

CHAPTER 18

_____ *Management and Administration of Education* _____

MANAGEMENT AND ADMINISTRATION OF EDUCATION THROUGH INFORMATION AND COMMUNICATION TECHNOLOGY

BY

AFARIOGUN Anthony, Ph.D
Dept of Educational Foundations
Adeyemi College of Education,
Ondo City, Nigeria.
E. Mail: tonniekayode@gmail.com
TEL. NO. 0803-803-9050

and

NWAOZOR, Augustus Onyekachi
Dept of General Studies
Adeyemi College of Education,
Ondo City, Nigeria
E.MAIL : nwaozorao@gmail.com

Abstract

When the notion of information and communication technology is discussed in terms of education, two dimensions can be seen clearly. One is administration and management, and the other involves teaching and learning. Educational institutions determine social behaviors, cultures, organizational structures, and interpersonal relationships. Learning democratic behavior, the power of independent and scientific thinking, and critical, creative, and productive thinking skills are all shaped by educational institutions. In the world of education ICTs is becoming part of educational system, thus their use in education by both academic and non-academic even students are becoming necessary. This has made it imperative that lecturers not only need to use ICTs, but they need to become comfortable with using ICTs. This is to ensure that they participate fully in the life of the contemporary institution and accomplish their everyday task. Combining new technologies with effective pedagogy has become a daunting task for both initial teacher training and in-service training institutions while teaching is becoming one of the most challenging professions in our society where knowledge is expanding rapidly and modern technologies are demanding teachers to learn how to use these technologies in their teaching. Therefore this paper look at the concept of information and communication technology, concept of educational administration and management, benefits of information and communication technology, challenges and conclusion was made. Lastly the paper recommended that information and communication

technology should be well managed in school and that they are important resources to both teachers and students.

Key Words: Management, Administration, Education and Information and Communication Technology.

INTRODUCTION

The use of information and communication technology is developing especially in the area of internet, institutions worldwide are undergoing a rapid change in the structure and content of their training and delivery methods of their courses. It promotes international collaboration and networking in education and professional development. There is a range of ICTs options from video conferencing through multimedia delivery to websites which can be used to meet the challenges teachers face today. The uses of information and communication technologies in the teaching field causes many changes in education. Teachers can employ technology in education through using websites, internet, word processor, power point, video and audio. The management of the teacher and the employment of technology proficiency to deal with will play a major role in giving a clear picture of the use of technologies in education, and we need qualified teachers in the skills of information and communication technologies, to be used for effective teaching and learning process.

According to Omirin and Bamgbose (2016), ICTs can facilitate research in any discipline as they provide quicker and easier access to more extensive and current information through digital libraries that provide digitized full-text resources to learners and researchers. In the world of education ICTs is becoming part of educational system, thus their use in education by both academic and non-academic even students are becoming necessary. This has made it imperative that lecturers not only need to use ICTs, but they need to become comfortable with using ICTs. This is to ensure that they participate fully in the life of the contemporary institution and accomplish their everyday task. Combining new technologies with effective pedagogy has become a daunting task for both initial teacher training and in-service training institutions while teaching is becoming one of the most challenging professions in our society where knowledge is expanding rapidly and modern technologies are demanding teachers to learn how to use these technologies in their teaching. However, while new technologies increase teachers training needs. ICTs play a unique, but complementary role in each of the

approaches with new technologies requiring new teacher roles, new pedagogies and new strands to teacher education. Ibrahim in Omirin and Bamgbose (2016) opines that the successful integration of ICTs into the classroom depends on the ability of teachers to structure their learning environments in non-traditional ways, merging technology with new pedagogies. He stressed further that this requires a very different set of classroom management skills to be developed, together with innovative ways of using technology to enhance learning and encourage technology literacy, knowledge deepening and knowledge creation. At the knowledge creation end of the continuum, the curriculum goes beyond a focus on subject knowledge to explicitly include 21st century skills that are needed to construct new knowledge and engage in lifelong learning, the ability to collaborate, create, communicate, innovate and think critically. While Babalola in Omirin and Bamgbose (2016) reports of a major reform and development in management of education to be significant improvement in communication and ICTs improvement with its positive influence on teaching and research technologies. Also, a major tertiary education reform recommended by the UNESCO (2002) was that there should be electronic networking involving mail communication capacities for teaching learning, research, management and performance monitoring of systems. Therefore, we need to sensitize educational institutions to improve their management practices, especially their records and data collection processes with a view to implement management information systems and strategic planning of their programs.

