

EDUCATIONAL RESEARCH FOR SUSTAINABLE DEVELOPMENT

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ABSTRACT

The paper examined meaning of research, definition of educational research, types of educational research and classification. It also touches on the significance of educational research, problems, conclusion and recommendations were drawn which form part of Information and Communication Technology (ICT) should be made right from the primary school to university in that it brings rapid development by expanding our economy, improves teaching and learning and makes our economy stable.

Keywords: Educational research, Development, classification, significance, problems

INTRODUCTION

There is no any meaningful development in the sub-Saharan African countries without embarking on educational research, it has therefore become mandatory for all nations and the world in general to undertake research based on its usefulness to the society be it locally, nationally and internationally. Educational research has the honour to finding solutions to the multi-various educational issues, the problems pervading teaching and learning, range from educational objective, curriculum planning, methodologies, administration practices, evaluation practices and even the relevance of educational products.

Educational researches push backwards the frontiers of ignorance on educational issues; seek ways of giving empirical support for the improvement of educational program and policies which bring sustainable development in our society. Inside the write-up form part of action or applied research and pure or fundamental research as types, while historical research, descriptive and experimental form classes of search.

Educational research has been bedeviled by several problems which has retarded educational development such as inadequate funding of research projects, lack of necessary equipment, facilities and materials, poor communication network and attitude of the government and society. Most advanced countries rely on research findings and such findings are used as basis for developmental innovation, therefore, research should be encouraged in our society by individuals, lecturers, government, non-governmental organization, youths, men and women so as to achieve sustainable development in our society.

MEANING OF RESEARCH

Various authors have defined research in different ways. Kerlinger (1986) defines research as “systematic, controlled, empirical and critical investigation of hypothetical prepositions about the presumed relations among phenomena”.

Asika (1991) defines research “any organized enquiry that aims at providing information for solving identified problems”. Bello and Ajayi (2000) define research as “a process of acquiring knowledge through organized and systematic investigation”. Singh (2006) defines research as “the process of arriving at dependable solution to a problem through the planned and systematic collection, analysis and interpretation of data”. Microsoft Encarta Dictionary (2008) defines research as a “Methodical investigation into a subject in order to discover facts, to establish or revise a theory, or to develop a plan of action based on the facts discovered”.

Okoro and Hassan (2009) defined research as “systematic approach for finding answers to questions raised in one’s desire to examine relationships among different variables in one’s environment.

From the various definitions above, it can be concluded from the point of this writing that research comprehensively means a systematic, scientific and empirical process of collecting, analyzing, interpreting data and making inferences from the result of such data in solving identified problems on a given population.

Research is an on going process every day life, research is taking place in our educational institutions, business, management, administration, finance, marketing, economics, industries, agriculture and military.

MEANING OF EDUCATIONAL RESEARCH

Educational research has also been defined variously by different people, Osuala (1982) defines educational research as a “systematic and scholarly application of scientific method, interpreted in its broadest sense to the solutions of educational problems. In the same vein, Olayiwola (2007) defines educational research as “the formal and systematic application of scientific method to the study of educational phenomena”. Educational research is therefore a scientific research because it adopts the scientific methods. It is an empirically systematic approach to finding solutions to problems that arise in the field of education. In order words, data are obtained via conventional procedure using conventional instruments. Such data are further processed via a conventional data analysis procedure, results of which are used to draw inferences and conclusions.

Best and Kahn (1998) see to educational research as a “systematic, scientific and empirical process of collecting, analyzing, interpreting data and making inferences from the result of such data in solving identified educational problems on a given population”. Educational research encompasses many different studies all of which attempt to better understand and improve the teaching, learning and the general educational process. These studies include research on topic such as teaching methods, class room management, psychology, testing, child development, cognitive science which at the end make our citizens to become lawyers, pilots, engineers, doctors, pharmacists, ministers etc. where they can apply or transfer the different potentials acquired to develop our society and in turn bring sustainable development. In conclusion, educational research is a systematic and careful approach employed in providing answers to educational problems by the process of logical operation when the problem borders on educational issues, the process of arriving at a solution Nworgu (1991). Educational research in Nigeria and the African sub-regions have the honour to finding solutions to the multi-various educational issues, the problems facing teaching and learning ranges from educational objective, curriculum planning, methodologies, administration practices, history of education, psychology of education, evaluation practices and even the relevance of educational products – Ogunleye (2000).

