

1. Examine the relationship between research outcomes and lecturer to students' ratio in Rivers State Universities and Captain Elechi Amadi Polytechnic in Rivers State.
2. Ascertain the relationship between research outcomes and hybrid teaching in Rivers State Universities and Captain Elechi Amadi Polytechnic in Rivers State.
3. Determine the relationship between research outcomes and conducive learning environment in Rivers State Universities and Captain Elechi Amadi Polytechnic in Rivers State.

Research Questions

The following research questions guided the study.

1. What is the relationship between research outcomes and lecturer to students' ratio in Rivers State Universities and Captain Elechi Amadi Polytechnic in Rivers State?
2. What is the relationship between research outcomes and hybrid teaching in Rivers State Universities and Captain Elechi Amadi Polytechnic in Rivers State?
3. What is the relationship between research outcomes and conducive learning

environment in Rivers State Universities and Captain Elechi Amadi Polytechnic in Rivers State?

Methodology

This study assumed the non-experimental design of survey research type. This study was carried out in Rivers State University (RSU), Ignatius Ajuru University of Education (IAUE) and Captain Elechi Amadi Polytechnic (CEAPOLY). Population of this study consisted of the 2625 teaching staff of Rivers State Universities (RSU and IAUoE) and CEAPOLY. A sample size of 400 was determined using Taro Yamane's Formula and simple random sampling technique was used in selecting the number amongst the institutions. Two self-structured instruments were used for data collection. They were Research Outcomes Questionnaire (RSQ) and Implementation of Educational Policy of Higher Education Questionnaire (IEPHEQ)". RSQ and IEPHEQ were divided into two sections. Section A of both instruments elicited the demographic summary of the respondents. While section B of RSQ consisted of 18 questionnaire items used in answering the research questions, section B of IEPHEQ has 10 questionnaire items. The instruments were designed using 4-point rating scale of Strongly Agreed (SA), Agreed (A), Disagreed (D) and Strongly Disagreed (SD) with a numerical value of 4, 3, 2 and 1. Reliability of the instruments was ascertained with the use of test-retest method for a measure of internal consistency of the instruments using 20 lecturers outside the study area. The recorded responses were correlated using Pearson Moment Correlation and a reliability coefficient of 0.78 was obtained. Data gathered from the respondents were investigated using Pearson Product Moment Correlation (PPMC). The value of r was interpreted as high, moderate and low when it was in the range of 0.60 and 1.00, 0.50- 0.59 and 0.00 to 0.49 respectively.

Results

Research Question 1: What is the relationship between research outcomes and lecturer to students' ratio in Rivers State Universities and Captain Elechi Amadi Polytechnic in Rivers State?

Table 1: PPMC Analysis of Responses on the Relationship Between Research Outcomes and Lecturer to Students' Ratio

Variables	N	Σx Σy	Σx^2 Σy^2	Σxy	DF	α	r-cal	r-crit	Decision
Research Outcomes	400	941.18	2506.19	2581.56	398	0.05	0.81	0.113	High Positive Relationship
Lecturer to Students Ratio	400	1050.44	2821.03						

Source: Researchers' Field Result, 2023.

Result on Table 1 showed a high and positive relationship between research outcomes and lecturer to students' ratio in Rivers State Universities and Captain Elechi Amadi Polytechnic in Rivers State with a correlation coefficient of 0.81. This infers that research outcomes have a strong association with lecturer to students' ratio. The implication of this result is that the lecturer to students' ratio policy for higher institutions is expected to be implemented if higher education in Nigeria must make some global impact.

Research Question 2: What is the relationship between research outcomes and hybrid teaching in Rivers State Universities and Captain Elechi Amadi Polytechnic in Rivers State?

Table 2: PPMC Analysis of Responses on the Relationship Between Research Outcomes and Hybrid Teaching

Variables	N	Σx Σy	Σx² Σy²	Σxy	DF	α	r-cal	r-crit	Decision
Research Outcomes	400	720.31	2312.11	2080.22	398	0.05	0.62	0.113	High Positive Relationship
Hybrid Teaching	400	1050.44	2850.44						

Source: Researchers' Field Result, 2023.

