

RESEARCH AND TECHNOLOGICAL INNOVATIONS IN BUSINESS EDUCATION

EGBRI, Jane Nwakego

Business Education Unit,
Department of Vocational and Technical Education,
Faculty of Education, University of Benin
egbri.jane@yahoo.com

&

OLUFUNWA, Ade Samuel

Department of Business Education
Kaduna State College of Education
Gidan Waya

ABSTRACT

Research is seen as the process of arriving at dependable solutions to problems in society through the planned and systematic collections, analysis and interpretation of data. Through research we are able to understand what we do not know and we are able to extend the frontiers of knowledge which can help in arriving at solutions to our problems and developing our society. Through research, we get to know new things (innovations) and this is also true of business education as a discipline. The paper focused on research and technological innovations in business education. Concept of research and technological innovations, types of research, characteristics of research, needs for research design in business education, data collection and analysis and innovation in business education were thoroughly discussed. The paper recommends that there should be re-orientation of the students in business education who take research as a mere formalities and their teachers (supervisors) should take research work in business education seriously.

Key words: Research, technological innovations and Business education

Introduction

For anyone to graduate in any tertiary institution in Nigeria, he has to carry out a research study in an area of specialization. Very often, the student researchers see their research investigations as mere formalities necessary for only certification. Some other students, apart from this view, are concerned with the grade they can make in the project. Sometimes, for these intentions, many student researchers embark on copying other people's research works even with little or no acknowledgement. Few others tend to remove the name or particulars of a previous researcher and affix their own and submit to their departments for grading. The purposes of all these malpractice are:

- (a) to be able to graduate with others and
- (b) to make an "A" grade in the project (Uzoagulu, 1998).

According to Adeshina (2007), research has held great promise for solving problems that face us and for leading us to a much more satisfying life. In the realm of business, research has resulted in the invention and development of many products that are a part of our daily life.

Concept of business education

Umar (2012) defined business education as that aspect of total education programme that provides knowledge, skills, understanding and attitudes needed to perform in the business world as a producer and/or consumer of goods and services that business offers. Business education is utilitarian hence it is a total programme of education that provides recipients with the understanding and attitudes needed to

effectively and meaningfully perform in the world of business, and capable of revolutionizing the economic and social ways of all stakeholders (Tonne, 1997).

What is Research?

Ibrahim, Laudu and Opadokun (2002), defined research as a method of solving problems through a scientific procedure or an attempt to uncover facts for advancing knowledge. They also see research as a systematic attempt to find acceptable answers to questions or solution to a problem through certain logically designed procedures or steps. Also, Aliyu (2006) sees “research as the manner in which we solve knotty problems in our attempt to push back the frontiers of human ignorance”. He went further that research is ultimately a way of thinking. It is a way of looking at accumulated facts so that a collection of data speaks to the mind of the researcher. Adeshina (2007) defined research as an attempt of man to seek out the truth in a manner superior to accepting beliefs, knowledge, or practices passed down to him for unquestioning acceptance as tradition.

Furthermore, Akanbi (2002) defined research as the process of arriving at a dependable solution to a problem through planned and systematic collection, analysis and interpretation of data. Research is also seen as the application of scientific method to the study of a problem. It is such a planned search for undiscovered information or materials to fill identified gaps of knowledge. From the definitions above, one can say that research is aimed at finding a solution to a problem, providing additional knowledge or information and finding the conditions under which a certain phenomenon occurs. Innovation according to Hornby (2006), is the introduction of new things, ideas or ways of doing something. Innovation in business education deals with new trends or happenings in business education especially in this era of advancement in technology. It deals with new ideas and ways of doing things in business education.

Characteristics of Research

According to Aliyu (2006), characteristics of research can be summarised thus:

- (a) Research begins with a questioning mind of the researcher i.e. you look around you, consider the unresolved situation which evoke the questions: “why?” what is the cause of that?” “What does it all mean?”
Research demands the identification of a problem, stated in a clear, unambiguous terms i.e. successful research begins with a clear simple statement of the problem that the researchers seeks to resolve.
- (b) Research requires a plan i.e. there must be an aggressive plan which leads to the right direction.
- (c) Research deals with the main problem through appropriate sub-problems. The first step in planning research is to inspect the main problem for research in terms of its appropriate sub-problems.
- (d) Research seeks direction through appropriate hypotheses and is based upon obvious assumptions.
- (e) Research deals with facts and their meanings. A good research must sooner or later arrive at the point where the fact must be meaningful and that takes place within the mind of the researcher.
- (f) Research is circular.