It is now apparent that a good management information system (MIS) is very essential in an institution. A good MIS equipped with modern technologies helps to meet the high demand for timely, up-to-date information. Information technology according to Laudon, Kenneth., Laudon and Jane, (2010) includes telecommunications and automation and information communication technology (ICT) in any medium to record information on flash memory devices, computer, CD, hard disk, DVD, and the like, which can be retrieved or stored electronically using a computer. These modern technologies make it easier and faster to acquire data, store, retrieve, process and disseminate the information. It is therefore very important that administrators today should be computer literate and information literate. An administrator should be able to get at the required information, process, use it and disseminate it to the appropriate recipients. This brings in the need for administrators to have communication skills and problem-solving skills.

The world is currently encouraging integration of e-learning strategies in higher education. The main reason for this global development is that world educational systems are troubled with four basic problems according to Oke (2014), ability to provide quality of education that will be enlisted as one of the best in the world, educational systems that will be able to cope with a very large number of students who are qualified yearly for university admission but could not get being admitted, educational system that will enable the world provide education for their large number of citizen within the limit of small budget and lastly educational system that will produce information technology oriented graduates that will be able to compete with the 21st century information age standard.

The Concept of Educational Administration

Educational administration is a discipline within the study of education that examines the administrative theory and practice of education in general and educational institutions and educators in particular activities. The field ideally distinguishes itself from administration and management through its adherence to guiding principles of educational philosophy. Educational Administration is regarded as the process of integrating the appropriate human and material resources that are made available and made effective for achieving the purposes of a programme of an educational institution, Afariogun, (2017). The term "Administration" doesn't refer to any single process or act. It is like a broad umbrella encompassing a number of processes such as: planning, organizing, directing, coordinating, controlling and evaluating the performance. The same situation occurs in the field of educational administration. The concept of educational administration is applicable in case of an educational organization which has certain purposes or goals to fulfill.

In order to achieve these purposes or goals, the head of the educational organization plans carefully various programs and activities. Here the educational organization may be a school, college or university. The head of the school/college/university organizes these programs and activities with co-operation from other teachers, parents and students. He/She motivates them and co-ordinates the efforts of teachers as well as directs and exercises control over them. He/She evaluates their performance and progress in achieving the purposes of the programme. He provides feedback to them and brings modification, if required in the plans and programs of the

school or college or university. So the totality of these processes which are directed towards realizing or achieving the purposes or goals of the school/college/university is called educational administration.

The Concept of Management

Management is a difficult concept to explain because it is a way of life, it is an essential ingredient for efficient production and a necessity for organized private life. It is required in industries but most needed in organizational systems. Management is the crucible of manpower production in any organization, certainly man requires management for an organized society. Management is a method where a group of people at the highest World level of institution or organization plan, organize, communicate, co-ordinate, control and direct the action and activities of people who work for the organization toward the achievement of organizational objectives it is therefore goal-oriented as a number of writers have testified. Prominent among them are Looniz and Resser as quoted by Ibukun (2004) who describes the role of management as a process of designing and maintaining a conducive atmosphere for members of an organization who are working together towards the realization of set objectives as planning, organizing, staffing, leading and controlling in order to reach the end; and as utilizing the physical and human resources through co-operative efforts. In summary one can say that management is accomplished by performing the functions of planning, organizing, staff-directing and controlling at different levels and degrees by the various management personnel in any given organization.

Administration and Management

Management is defined as an act of managing people and their work, for achieving a common goal by using the organization's resources. It creates an environment under which the manager and his subordinates can work together for the attainment of group objective. It is a group of people who use their skills and talent in running the complete system of the organization, Afariogun (2017). It is an activity, a function, a process, a discipline and much more. Planning, organizing, leading, motivating, controlling, coordination and decision making are the major activities performed by the management. Management brings together 5M's of the organization, that is, Men, Material, Machines, Methods, and Money. It is a result oriented activity, which focuses on achieving the desired output, Dubrin (2010).