TYPES OF EDUCATIONAL RESEARCH

Abubakar (2013) identified the following as the main types of educational research in our society.

- 1. Action or Applied Research:** This is a kind of research that is directed towards solving a specific problem either in the classroom or in the school. This research is however specific and limited therefore, it can be generalized. Action research seeks to through systematic and scientific method of data collection and analysis to evolve solution to identified problems.
- 2. Pure or Fundamental Research:** This is concerned with extending the horizon of educational knowledge by adding to the sum total of existing knowledge or developing new theory.

CLASSIFICATION OF EDUCATIONAL RESEARCH

Yusuf (2013) and Jackson (2009) identified the following classes of educational research such as;

- a. **Historical Research:** This deals with the determination, evaluation and explanation of past events, essentially for the purpose of giving a better and clearer understanding of the present and making a more prediction of the future. It has these characteristics:
 - i. Determination of past events
 - ii. Evaluation of past events
 - iii. Examination of past events
 - iv. Understanding the present
 - v. Predicting the future

Historical research employs techniques or facts that are generally obtained through discussion, oral interviews, oral tradition, the library or archives being the major sources of information gathering drive. Historical research assist us to know the success and failures of the past for educational reforms developed based on records keeping culture and evidences or proofs seen.

- b. **Descriptive Research:**

Descriptive research is concerned with the collection of relevant data for the purposes of describing and interpreting existing conditions, prevailing practices, opinions, beliefs, attitudes etc. It focuses on a given population in an attempt to explain the issues that will lead to whatever the education problem identified for such population. It has four common types, namely;

- a. **Survey Study:** Survey generally means to take a general view of something. Survey is a technique where the desired characteristic of a given population is systematically examined. It involves a large number of what sample unit is, e.g persons. Survey uses descriptive statistics like mean, standard deviation, variance, percentage etc.
- b. **Case Study:** This is a detail observation of a person, group or institutions etc. for the purpose of understanding what goes on in each section identified through information gathering.
- c. **Correlation Study:** This measures the degree of relationship between two or more variables for the purpose of describing and comparing such variables e.g. "Relationship between students performance in JAMB and achievement in university degree examination". It has two types such as Pearson Product Moment correlation coefficient and Spearman Rank Order Correlation Coefficient.
- d. **Developmental Studies:** Bello and Ajayi (2000) emphasized that most educational issues and with growth or progress i.e a child in secondary school grows in experience, academic knowledge etc. that may be of interest to educational research. The growth referred here may be facilities, equipment i.e growth in Library facilities nationwide. It has two approaches such as:
 - i. **Longitude Cross Sectional Studies:** These are studies that take a fairly long period of time to complete e.g. Research on Masters Degree and Ph.D Thesis.
 - ii. **Export Factor Study:** This has no control group or manipulation of variables i.e a researcher studies the effect of alcohol use by commercial drivers and road accidents.
- c. **Experimental Studies:** This determines causes of relationship i.e whether one factor causes a change in another by manipulating some variables and observing what effects they will have on the other variable, it has two types namely:
 - i. **True Experimental Research:** This is where groups participating in the experiment are randomly selected and assigned. It has no bias, partiality but based on objectivity.
 - ii. **Quasi Experimental Studies:** In this research, participants are not randomly selected and assigned. You cannot manipulate the variables as you can in true experimental studies.