What research is not

Osuala (2005) opined that research does not include the routine activities of applying what is already known or of teaching in the usual sense of the word. Research is reserved for activities designed to discover facts and relationship that will make knowledge more effective. Frequently, an individual who looks up a word in the dictionary or a historical fact in the encyclopaedia claims he “researches” it. Other persons who support to do research merely engaged in nothing more than fact-finding.

Types of research

The classification of research can be based on the discipline as the case with education and scientific research. Most research can be classified into the following:

- (a) Basic research: - This research has its purpose as the discovery or verification of fundamental principles or truths.
- (b) Applied research: - It involves testing theories in a given environment. Thus in the field of business education research studies have attempted to determine whether the functional or the traditional method of teaching shorthand produced the best shorthand writers and whether emphasizing speed even at the expense of accuracy in the early stages of typewriting learning produced better typists.
- (c) Action research: - This attempt to solve particular problem and is not undertaken to build up an organized body of generalized knowledge.
- (d) Experimental research: - Is carried out to determine causes of certain conditions or phenomena or at least to permit the researcher to make casual inferences.
- (e) Descriptive research: - This type of research is concerned with the collection of data for the purpose of decertifying and interpreting existing conditions, common practices, beliefs, attitudes, on-going processes etc. It describes events and situations as they appear visible to the research. (Aliyu, 2006).

Need for research in business education

Aliyu (2006) and Adeshina (2007) asserted that the need for research in business education equated the need for research in any field or discipline. Without a constant stream of research being initiated and completed, old and perhaps outworn practices, procedures, techniques and subject matter are adhered to, and little educational advancement is made. Indeed, unless new innovations and better practices based on the latest research are implemented the quality of learning actually declines.

Research in business education is not given prominence in Nigeria today. In business education, except the researches undertaken in our tertiary institutions, no research is initiated or sponsored by the government either at the state or federal levels. Any researches carried out in any higher institution are merely used for academic exercise; and the documents are dumped and forgotten and the effort of the researchers ends up in vain.

Research designing in Business Education

Research design is mainly concerned about laying a strong foundation and also ensuring that the foundation or structure is well placed so that the researcher will not bring into his effort a lot of inadequacies. As long as there are inadequacies in research process, it will be that he has not set a good foundation. Alternatively, the structure may be strong but the arrangement and procedure could be wrong (Akanbi, 2002). Ideally, when thinking about research design, generally the investigator should be able to answer clearly what to do, what he should be careful about, what he should ignore and even control. Research design is a blue print of the research form. If the design is poorly conceived, structurally, the product will be faulty. On the other hand, if it is well conceived structurally, the end product has a greater chance of being worthy of serious scientific attention.

Aliyu (2006) opined that, in designing research in business education, we should accept the fact that as the word of business changes rapidly, research is constantly needed as a basis for determining not only how we shall teach but also what we shall teach. The needs for youth, particularly in this period of increased automation of office and store operations must be met. Surveys and follow-up studies students placed on the job assist the school to keep its work up to date and to meet the needs of those going into the world of business.

Data collection in Business Education research

In the process of investigation a researcher will have to collect data based on the instruments used. When data are collected they are to be put together in an orderly manner. The collector could be the researcher or his assistants. Where data is large, it may have been done by the researcher or his assistants. It is essential that data collected must be put together, arranged and summarized in order to be used for the purpose it was collected.

The term data is plural, therefore, they are those facts that any particular situation affords to an observer. They are manifestations of the trash rather than the trash itself. Types of data collection instruments for research can be obtained from variety of sources. The sources are categorized into primary and secondary sources. Primary sources are data collected by researchers for specific purpose. For example, questionnaire structured to sample opinion or ideas of business education teachers is regarded as primary data. Secondary sources are data obtained from records and already prepared materials such as government documents, journals and business directories are developed for some purposes but they serve as sources of existing information for some research. Data collecting tools are grouped as follows, questionnaire, interview, observation and others.

Data analysis in Business Education research

After instrument had been administered and data collected, then comes in data analysis. The researcher decides how the data should be processed and the result presented in tables, figures, graphs, etc and each explained accordingly. The data is presented in terms of the problem the researcher has collected and put together the mass of data. These would then be certified, arranged and separated into segments each of which corresponded to a particular section of the problem which was being studied. The data should be presented completely.

