Higher Education And Youth Preparation For Work

and

Leadership in Sub-Saharan Africa

Edited By
JOEL BABALOLA
ADAMS ONUKA
ABESOLU ONI

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JOEL BABALOLA
ADAMS ONUKA
ADESOJI ONI

Publication of

Higher Education Research and Policy Network (HERPNET)
editor@herpnet.com or
adamonuka@yahoo.com

ISBN: 978 – 978 – 50443 – 0 - 0

HIS LINEAGE PUBLISHING HOUSE
26, Okunmade Street, Mokola Ibadan,
Oyo State, Nigeria.
GSM: 08033596818
E-mail: awemakin@yahoo.com

HIGHER EDUCATION AND GLOBAL FLOW OF INFORMATION AND IDEAS AMONG YOUTHS

S. A.Bello & Ngozi Uzoka
Department of Educational Administration
Faculty of Education University of Lagos
Akoka, Lagos

Abstract

The literature devoted to technology and education is replete with claims regarding the importance of ICT to society and to the future development prospects. But the real significance of this for educational management has yet to be seen within the literature. The educational management literature is beginning to indicate that attitudes towards ICT are likely to have a major impact upon ICT and school management. Thus, this study investigated Higher education and global flow of information and ideas among youths. The study was aimed at determining the use of information communication technology, ICT for the improvement of education. ICT application in management should not strike higher education institutions as a radically new idea; implementing ICT management practices wisely is a lesson that the smartest organisations in the skill-oriented corporate world, especially the universities and colleges should take.

Introduction

Information and communication technology (ICT) is today one of the most rapidly growing fields of education and training. As a force contributing to technological development, ICT is fast becoming an accepted and indispensable part of the mainstream of educational systems in all countries of the world, and Nigeria is not an exception. ICT is a term used to describe the convergence of multi-media facilities, which are used to transmit, record, generate, retrieve knowledge and data as well as to impart knowledge.

Information and communication technology (ICT) in management is a new field, and experiments with it are just beginning in higher education in Nigeria. The higher education sector as a skill-

oriented sector should therefore be replete with examples of institutions that leverage knowledge to spur innovation, improve customer service or achieve operational excellence. In the past few years, the experience of schools in using information and communication technology (ICT) as part of their everyday practice has gradually been disseminated.

ICT include radio, television satellite, fixed and mobile telephone, fax, computer CD-ROMS and the internet, which as used by the ICTS can be divided into two groups: traditional or old ICTs (namely radio, and television) and the new ICTs namely the internet and telecommunication. Learning through new ICTs is also called e-learning in relation to global, economic, social and technological development.

The globalisation agents have made ICTs to become within a very short time one of the basic building blocks of modern society and an understanding of ICTs as part of the care of education, alongside reading, writing and numeracy. Consequently, in trying to find out its potency in terms of the role of the management of schools, the study interestingly revealed that ICT could play a number of roles in improving management functions. This may include the planning, organising, controlling and evaluating functions as they occur in the management process. This process to some extent requires reliable, timely and user friendly data.

ICT can be valuable for storing and analysing data on education indicators, student assessments, educational, physical and human infrastructure costs and finance (Haddad and Jurich, 2005). ICTs can help administrators and principals to streamline operations, monitor performance and improve the use of physical and human resources. They also can promote communication between schools, parents, central decision-makers and the job market, thus fostering accountability, public support and connectivity with the labour market. It therefore follows that ICT can provide valuable support in personnel/human resource management, student administration, finances, assets and maintenance, communication and office automation (Lucey, 2005).

ICT as an effective teaching-learning approach must stimulate intellectual curiosity and offer a sense of enjoyment that will move a student from the passive role of recipients of information to the active

role of builders of knowledge. ICTs are effective instructional aids that can engage students in learning.

The transmission of accumulated knowledge to the new generation is an essential component of the educational process. This includes basic skills and information that are foundations of more complex knowledge. It would be inefficient to use a time-consuming process like inquiry and exploration. Haddad and Jurich (2005) suggest the use of computer-aided instruction (CAI) which has been proved to be very effective for basic skill instruction. The computer has some attributes that make it a powerful aid for drills and practice, having a large memory speed and capacity to repeat the same task infinite number of times without reducing performance efficiciency.