SIGNIFICANCE OF EDUCATIONAL RESEARCH

Akinade (2001) identified the below as significance of educational research in our African Communities;

1. **It leads to advancement of knowledge:** Through educational research, knowledge has continued to accumulate and build up. Several researches are being conducted in education, which help to expand the knowledge of education.
2. **It increases understanding of educational phenomena:** Educational research increase awareness and understanding of educational phenomena.
3. **It provides solution to educational problems:** The fundamental significance of educational research is problem solving. Such problems may range from instructional methodology and materials, administration and evaluation of educational programmes and cases of indiscipline are reduced in the society which makes our youths to be patriotic citizens and in turn brings progress and development.
4. **Help to Improve Educational Practices:** Research in education tends to improve teaching and learning. This is because, research findings, addresses current trend and issues in education
5. **It brings about Overall Development and Progress:** Most advanced countries rely on research findings and such findings are used as basis for developmental innovation. The world is dynamic and daily business too has to be dynamic. This dynamic is achieved mostly through research which has led to the introduction of more, cheaper, better products and indeed services. The Information Communication and Technology (ICT) revolution that brought about internet and Global Satellite Mobile Communication (GSM) is all about research. Therefore, research is a must to continuously update its attitudes, approaches, products goals, methods and machinery in accordance with the changing environment in which it operates.

PROBLEMS OF EDUCATIONAL RESEARCH

Yin (2003) identified the following as major problems of educational research such as;

- i. **Inadequate funding of research projects:** There is lack of commitment on the part of the governments to educational research. In our Colleges and Universities, the situation has assumed crises dimension. There are academic staff that have stayed for ten years in service and had never had a single research grant either from within or outside, they use their salaries to fund their research so as to have publications for promotion.
- ii. **Poor Communication network:** This affects educational where mail and telephones could be used in collecting data. There is lack of effective and efficient transportation systems. Some places are remote that they are hardly accessible by any means of modern transportation.
- iii. **Unattractive working conditions for Educational Research:** Educational research workers are not well paid and no incentives for them. Few live in residential quarters while majority are forced to live inside the town and suffer all sort of hardships ranging from transportation, incessant power disruption, shortage of water supply. How can research workers in Nigeria perform as well as their counterparts in the developed countries where the conditions are very congenial to research work?
- iv. **Attitude of the Government and Society:** Government and society in general, seem to have a poor attitude to research by not paying attention to issues of researchers. The government and society see money allocated to educational research as “Wasted”
- v. **The Publish or Perish Syndrome:** Promotions in Colleges and Universities upward mobility on the job is largely determined by the amount of publications one has been able to make. Failure to publish one suffers for donkey years on the same level without promotion.
- vi. **Lack of necessary equipment, facilities and materials:** There is inadequate resources in that many lecturers cannot find a single microscope in good working condition for science courses, most are obsolete or bad state of repairs.

CONCLUSION

Developing countries such as Nigeria need to embark on daily research so as to push backwards the frontiers of ignorance on educational issues and to proffer ways of bringing to focus areas of deficiencies of a given educational problem.

Hence, this paper has examined definition of educational research, types and classes. It also touches on contributions of research to modernity, enumerated militating problems, conclusions and recommendations were also made for improvement.

RECOMMENDATIONS

The following recommendations are made for improvement in the areas of research undertaking;

1. There should be organization of frequent workshops, seminars and conferences by the government to lecturers so as to improve in the areas of teaching and learning by getting new strategies and methods of teaching in our classrooms.
2. There should be total commitment to work, fairness, giving quality education to students, value honesty, dedication and trustworthy which brings sustainable development in our society by implementing these positive traits.
3. There should be more commitment to research and development funding culture by our society and institutions of learning.
4. Nigerian government should give attention to educational sector with reference to science and technology by implementing 26 percent of its annual budgetary allocation to education as demanded by UNESCO
5. Emphasis should be put on information Communication and Technology (ICT) right from primary schools to university in that it brings rapid development by expanding our economy, improves teaching and learning and makes our country to be stable.

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