It is very important and necessary to interpret the data presented. Some researchers feel that having presented their data (facts and figures) they have done all that needs to be done. This is self-delusion and a misconception of the research process. It is nothing but just a mere compilation of information. Displaying of data is certainly important but the interpretation of data is much more important in research. The interpretation should end up with summary, conclusion and recommendations. There should be final research report and if this is not well written and the findings not disseminated properly to those who can best make use of them, the research is of relatively little value, except to the researcher himself. The specific form of the report may vary in details, however, the basic parts of any research report are essentially the same (Akanbi 2002; Ibrahim, Laudu and Opadokun 2002; Aliyu 2006).

Needed Research in Business Education

Adeshina (2007) asserted that the following are the needed research in business education:

1. Economic education and basic business
2. surveys in business education
3. curriculum development in business education
4. evaluation in business education
5. methods of teaching procedures in business education
6. guidance and personnel in business education
7. teaching materials in business education
8. business teacher preparation and certification
9. Test, measurements, and research techniques in business education
10. History of business education
11. Information and Communication Technology (ICT) and business education.

Technological Innovations in Business Education Research

Aliyu (2006) opined that the transition from manual (traditional) process to mechanised and electronic system is the essence of the current revolution going on in the office. That the traditional system is slow, wasteful, energy consuming and very unreliable while the mechanised and electronic system reduces labour cost, less human personnel and increases output. Olarinoye (2006) noted that these innovations (ICT applications) are affecting all aspects of life and can support sustainable development in the fields of business education. For business education teachers to live and contribute effectively to the development of the society, they need to be exposed to technological innovations and a quality education.

Some of these technological innovations in business education have opened new vistas of possibilities hitherto unheard off in almost all spheres of human endeavour. It is now easy to access all

sort of information from all over the world, making the world to become what is today commonly called a global village.

The technological innovations in business education are as follows:

(a) **Computers and word processors:**

Business education students are exposed to word processing in which they use seldomly for assignments, term papers and sometimes, for their semester examinations. It is very imperative that everyone need to become familiar with data processing and computing particularly micro-computing whether in the home, office, school or factory because micro-computing is now widely accepted as a very efficient device for performing in any types of operation such as display of business and other information, for performing computation of varying types at high speed such as word processing in typing and secretarial departments. Computer is recognized as a means of increasing administrative efficiency in pay roll processing, sales invoicing, stock control, production planning, insurance renewal notice, etc, for example usually printed by computer.

(b) **The Internet:**

Through the internet both teachers and students in business education are able to down load necessary materials for their uses. Internet is a global collection of many different types of computers and computer networks that are interconnected together. It is a worldwide broadcast medium, a mechanism for disseminating information. It is also a medium for collaborative interaction between individuals and their computers without regards to a geographical location (Howe, 2006). It is basically made up of a large group of computers that are interconnected to communicate with each other. Each of the computers connected to this large network is capable of accessing information stored in any of the other computers. Today, the Internet links millions of computers from all over the world, enabling them to share information and various resources (Rutkowski, 1998).

(c) **Electronic mail (E-mail):**

In some institutions, teachers in business education give their students term papers and assignments through email and expected them to submit their answers through his e-mail. Electronic mail is more than just inter-personal messaging. Companies around the world are taking advantage of e-mail application to enhance the way they do business. Now messages can be transmitted as a fraction of normal cost (Bhatia, 2003). Electronic mail is a way of communicating person to person via computer. A message is a form of letter or memo typed into a computer which is sent from one person to another through telephone and stored until the receiver asks for it. The e-mail system provides each user with an electronic mail box from where he can search for his mail using personal computer (PC) and a device called modem.

(d) **Teleconferencing:**

Here users converse with others in real time speaking through their keyboards and hearing through the screen. Depending on the type of software used, group of users from vividly dispensed geographical locations may be linked together.

(e) **Voice recognition by computers (VRC):**

Voice recognition by computers is a type of computer that is capable of recognizing human voice into sensible form. The machine could cut off the need for the boarding. Its full application will enable managers to dictate straight into a machine, thus eliminating the shorthand or audio typists as his words will appear on the screen, although the machine is not widely used yet.

(f) e-office (Paperless office)

A paperless office is automated office where the computer is employed in carrying out general office work. It is an electronic equivalent of the typical manual office. Instead of the heaps of files, which are consulted very often to retrieve information and the volumes of papers are sent here and there, the PCs, fax machines, e-mail and the Internet have brought about the envisioned electronic office.