Despite this potential and roles of ICT in school management, a number of challenging factors were found to be obvious from the research. Closely linked to organisational and technical sustainability in school management is the issue of ICT financing and insufficient insight about ICT costs which tended to be a problem in ICT expansion and assets acquisition in schools. Research conducted by Akomolafe (2005) indicates that computer science as a subject is available in only few schools, especially in the rural locations, and this perhaps, may not be unconnected with the fact that ower is needed in most ICTS operations, which to a great extent is lacking in the most rural areas.

Another area of key concern is the issue of training and re-training of teachers and administrators for the ICT programme management. Globalisation, creativity and collaboration are key words in the modern workplace like the school, where students, teachers and administrators are expected to share knowledge and work together towards a common goal. There is need to use ICT tools for the training and support of teachers to ensure that they are up to date and more familiar with the technology and new pedagogical strategies. Haddad and Jurich (2005) were of the opinion that more teachers be trained in ICTs to replace an increasingly ageing workforce.

There is also the need to carry out a proper needs-assessment of ICT management in schools. Beebe (2004) explained that needs assessment in ICT has to do with evaluating and establishing the relevant ICT that is intended to improve the management of higher institutions. It also calls for constant monitoring and evaluation so as to be abreast of ICT changes. The implications are that change agents like

the administrators, teachers and students should participate to a v great extent in the change-related initiatives occasioned by knowledge driven society.

There must be definite policy statements in which peo would be made willing to embrace the changes and shift in knowle because an ICT programme requires sound policies that would lea an understanding of the role of ICTs in school management, especi in the technical school, which is regarded as a place for dropouts failures of the grammar type schools.

Given the critical role of ICT in this globalisation era, ther need to sensitise and reposition all stakeholders of education participate in the global knowledge driven economy.

ICT Models in the Management of Higher Education

ICT models have evolved from classroom replication towards mo that integrate administrative and pedagogical issues. While the ICT models emphasised the role of the technology in providing con (information), deliver (access) and electronic services, more re models focus on issues such as online administration perso management, instructional design and the creation of online lear communities. In the growth and experimentation phase of ICT in 1990s, universities, public and corporate institutions incited technology learning management system vendors, based their initiatives on an ICT model comprising three elements - Service to customer (learner), Content and Technology. Owing to the continu IT developments, the focus was primarily on the use of technolog create convenient virtual learning environments for learners to ac knowledge anywhere, any time. The learning design co development and the training of educators and technology ven assumed that the delivery of traditionally learning content via internet constituted ICT.

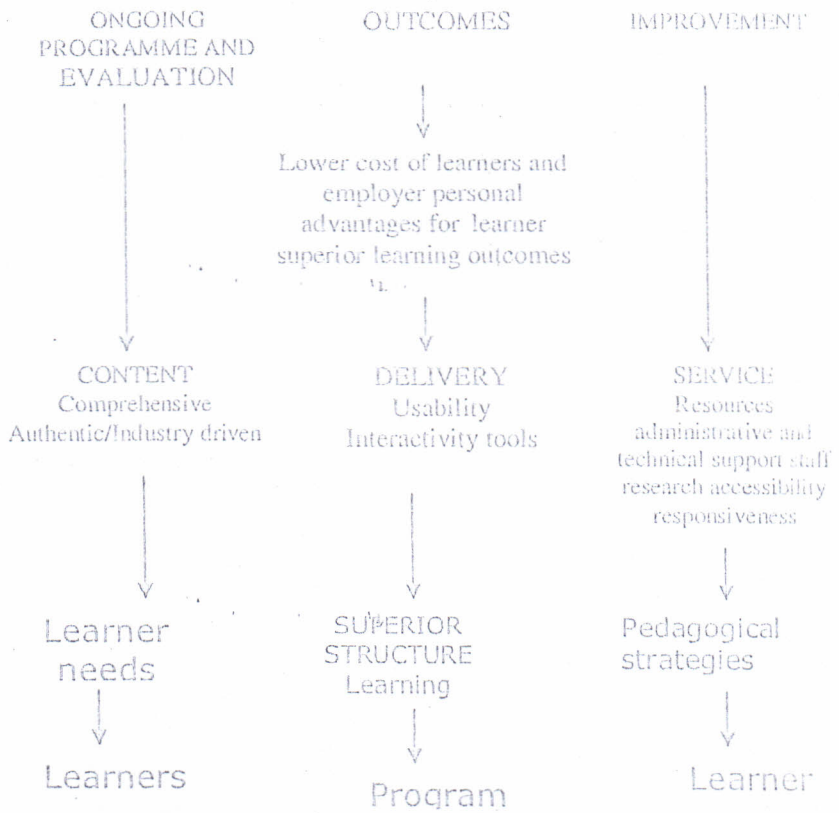
The Demand-Driven Model

The demand-driven model was developed in the Chilean sc collaborative effort between academics and experts from private public industries, Schiefelbein (1974).

