

CURRENT CHALLENGES IN CERAMICS RESEARCH IN NIGERIA AND THE WAY FOWARD FOR NATIONAL DEVELOPMENT

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Abstract

This paper highlights some of the challenges researchers are facing in ceramics profession and education. It involves the current challenges that hinder the development of ceramics for national development. Some of these challenges include lack of choosing a relevant research problem, designing the research work and availability of modern facilities. The way forward for tackling these challenges for the sake of national development has also been discussed.

Introduction

Starting a research is a challenge venture which many students tend to take lightly. One may have the study area and know all the techniques and the statistical knowledge for analysing a research project. The inspiration and the self esteem may be there. Sometimes one is sure of what to do and feel completed to your mind. Yet you spend days, weeks, months and many years without completing the research problem. Some of the reasons include;

- Plan
- Design
- Creativity

Following the basic research planning; sorting, preparation, writing and production procedures, diligence and perseverance. On the other hand, some researchers are greatly challenged with basic research materials and equipment. For example test kilns to be able to conduct researches in the universities in Nigeria.

Research

The greatest challenge of the academic world is to be able to progress very well in academic research output. many in this are fully educated or motivated to adopt a healthy research (Olaofe 2010) interest that will result to a good output for development for the nation.

Research is a planned activity that follows certain procedures in order to achieve a

defined purpose. The expressed objective must be based on identified problem confronting educational theory and practice that the outcome of the research effort will benefit educational planners and practitioners (Anikweze).

Researchers need to consider some of the following to tackle some challenges;

- Skill for efficient research writing with clarity, charm and thoroughness.
- Focusing in development- oriented research output.
- Taking the correct course of action.
- Upholding principles of good research output.

Research is a way of increasing your knowledge and understanding of your subject area besides obtaining a degree. It is also a way of challenging views about a particular topic, modify your options about a topic, sharpen your academic views and outlook. At the end of a research new information must be provided mainly in the area of the research. For example, research handles some related problems in the area of ceramic education. It should also be able to come up with solutions to the area of study for the benefit of the researchers, academicians, communities, societies and the whole world at large.

What does Research entail?

A research involves finding solution to a problem, exploring an idea, probing and issue, accepting or rejecting an assumption, concept, point of view or an argument, by gathering data and using materials beyond our personal institutions and experiences. The result, findings, conclusions and generalisations emanating from such investigations should follow what is referred to as scientific or empirical procedures. These procedures are those stating the problems, building up research questions and hypothetical statements, reviewing and critically synthesizing and acknowledging sources. They also include locating and sampling the data collection area, and collecting data, using standardised research instruments.

Objective analysis of the data brings out concrete and useful findings and draws implications, generalising conclusions, and recommendations from the research findings, recommendation and result emanation for data analysis can be published in reputable scholarly journals of the related fields to be utilized for developmental purposes so that to be read by those could use it for positive development which is one the reason why a research work is conducted (Oloafe 2010), educationally and generally. In general, research may be defined as a logical way of finding solutions to an identified problem (Anikweze 2013) usually for fruitful results in the area of study.

Why conduct Research work?

- For personal interest
- Personal rewards
- For increasing academic horizon
- Developing of your community or nation

Development of your community or nation: your community, nation or the world at large may change far better through research effort. The knowledge a researcher produces may contribute to solve a problem or problems, changing people's live or better in the nation, adding benefit to your work, you social life and others.

Then what does ceramic research entail? As a matter of fact, the ceramic researcher needs to have understand;

- Technical knowledge about the production.
- Principles involved in the process.

- Material properties incorporated in the production process.
- Human resources development (Opoku 2003).
- The federal government recognised ceramics education as a worthy subject to be taught in schools. The Nigerian University system right from inception included ceramic education in the curriculum. The good intention on the part of the government needs to be supplemented by assisting in the acquisition of basic raw materials (Ahuwan 2003).
- The ceramic education should be given to the public to provide education, awareness and patronage.
- Ceramists and designers should stage exhibitions to educate the public especially from the research outcome (Ewule 2004).
- Art/Ceramics can play a meaningful role in the development of children education. It also fulfils a real function in individual and societal needs (Ewule 2004).
- Ceramic education offers hope for developing the country's economy. Unemployment can be reduced in areas where it is possible to establish this industry on a large or medium scale (Ewule 2004).
- Ceramic training in Nigeria surprisingly is still at an infant stage. Reasons for the slow development can be attributed to several factors among which are;
 - i) Lack of adequate funding
 - ii) Inadequate equipment and facilities
 - iii) Lack of or total absence of conducive learning environment
 - vi) Technical assistance
- Tertiary institutions where specific fields of study are undertaken, the curriculum for ceramics should consist of:
 - i) Sourcing and preparation of different clay bodies and glazes from locally available raw materials
 - ii) Technical study of ceramic machine and equipment
 - iii) Advanced studies, practical /special projects
 - vi) Exhibition and evaluation of works

- Human resources are considered the most valuable resources which an organisation utilises.
- Well planned ceramic education curriculum for the training of ceramics in Nigeria for developing national (Fatuyi 2008). Ceramic Association of Nigeria (CerAN) should make presentable forums to present at national Assembly, national Union of Teachers (NUT), National Board for Technical Education (NBTE). Chemistry courses should be made an elective for basic knowledge.

In study of equipment and facilities for teaching of ceramics in some selected universities in northern Nigeria, one of the universities with over 250 students, only two manual potter's wheel and one kiln were available in the studio, yet the university was awarded full accreditation status by the Nigerian Universities Commission (NUC). In such a situation, how can the students learn much on ceramics so as to produce items that will meet the current demand of the contemporary Nigerian (Caucas 2008) for development?