The administration is a systematic process of administering the management of a business organization, an educational institution like school or college, government office or any nonprofit organization. The main function of administration is the formation of plans, policies, and procedures, setting up of goals and objectives, enforcing rules and regulations, etc. Administration lays down the fundamental framework of an organization, within which the management of the organization functions. The nature of administration is bureaucratic. It is a broader term as it involves forecasting, planning, organizing and decision-making functions at the highest level of the enterprise, Koontz, Daniel and Weihrich (1980). Administration represents the top layer of the management hierarchy of the organization. These top level authorities are the either owners or business partners who invest their capital in starting the business. They get their returns in the form of profits or as a dividend.

Communication in Education

When the notion of communication is discussed in terms of education, two dimensions can be seen clearly. One is administration, and the other involves teaching and learning. Educational institutions determine social behaviors, cultures, organizational structures, and interpersonal relationships. Learning democratic behavior, the power of independent and scientific thinking, and critical, creative, and productive thinking skills are all shaped by educational institutions. Directors and vice-directors have great importance in educational settings. In order to attain school objectives, develop school qualities, maintain school culture, and create a positive environment, mutual communication needs to be increased. An effective education depends on the responsibilities of the director, vice-director, and teachers. A director should communicate robustly with his/her staff, as well as members of parent-teacher associations, parents, bus drivers, and so on. Laudon, Kenneth., Laudon and Jane, (2010).

Communication in School

The objectives of communication in schools are to maintain school culture and prepare tasks. People in the school must be informed about all the tasks executed. In this way, many reflexive opinions are created. Communication is a complicated and important process that takes place everywhere, all of the time. Teachers make their lessons via oral, written, video, computer, and many other means. Students learn through similar tools. Communication is

particularly important for directors, who must understand the notion of communication because communication constitutes the main core of interpersonal relationships, organizational processes, and the structures of the school Laudon, Kenneth,, Laudon and Jane, (2010) One of the main conditions for attaining success in education is maintaining an effective environment for communication in the institution or organization. If people listen to each other attentively, communication will be impressive and solution-oriented.

Importance and Benefits of Information and Communication Technology in Educational Administration and Management

The Federal Republic of Nigeria (2004, 2013) emphasise the advantages of information and communication technology, it enhances the quality of education in several ways: increasing learner motivation and engagement, facilitating the acquisition of basic skills and enhancing teacher training, it also has transformational tools which, when used appropriately can promote the learner-centred environment. Despite the importance attached to ICTs in our school, students access to the utilization and the quality of facilities on ground in our school has not been equitable with what has been planned. Few people have access to it, schools in rural areas could not access it because of lack of electricity and the manpower to manage it. Mendel in Fabunmi, Ankomah and Oduro (2014) in a study of eight institutions, where computer based information systems (CBIS) were introduced, found out that after the introduction of CBIS, the levels of information satisfaction and job satisfaction are both interested. Structure of their decision-making became standardised. In addition, it was also found out that information system departments that were well managed tended to produce a greater degree of satisfaction than those that were not so managed.

Schoenfeld in Fabunmi et al (2014) also stated that, creating effective information assembly, analysis and dissemination has always been necessary for sound decision. The difference is technology. It is now apparent that a good management information system (MIS) is very essential in an institution.

A good MIS equipped with modern technologies helps to meet the high demand for timely, up-to-date information. Information technology according to Laudon, Kenneth,, Laudon and Jane, (2010) includes

telecommunications and automation and information communication technology (ICT) in any medium to record information on flash memory devices, computer, CD, hard disk, DVD, and the like, which can be retrieved or stored electronically using a computer. These modern technologies make it easier and faster to acquire data, store, retrieve, process and disseminate the information. It is therefore very important that administrators today should be computer literate and information literate. An administrator should be able to get at the required information, process, use it and disseminate it to the appropriate recipients. This brings in the need for administrators to have communication skills and problem-solving skills.

Today ICTs including laptops wirelessly connected to the internet, personal digital assistants, low cost video cameras and cell phones have become affordable, accessible and integrated in large sections of the society throughout the world. It can restructure organisations, promotes collaboration, increase democratic participation of citizens, improve the transparency and responsiveness of government agencies, make education and health care more widely available, foster cultural creativity and enhance the development in social integration (Oke, 2014). It is only through education and the integration of ICT in the education that one can teach students to be participants in the growth process in this era of rapid change.