Although this model is based on the technology learning management system vendors model of technology, content and service, the technology is seen as a support or a tool to achieve the desired management practices and learning outcomes in a cost- effective way. The primary purpose of the model is to encourage academics to take a proactive role in the development and use of technology in the teaching process.

According to Richard (1975) it emphasises that the three consumer demands: high quality content, delivery and service content should be comprehensive, authentic and well researched. Delivery is web- based and the interface of ICT programmes should be user-friendly with communication tools to support interactivity. Service should include the provision of resources needed for learning as well as any administrative support needed.

Figure I: The Demand-Driven Learning Model (Macdonald Et Al 2001:19)



Source: Schiefelbein, E and Davis, R.GS (1974)

The Demand-Driven Learning Model: a Framework for Web-based Learning.

Technology is fundamental to ICT, this model provides a valuable framework for understanding the importance of investing in ICT infrastructure to support contents, delivery and service. However, this model also highlights the importance of realising the changing needs of learners and their employers, and the pedagogical changes that must be made to content and services to meet these needs.

Instructional Models

One of the most crucial pre-requisites for successful implementation of ICT is the need for a careful consideration of the underlying pedagogy, or how learning takes place online. Clagger (1984) defines effective ICT as "... the integration of instructional practices and internet capability to direct a learner towards a specified level of proficiency in a specified competency". According to Cliffon (1981), instructional value is added by:

- Customising content to the needs of the learners
- Presenting outcome-based learning objectives
- Logically sequencing material to reinforce those objectives
- Basing navigational options (hypertext links) on existing and desired skills and knowledge of the learner.
- Designing objective-based, interactive learning activities that learners must complete to receive some form of evaluation.

Instructional design models for ICT based on the processes of designing, developing and delivering curriculum material are usually closely aligned with traditional classroom learning models that specify some combination of planning and implementing. The internet is fast becoming an everyday tool for business and entertainment, using the internet for teaching and learning is becoming a normal extension of the classroom. The internet as an education tool offers a global open platform for information storage and display in text, graphic, audio and video format, as well as communication tools for synchronous and

asynchronous interactions. (UNESCO 2002) identified the institution, implementation pedagogy and technology as the key components for developing ICT materials. Alexander (2001:240) concludes that successful ICT takes place within a complex system involving the administration environment, library facilities, ICT infrastructure, students' experience of learning, teachers strategies, planning and thinking, and the teaching/ learning context: However, this author also emphasises the following issues.

1. Needs analysis that will investigate the following:
   - Demand for policies to guide ICT planning
   - ICT infrastructures for instruction in the specific subjects
   - Demand and need for an online course
   - Equivalence of an online course with face to face programmes
   - Costs of ICT infrastructure

2. Students profiles that will identify their needs and expectation as follows:
   - Age, gender, culture and work experience
   - Prior knowledge
   - Prior experience with ICT
   - Goals and motivation
   - Attitude towards ICT
   - Learning patterns and styles
   - Computer literacy
   - Access to computers and the requisite interest
   - Affordability of ICT

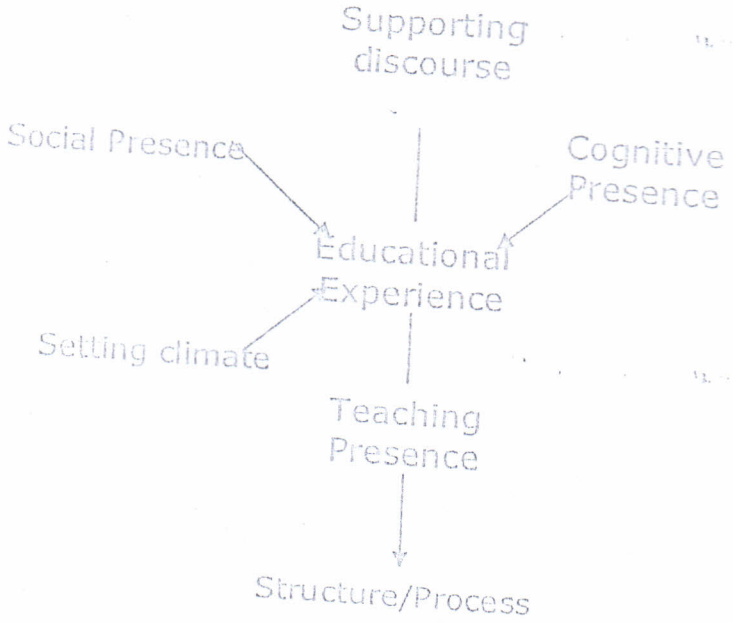
3. Institutional support for ICT initiatives investigate the following:
   - The vision and mission of the institution
   - Life-long learning as a goal of the institution
   - Implementation costs and sustainability
   - Training for the lecturers
   - Technological infrastructure
   - Hardware and software and staff training in the systems and equipment