(g) Electronic spread sheet:

Business education students use electronic spread sheet in computing and solving secretarial and accounting problems. The amount of data that is being processed in a typical business environment is often very large such that it is very tedious for personnel to engage in manual operation. Some of these processes that involve data laid out in a "rows and columns" format such as accounting books, data sheets, log books, etc can be solved using electronic spreadsheet applications.

(h) Intranet:

This is small version of the net that is used within an office. It is an ideal system for distributing information such as phone/product listings and job openings.

(i) Extranet:

An extranet is an organization's or a company's intranet that extends to authorized users outside the company. It is used to facilitate communications among the company's suppliers or customers. An example might be an airline that would allow travellers and their companions to access flight information for on-time arrivals or delays for specific flights. (eNotes .com (2012)

(j) Computerized Records Management

Record management involves managing and controlling office information. Typical applications include maintaining a records center, tracking active and inactive records, making note of vital records, creating archives or historical records, and developing a record retention schedule.

(k) Multimedia:

Multimedia integrates text, graphics, animation, audio, and video. Multimedia applications are used for business and education in the office environment. Marketing presentations are developed to advertise and sell products using multimedia. Using a computer, a video project, and a display screen, presentations can be made to large and small audiences. Interactive advertisements as well as job applications and training applications can be published on the Internet or in kiosk displays. All the above technologies and many more are useful for research in one way or the other as they facilitate information gathering, Processing, storage, and retrieval that could enhance process in business.

Conclusion

Through research new things are discovered and therefore, business education students should see research in their discipline as an opportunity to widen their knowledge and not mere formalities necessary for only certification or the grade they will obtain. Also, since we are in technology age, business education teachers and students should be up-to-date in order to keep abreast of new development or innovations in their area (discipline) so that they can still be relevant after graduation in the world of work.

Recommendations

Business education teachers should be allowed to attend local and national conferences, seminars, workshops in order to upgrade their knowledge and skills especially in the areas of innovations and research in business education.

- Government should provide all the necessary gadgets and equipment in line with this innovation for effective teaching and learning to take place so that both the business education teachers and students can have access and manipulate the equipment effectively.

- There should be re-orientation of the students in business education who see research as a mere formalities and their teachers (supervisors) should take the research work serious.
- Students in business education should be encouraged to carry out relevant research work in their area of specialization and the result should be utilized to boost business education programme.
- Government either at the state or federal levels should endeavour to sponsor research projects in business education that could bring about national development in the country.

References

- Adeshina, T.J. (2007). *Understanding business education*, Zaria: ESONAJ Publishers.
- Akanbi, A.A. (2002). *Research Methods for Business Students, 2nded*; Kano: Bolade Press and Publishers.
- Aliyu, M.M. (2006). *Business education in Nigeria: Trends and Issues, Revised ed*; Ilorin: Goshen Print Media Limited.
- Bhatia, R.C. (2003). *Office Management and Commercial Correspondence*, Revised and Enlarged ed; News Delhi: Sterling Publishers Private Limited.
- eNotes.com(2013). *Office Technology Study Guide & Homework Help*. Retrieved 5th July, 2013.
- Hornby, A. S. (2005). *Oxford Advanced Learner's Dictionary of Current English*. Oxford University Press.
- Howe, W. (2006). A Brief History of the Internet <http://www.walthome.comm/i/rntree.htm/>
- Ibrahim, A.I. Landu, B.V. and Opadokun, O.A. (2002). *Introduction to Educational Research Method*. Ilorin: Tajudeen Printing Press and Computer Centre.
- Olarinoye, R.D. (2006). National ICT Skills Acquisition Summits and Campaigns for Registered Teachers at all Levels of the Education System in Nigeria. Being a Keynote address at the National Workshop on ICT for Registered Teachers in Borno, Yobe and Bauchi States.
- Osuala, E.C. (2005). *Introduction to Research Methodology: the Millennium Edition*, Enugu; Cheston Agency Ltd.
- Rutkowski, A.M. (1998). Internet: Microsoft Encarta 1998 Electronic Encyclopaedia: Microsoft Corporation.
- Tonne, H.A. (1997). *Principles of Business Education*. New York: McGraw-HillBook Company Inc.
- Umar R.T. (2012). Attitudes of Business Education Students Towards Teaching Profession. *Journal of vocational business education* 1 (1), 74
- Uzoagulu, A.E. (1998). *Practical Guide to Writing Research Project Report in Tertiary Institutions*, Enugu: John Jacob's Classic Publishers Ltd.