ICT based education can be to provide greater reliability, validity, and efficiency of data collection and greater ease analysis, evaluation interpretation at any educational level. In absence of ICT, most of the responsibility of teaching and learning lies on the teachers. However, with the help of ICT, one can transfer the responsibility to students so that they can self manage. It help to individualise the teaching or guidance method per the students's need (Mooij, 2007; Ozdemir Abrevaya, 2007). The benefits of information and communication technology according to Kolawole, Akinbote, Ige, Adedoja and Aremu, (2017) are as follows:

1. Class work can be scheduled around personal and professional work. It also reduces travel cost and time to and from school.
2. Learners may have the option to select learning materials that meet their level of knowledge and interest and can study wherever they have access to a computer and internet.
3. Self-paced learning modules allow learners to work at their own pace and flexibility to join discussions in the bulletin board threaded

discussion areas at any hour or visit with classmate and instructors remotely in chat rooms.

4. Different learning styles are addressed and facilitation of learning occurs through varied activities. Development of computer and internet skills that are transferable to other facets of learner's lives are facilitated.
5. Successfully completing online or computer-based courses builds self-knowledge and self-confidence and encourages student to take responsibility for their learning.

Challenges of Information and Communication Technology in Education in Nigeria

1. The use of technology in the classroom has not been encouraging and teachers are not well trained in using ICTs in teaching as a means for educational sustainability (Ololube, 2006), Other challenges of Nigeria teacher education in coping with global trend in ICTs according to Kolawole, Akinbote, Ige, Adedoja and Aremu, (2017) are as follows: Very few teacher training institutions offer any form of pre-service ICT training.
2. Even with national ICTs policies, coherent strategies to develop teachers' ICT skills are lacking.
3. There is little sharing of experience between teacher training institutions and no move towards a united national framework for teaching ICT.
4. Nigeria lacks accreditation systems to acknowledge ICT skills obtained by teachers or rank courses by quality.
5. Many ICT teacher education project have been created with time-limited donor funding so it is doubtful whether they will remain sustainable.
6. Most teacher training institutions are too under-resourced to meet existing expectations of ICT training. The addition of ICT curriculum requires extra infrastructure, the development of teacher trainer ICT skills and production of ICT training materials. A shortage of public funds is the fundamental challenge to building skills in ICT in teacher training institutions.
7. Many educationists are yet to realize the transformation potential of ICTs. Notwithstanding many other spending priorities, as long as ICT is considered non-essential, they will continue to struggle for attention.

Conclusion

The use of ICT is necessary we can therefore say that the use of ICT tools can provide a number of benefit to the management of education. In educational management, decision-making for the present and future is very crucial. For effective decisions, data and information must be accurate, timely and up to date. The ICT tools have capability for information gathering, storage, processing, retrievals, and communication. These capabilities are developed into various systems for effective planning and administration of education. ICT has made life and tasks easy. The technology involved would make educational institutions and establishment meet their administrative targets at moderate time expense. It is noteworthy that ICT has provided a paradigm shift to the age and manual methods of administration as a must-to-implement for any education industry or body that is conscious of becoming a cutting-edge in the current global enterprise. All hands must be on desk towards the computerization of schools and offices, towards the globalization of education and networked educational management. This networked educational management would only be practicable with the provision of necessary ICT infrastructure, computer training, appropriate database and internet connectivity.

Recommendations

1. ICT should be fully integrated into the process of teaching, learning and educational management.
2. Training and re-training of teachers is necessary because the causes of any educational system is greatly anchored by teachers.
3. Achievements in the ICT penetration and usage in Nigeria teacher education programmes is dependent on the recognition of the importance of ICT application to education for sustainable development by the federal and state government by making useful policies and providing enough fund to the institutions on the one hand and the implementation of policies by the coordinating bodies and the institutions themselves on the other hand.
4. The Federal and State governments need to invest heavily on the institutions that offer teacher education programmes. An effort towards this will create an enabling environment for teacher education programmes to strive toward producing highly qualified ICT literate teachers that would assist in making the integration and usage of ICT in institutions a success.
5. The use of ICT for professional development of teachers who had

already completed their training but need to be introduced to new methodologies and innovations in their subject areas need to be seriously explored.

- 6.** Government should ensure a national internet broadband connectivity policy such that it would be easy to reach remote locations easily via the internet. ICT related equipment should attract little or no tariffs in importation and local software developers should be encouraged.

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