4. Pedagogical choices that meet the requirements of the subject and the needs of the target learner group:
   - Learning models (constructivism versus behaviorism)
   - Learning objectives
   - Delivery methods
   - Assessment and interaction
   - Development strategy: using individually available web tools (e-mail, discussion groups and chat software) or an integrated course delivery software package such as a Website or blackboard.

Learning Communities Model

Interaction in all its forms (between and among learners, learners and educators, learner and information or content) is an essential component in the learning process. ICT has the capacity to support interaction as "the true simultaneous intimacy and distance; multi representation. Learners are able to assume control and directly influence outcomes".

FIGURE 2: COMMUNITY OF INQUIRY MODEL



Communication media

Source: Garrison, D.R. & Anderson T. 2003 ICT in the 21st century: a framework for research and practice London: Routedge Falmer.

According to Garrison & Anderson (2003), the community of inquiry model has three key elements that must be considered when planning and deliverihg an ICT experience. They are:

Cognitive presence, Social presence and Teaching presence.

Cognitive Presence

The authors see cognitive presence as the extent to which learners are able to construct and confirm meaning through sustained reflection and discourse in a critical community of inquiry. In essence, cognitive presence is a condition of higher-order thinking and learning social presence.

Social Presence

Social presence is defined as the ability to participate in a community of inquiry to project themselves socially and emotionally as "real" people (i.e their full personality). Through the medium of communication being used, in this sense, the availability of ICT for e-mail on line registration as enquiries and for students' academic records becomes very important.

Teaching Presence

Teaching presence is defined as the design facilitation and direction of cognitive and social processes for the process of realising personally meaningful and educationally worthwhile learning outcomes. While this model may seem realistic, the issue of interaction on the learning process has to be addressed through the identification of the ICT integration needs of the institution.

Conclusion

The fact remains that tertiary institutions can no longer ignore ICT and computers as the internet has become an integral part of higher education, how effectively these educational tools will be used to enhance the learning process depends on building an ICT strategy that not only optimises the use of technology to create convenience for learners but also addresses important pedagogical issues in the information age. It thus becomes imperative that tertiary institutions in Nigeria cannot afford to fail in these tasks because there will be no other options for the survival of the African nations. Therefore, a knowledge based millennium propelled by ICT is a task that must be done without further delay.

Recommendations

Based on the foregoing discussion, the following recommendations are hereby suggested for the management of tertiary institutions:

1. Every institution must have a web portal for administration procedures and best practices related to:
   - Funding opportunities
   - Pre-populated proposals, budgets and protocols
   - Proposal notification, account set up and negotiation policies and procedures
   - Contract and grant management policies and procedures
   - Technical and financial report templates and policies and procedures
   - Overview of internal service, resources and staff
2. Each institution should formulate relevant ICT policies to ensure enhanced quality of curriculum and programmes by identifying and leveraging best practices and monitoring outcomes.
3. There is the need to enhance faculty development efforts, especially for new faculty through in-service training on ICT.
4. Each institution should also establish high-technology portals containing.

- Information related to teaching and learning with technology, including faculty development opportunities, outcomes tracking, lessons learned, best practices, technology overviews and so forth.
- A repository of anlaysed student evaluations updated each semester for lessons learned and best practices for all faculty, and hubs" of information in each disciplinary area, including updated materials, recent publication and applicable research.
- Portal for students' services for both students and for the faculty and staff at the institution so that they are well informed to advise students; such information could include policies and procedures related to admission, financial aid, registration, degree and IT, billing/payment process advisory and tutoring, housing, dining, and other services. This portal could be personalised for individual schools or students grouped to customise service offering.
- Portal for alumni and development services to minimise redundant efforts, capture contact reports and link with research, curriculum and career development efforts.

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