The ceramic equipment and facilities of Ahmadu Bello University, Zaria were imported around 1970 to 1980 by the Federal government. These have served for several researches till date though most of the equipment and facilities are out of use, while others are partially broken. Some are not available. For the betterment of national development, these equipment need to be put in place for immediate use by the current researchers on the field.

Most facilities in Nigerian universities are in a state of despair and obsolesce which lead to some researches to be very difficult. As results, no meaningful could be developed for the national development particularly from the practical area of study. As such the government should see that the relevant equipment is put in place in all the institutions of learning offering ceramic education in the nation. There is need to re-examine our educational programmes and make them relevant to our present socio-economic and political needs (Sani and Ola 2011).

The Nation Nigeria

The nation Nigeria is one of the countries blessed with abundance of natural resources

in the world. As such, researchers should make use of the blessed privilege or opportunity for the development of its people positively. This could be possible by selecting current and valuable research topics.

The major problem with developed or developing nations like Nigeria is the recycling of over beaten research topics. Research activities in these nations are not properly harnessed, documented and utilized. Some are to the library shelves. Library information services are still not efficient enough to inform on all researches that have been done in a particular institution or research centre. As such it is not possible for Ahmadu Bello University for example to know what has been done in university of Nigeria Nsukka, University of Maiduguri. This is because the universities may not have efficient research exchange affiliations.

Some researchers are not undertaking research for development sake. They may only be interested in the degree to be awarded. This, sets back the wheels of development and render the nation underdeveloped. The development of a nation depends on the quality and quantity of output. No nation can develop beyond the quality of its innovative research output. As such our areas should possess certain qualities to be valuable, innovative and development oriented for the nation. The required facility and equipment needs to be rendered to ceramic researchers especially to the concerned for the purposes of successful research output for the nation. This will enhance the development of the people and their nation.

How to Choose Current and Valuable Research Topics

The current research topic needs to relate to the current problem that are faced within the community. So that the problem could be addressed immediately or there after positively for better development and benefits for its people.

The Characteristics of Valuable Topic

- The current nature of the topic
- Addressing issues that are useful and developmental oriented
- Contain key operational words that are researchable; for example, identification, comparison, evaluation, observation, analysis, developmental and others.

- Should be manageable.
- Must interest the researcher
- Should be precise and clear

All of these and other relevant or viable topics need to be looked into by the researcher in order to overcome some of the challenges facing current researchers in ceramics education.

Education

Education is art of importing knowledge, skill, attitude and values to people with the aim of bringing about a positive change in their behaviour. That is the greatest weapon that man has devised for progress and development of the society. Any nation or society that intends to develop must invest in it for the training of prime movers of development i.e. human resources (La'ah and Gwazah 2007). Also education is the key used to ignite the engine of development of any society (Tersoo in La'ah and Gwazah 2007).

Conducting research educationally means to put or follow the educational input in the research work of the researcher by the researcher. That is it has to be conducted academically, intellectually and educationally to lead to the benefit of the researcher's society or community (nation) for development.

Educational research starting in school set up or university which may lead to industrial setup for the development of the nation. The industrial set up could also lead to educational benefit as far as research is concerned. There is a kind of interaction especially in ceramic profession, although it depends on the topic of the research and the researcher conducting the research especially ceramic research.

Ceramics

Ceramic is the mother of all arts (Mamza, 2008). Ceramic is one of the useful arts developed by man. It also contributes in the auto mobile industries by producing spark plugs, cylindrical pipes for transporting water, sewage waste and other liquids, ceramic products are used in everyday life. The importance of ceramics in the industrialization and economic development of any nation cannot be overemphasized (Zauro, 2010) ceramic industries rely heavily on the availability of new materials.

Ceramic products have become enabling inputs and components for other industries.

A good number of industries require ceramic products as in put or components of major machine and equipment in their production line (Mamza, 2010). Without trained research (educational) professionals in the industries, the tendency for inability of proper functionality and continuity in industries may be unavoidable. As such researchers need to investigate and interact educationally in the universities and industrially in the industries for better development of the nation, though challenges of materials and equipment may arise but the researchers need to take courage for better development of its community.

Efforts must be geared towards various studio ceramic industries, a system of information feedback for some researchers in ceramic education. Improvement, although research must be the rule rather than the exception in all the studio ceramic industries (Opoku, 2010).

The industries who are supposed to be the end users of the ceramic (products) design should be ready to work with the designers (researchers) in the field. They should be more panoptic by engaging the nation designers' producers (researchers) rather than foreign ideas (Idowu 2010), so that the research material and outcome may be obtained internally for the benefits of its nation as well as for its developmental purposes.

What are the Current Challenges in the Ceramic Education in the Nation?

The current challenges in the ceramic education are:

- Lack of funds.
- Lack of adequate equipment and facilities for the processing of the available raw materials in the nation.
- Lack of adequate technical manpower.
- Lack of well planned ceramic education curriculum
- Lack of conducive learning environment.
- Lack of places for digging clay, which is the basic raw material for ceramics.

When these challenges and others are put in place, ceramic education may yield meaningful and fruitful contributions for the national development of its nation and world economically. The area of ceramic education is more of practical, which involves more of

participation by the researchers. That's why the required objects need to be put in place for immediate usage for positive results for development.

Way forward

Ceramic researchers especially in the universities need to take research into

consideration for development purposes for the nation rather than self interest by planning of the research area. Equipment need to be provided to the university in the nation by the appropriate sources for developmental researches to be successfully conducted, especially test kilns, which is very vital currently and is also one of the great challenges for some researchers in ceramics education.

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