Results on Table 2 revealed a high and positive relationship exists between research outcomes and hybrid teaching in River State Universities and Captain Elechi Amadi Polytechnic in Rivers State. This is proved by the correlation coefficient of 0.62 that implies that research outcomes have a relationship with the implementation of hybrid teaching in higher institutions.

Research Question 3: What is the relationship between research outcomes and conducive learning environment in Rivers State Universities and Captain Elechi Amadi Polytechnic in Rivers State?

Table 3: PPMC Analysis of Responses on the Relationship Between Research Outcomes and Conducive Learning Environment

Variables	N	Σx Σy	Σx² Σy²	Σxy	DF	α	r-cal	r-crit	Decision
Research Outcomes	400	1010.68	2578.84	2689.55	398	0.05	0.74	0.113	High Positive Relationship
Conducive Learning Environment	400	1050.44	2850.50						

Source: Researchers' Field Result, 2023.

Result on Table 3 above showed a high and positive relationship between research outcomes and conducive learning environment in Rivers State Universities and Captain Elechi Amadi Polytechnic in Rivers State. This was revealed in the correlation coefficient of 0.74 which proved that research outcomes have a relationship with conducive learning environment policy implementation.

Discussion of Findings

Finding in research question 1 revealed there is high positive and significant relationship between research outcomes and lecturer to students' ratio in Rivers State Universities and Captain Elechi Amadi Polytechnic in Rivers State. The findings corroborated with Hoxby (2016) whose research finding showed there is a significant relationship between student-teacher ratio and students' academic achievement.

Results from research question 2 showed a high and positive significant relationship between research outcomes and hybrid teaching in Rivers State Universities and Captain Elechi Amadi Polytechnic in Rivers State. Singh and Arya (2020) corroborate with the research findings with the view that there is need for hybrid teaching for effective instructional delivery and students' academic performance. Furthermore, learning strategies involving virtual collaborative learning was found to make significant impact in the teaching and learning process as lecturers deliver their lectures easily, participate in distance conferencing as well as students' easy access to lecturers and lecture materials (Summer & Dan, 2012). Gathers (2016) in a related review also supported the research findings as it was found that virtual collaborative learning has features that enhanced students learning and performance which include shifting of period and space of instructive communication with the aptitude to support content captured in various arrangements vis: hypermedia, video and text which provides admittance to teaching content that feats all media qualities. In line with the findings the National Universities Commission Benchmark Policies (2007) stipulated those provisions for the availability of cyberspace connectivity amenities, tape recorders/players, public address system, processor units/ and other IT amenities be appropriately made for every department and desktop, laptop, scanner, printer and internet facilities for teachers.

The result of research question 3 showed a high and positive significant relationship between research outcomes and conducive learning environment in Rivers State Universities and Captain Elechi Amadi Polytechnic in Rivers State. The findings are in tandem with Chiang and Lai (2016) who found that scholars in good learning setting certainly reach higher achievement. In addition, Alexander (2013) and Freiberg (2018), noted that a favorable and well school setting forms the attitudes which children grow concerning the school as well as encourages teaching and learning. Also, communication of many features of school and classroom weather can make a fabric of support that allows all members of the school community not only to acquire but also to impart at optimal stages and equally a negative school climate that interferes with learning and growth of students.

Conclusion

In conclusion, findings of this study proved that research outcomes have a high and positive relationship between the implementation of educational policies such as lecturer to students' ratio, hybrid teaching and conducive learning environment in Rivers State Universities and Captain Elechi Amadi Polytechnic in Rivers State for global change.

Recommendations

The following recommendations were made from the findings:

1. Policy makers should be guided by research outcomes bothering on lecturer to students' ratio in order to either review the current lecturer to students' ratio policy for a robust teaching learning experience for both lecturers and students.
2. Administrators should ensure that research outcome recommendations on in-service training for lecturers is

implemented fully with a view to enhancing integration of hybrid teaching in higher institutions in Rivers State.

3. Government should ensure that the learning environment in higher institutions of learning conform to the stipulated minimum standards as enshrined in the National Universities Commission Benchmark Minimum Academic Standards.

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