

THE IMPACT OF COMPUTER EDUCATION ON NATIONAL DEVELOPMENT

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Abstract

This paper made an attempt to highlight the current trends in computer usage. The paper also examined the National Policy on Education to identify the areas where computer education can play roles in helping to achieve the developmental goals of this policy. The concept of development was also looked at to find out the developmental indices which computer education can promote. In assessing the impact of computer education, Computer Education was defined as the abilities to identify and operate the software and hardware of a computer so as to achieve a desired goal. The impact of computer on production of food, job, equity education and environmental management were examined. In conclusion, it was suggested that government should encourage her ministries to develop Enterprise Resource Systems that solves organizational problems.

Introduction

One of the greatest human achievements of the 20th century was the computer. It has become a dependable tool in the quest for human and national development to the extent that in the developed countries, you hardly can do anything without the involvement of the computer. In developing countries like Nigeria, we are increasingly becoming dependent on computers. We are now depending on computer for simple and complex calculations, we no longer use biro and paper to typeset or draw images, we are now less dependent on postal mail delivery system etc. All these are possible because of the development of the computer.

This trend in the use of computer was supported by Femi (1996) when he asserted that the use of computer has permeated every facet of human endeavour that its area of application covers practically everything man does including agriculture, aviation, research and industries.

From the ongoing discussion, it is clear that computer has become an indispensable factor in the developmental equation. Therefore, any nation that wants development in today's world should start by providing computer education to her citizens.

The National Policy on Education

Education has been defined as the process of learning to live as a useful and acceptable member of the community to which one belongs and any other community in which one may find himself, (Bello, 1991). This definition identifies education as a medium through which man achieves personal and social development both in his environment and beyond.

Hence, the National Policy on Education (1981) identified five objectives in order to help Nigeria achieve national development. These objectives are the building of:

- (a) A free and democratic society;
- (b) A just and egalitarian society;
- (c) A united, strong and self reliant nation;
- (d) A great and dynamic economy; and
- (e) A land of bright and full opportunities for all citizens.

All other aspects of the Nigerian educational system -Computer Education inclusive - are geared towards attaining those five objectives. How relevant are these objectives to national development? Nwana (1998), provided an answer to this question when he sort to explain the five objectives in plain language; thus:

- (a) A free society is one, which individuals can associate with who so ever they like unhampered by others, and in which the country does not operate under the authority of another country or persons outside its geographical and administrative boundaries.
- (b) A democratic society is one in which governance is provided by the people for their own benefit and on their own terms. Consultation, consensus, and participation are, amongst

- others, essentials of democratic living.
- (c) A just society is one in which the rule of law operates and in which laws are freely made for their well being.
 - (d) An egalitarian society is one in which all persons are regarded as equal and regarded as such irrespective of their origin, gender, religion, tribe, language, etc.
 - (e) A united nation is one in which all sections and components parts identify with the same goals and see themselves as one, caring for each other and living together.
 - (f) A strong nation is one that can physically and effectively defend its borders, citizens and interests against internal and external aggression wherever they may be.
 - (g) A self - reliant nation is one, which solves its development problems using human and material resources predominantly sourced from within its borders.
 - (h) A great and dynamic economy is one, which is production oriented and which freely exchanges its products and services with the outside world with a reasonable margin of profit or trade balance.
 - (i) A land of bright and full opportunities is one in which the individuals and groups are allowed to pursue their legitimate productive goals and encouraged to do so without hindrance by the organs of the state.

The answer to this question also provides clues to relevant areas where computer education can make an impact to national development.

The Concept of Development

Banji (1997), defined development as the utilization and exploitation of resources (human and material) to improve the lot of members of a community, solving their most prominent problems-economic, social, political, environmental etc - without creating, deliberately, new problem situations. Noah (1995) in his own submission defined development as having to do with the realization of the potentials of human personality, social integration and collective newness. He went further to say that the factors that embrace this realization include getting food, jobs, equity education, freedom of speech and genuine political and economic independence.

Impact of Computer Education on National Development

Computer education is the learning of skills to identify and operate the software and hardware of a Computer so as to achieve a desired goal, (Abimbade, 1996). The revolutions in computer technology have made computers an invaluable tool in the development of most nations of the world. As a result of this realization, Nigeria has introduced computer education into its secondary and tertiary education curriculum in order to train her citizens on the need and ways of harnessing the potentials of this machine.

To achieve this goal, the National Policy on Computer education was drawn, with the following objectives to:

- a. Catch up with the rest of the world.
- b. Be ready to enter the 21st century of high technology where computer will undoubtedly be at the centre of it all, as the sophisticated and most enabling tool.
- c. Be able to land on jobs demanding computer knowledge.
- d. Enhance operational efficiency and management, and to open an almost infinite scope for human endeavour; and
- e. Above all to regulate the proliferation of microcomputer and its integration within the education system, (Abimbade, 1996).

The abysmal level of our developmental attainment in the 20th century can be attributed to our lagging behind in the provision of computer education and infrastructure to our citizens. As a result, we recorded poor result in the execution of our developmental policies because we relied mostly on the manual method of monitoring the execution of these policies (author's observation). However, the vigorous pursuance of computer education in this 21st century may deliver us from the underdevelopment predicament.

A nation with a computer literate population, will witness a tremendous improvement in those areas

of developmental indices earlier identified in the National Policy of Education, National Policy on Computer Education and definition of development.

Impact of Computer on Food Production

Though computers do not go into farm to do the farming, their use in the area of agricultural research, crop storage and distribution management, have improved the production and availability of food to the populace. Presently, we hear and consume genetically modified foods (GM foods) that have flooded our markets in the guise of imported foods. These are foods that were mass-produced by modifying the genetic components of crops and livestock to increase their yield and make them resistant to pests and diseases. This was possible as a result of using computer to decode the genetic components of these crops and animals. Computers are then used to sequence these genetic codes to achieve the desired species of these products. So if our agriculturists acquire sound computer education, we can also benefit from these research practices and have enough food to eat and export to other countries.

Impact of Computer on Job Provision

A nation with the majority of its population unemployed can never be termed developed. However, the availability of jobs in Nigeria today have a correlation with computer literacy, as you hardly find any jobs advert that does not state that knowledge of so and so computer package is an added advantage thereby telling those without computer knowledge to think twice before applying for such jobs. This underscores the importance of computer education to the national development. Also, the acquisition of computer literacy has increased the number of self-employed people.

This is evident on the number of computer centres dotting every part of our urban centres. This trend has a positive multiplier effect on the national economy as it increases our Gross Domestic Product (GDP) and also provides employment to other unemployed people.

Impact of Computer on Equity Education

One of the developmental aspirations of this nation is to provide quality and equitable education to its populace. Many approaches like the quota system, increase in the number of universities etc., have been taken to realize this aim but these approaches fall short of helping us realize these aspirations as they introduced new problems of reduced quality of university education and low funding of university education. However, with the increasing popularity of Information Technology, we are set to witness the use of computer via Internet and E-mail in the delivery of materials for distance education through the National Open University (NOU), to the populace who cannot be accommodated in the already choking and deteriorating universities. This development has the potential to greatly reduce the cost of building new university campuses and maintaining oversized staff and also provide equitable and quality education. This is because instructional materials are centrally prepared with uniform standard and then accessed through electronic means from all over the country devoid of quota or regional sentiments.

Impact of Computer In Managing Environmental and National Disasters

In this area, computers have been used by developed and developing countries like America, Kenya and the Philippines, to collect and assist the population with meteorological information on the possibility of thunderstorm approach, earthquakes, draughts, floods etc. In Nigeria, dangerous consequences of such natural disasters could also be averted by utilizing computer, thereby saving the nation billions of Naira that would have been lost in the event of such natural disasters.

Conclusion

From the discussion so far, it is clear that the provision of computer education to the Nigerian population through our school system will turn around the fortunes of the country's development for the better. To effectively feel the impact of computer education on national development it is recommended that government should encourage its ministries to collaborate with educational institutions to find ways to advance from their current trend of awarding and re-awarding the contract for purchase of marginal computer equipment at high cost, to the development of Enterprise Resources System that aims at solving complex organizational problem, instead of using the computer for only secretarial jobs as is the practice in most ministries.

References

- Abimbade, A. (1996) Computer Literacy and the Nigerian School System. *Nigerian Journal of Computer literacy*. 1(1): 1-9.
- Banji, .K. (1997) Historical Perspective of Education for National Development in Nigeria. *Journal of Education for National Development and International Co-operation*, 1, (1): 51-61.
- Bello, J.Y. (1991) *An Introduction to Educational Philosophy*. Ilorin: Femac Press. Federal
- Republic of Nigeria (1981), *National Policy on Education*. Lagos: NERC Press.
- Femi. E, (1996), Computer Literacy for National Development. *Nigerian Journal of Computer literacy*. 1(1): 10-13.
- Nwana, O. C. (1998) Relevance of the Aims and Objectives of Nigerian Education to National Development. *Vision and Mission of Education in Nigeria - The Challenges of the 21st Century*: 14-16
- Noah, A.O.K (1995) *Themes In Educational Foundations*. Lagos: Gene Concept Publications.