

Information and Communication Technology (ICT) and the Management of Secondary Schools in Southern Senatorial District of Taraba State, Nigeria

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Abstract: The study investigated information and communication technology and its impact on the management of secondary schools in Southern Senatorial District of Taraba State, Nigeria. The main purpose of the study was to investigate the impact of information and communication technology particularly; the use of internet and telecommunication (radio) on the management of secondary schools in Southern Senatorial District of Taraba State. Two research questions and two hypotheses were formulated and tested at 0.05 level of significance. A review of related literature was carried out in the area of information and communication technology as it relates to the management of secondary schools. The study employed a descriptive survey design. The study was targeted at all teachers and students of secondary schools in Southern Senatorial District of Taraba State of Nigeria. A sample of two hundred and forty (240) teachers in secondary schools in the senatorial district was drawn from fifteen (15) secondary schools in the senatorial district. An instrument titled “Impact of ICT on Secondary School Management Questionnaire (ICTSSMQ)” was used for data collection. Data collected were analyzed using mean and standard deviation to answer the research questions and the chi-square and single factor analysis of variance (ANOVA) were used to test the research hypotheses at 0.05 level of significance. The results showed that the use of internet and telecommunication (radio) has significant impact on management of secondary schools particularly in Southern Senatorial District of Taraba State. The researcher therefore recommended that the government should make sure ICT centres are established in all secondary schools to improve learning and effective management of these schools. Internet services should be made available in all secondary schools in the state. The government and the general public should engage in the training of teachers in the area of information and communication especially the use of computer and internet system to ease the teaching and learning process in schools and their management. Periodic workshop/seminars should be organized for the purpose of facilitating teachers’ literacy, awareness and skills in using ICT in schools.

[Oluwole Margaret Uga, Iroegbu Abigail Ifeoma. **Information and Communication Technology (ICT) and the Management of Secondary Schools in Southern Senatorial District of Taraba State, Nigeria.** *Nat Sci* 2015;13(5):77-85]. (ISSN: 1545-0740). <http://www.sciencepub.net/nature>. 9

Key words: Information and Communication Technology; Management; Internet; Telecommunication.

Introduction

Information and communication technology (ICT) is one of the most important driving forces promoting effective management of secondary schools. According to Ndukwe (2006), the production and introduction of calculators and computers in the education system worldwide has helped in simplifying teaching and learning in schools, thereby promoting national stability and economic survival.

The technology (information technology) is defined by Inyama (2002) as “a whole range of technologies involved in information processing electronic communication which includes the computers, internet or online instructions, radio, e-mail, videos, television, interface boxes, satellite connections and all the software and materials which are employed by principals and teachers for teaching and learning. Information and communication technology on the other hand is defined by Eyitoya and Eyitoya (1999) as the technology that acquires,

processes, stores, retrieves, and disseminates vocal, pictorial, textual and numerical information by combining data processing telecommunication techniques”.

Information and communication technology in education provides educational policy makers, planners, school administrators and practitioners with a systematic process to formulate, plan and evaluate education development programs. Isiguzo (2007;168) opines that “information and communication technology provides opportunities for students, teachers, school administrators and workers etc.. to communicate with one another effectively in a formal and informal contexts”

With the new information technologies in the rapidly changing world, one can access information wherever he is in any part of the world hence the world is referred to as a “*Global village*”. Technology has come to irreversibly change the work environment; this is because it has brought a great

measure of speed, efficiency, organization and in many instances, cost effectiveness in most areas of endeavour. The information and communication technology (ICT) have created a new window for the management of education. Now, educationists are increasingly discovering that new technologies have great job in enhancing features and are improving every day on the job.

Generally speaking, ICT has been recognised as educational tool that can be used to enhance and complement teaching and learning in schools. The use of computer in the administration and teaching and learning process in secondary school is becoming imperative for effectiveness and efficiency of the educational process in the nation day by day. Computer according to Dauda (2008:149) is define as “an electronic device capable of accepting input, storing and processing aid and output result based on specific set of pre defined instructions. The computer accepts data through an input device, processes that into information according to some specific rules, produces results as output through output device and stores the results for future use”. Timothy (2008; 136), defined computer as an electronic machine capable of solving problems and manipulating data, performing prescribed operation on this data and supplying the results of their operations.”

The use of internet in schools help school administrators and teachers as well as student in the aspect of record keeping and retrieval, decision making, performance assessment and re-assessment and planning. Principals do use computer and internet in school to prepare budget, check inventory, students’ records, make research and other administrative work for the school. According to Long (2009) internet is a valuable source of information for students looking for ideas for project and assignments. Anosike (2003; 94), maintains that “the internet is advantageous in almost every sphere of life especially in education. According to him, internet is informative, educating, entertaining, improves commercial transactions and many more. Long (2009;132) states that “the internet is the interconnectivity between computers in different part of the world” principals in the management of schools can perform online banking, communicate with ministry of education officials, teaching service board or examination board officials. African examination council/National Examination Council etc., principals in order to manage schools effectively can use internet to browse for information in any part of the world with adequate information using internet principals can fairly assess the various aspect of the school in order to know whether things are going according to plans so as to make appropriate decisions. Through the use of internet, the principal can inspect within and outside the school. For

instance, internet can be used in checking results, send and receive mails (inbox and draft).

According to Obi (2004), management refers to the process by which managers create, direct maintain and operate purposive organizations through coordinated, cooperative human efforts. Eze (2007) asserts that managers are the people who set objectives for using available resources, formulate plans for achieving these objectives, identify the activities to be performed, organize the activities into groups, staff the job with people, initiate activities, supply incentives to stimulate productivity, set up controls to measure the achievement of objectives and take remedial action of the objective are not met.

Management is thus, regarded as the process undertaken by one or more individuals to coordinate the activities of the others to achieve results not achievable by one individual acting alone. Onodugo cited in Chinedu (2009) states that management is a process through which organizational objective are realized efficiently and effectively He however, summed up by noting that management refers to doing thing through and with people. Management is the primary force within organizations that coordinate the activities of the sub-system and relate it to its environment.

Researches in recent times notice, that in the midst of office computerization and technologies, principals and staff of most secondary schools in senatorial district of Taraba State are still illiterate in computer usage and as such type writers, paper files and correspondence are still in use. It is the thrust of his research therefore to find out impact of ICT on the management of secondary schools in senatorial district of Taraba State.

Research Questions

The following research questions guided the study.

- i. Does the use of internet have impact on the effective management of secondary schools in Southern Senatorial District Taraba State?
- ii. In what ways does the use of radio have impact on the management of secondary school?

Hypotheses

The following hypotheses were formulated and tested at 0.05 level of significance.

- i. The use of internet has no significant impact on the management of secondary schools in Southern Senatorial District Taraba State.
- ii. The use of radio has no significant impact on knowledge and skill acquisition in secondary schools

Review of Related Literature

Concept of Information and Communication Technology

Retiz (2004) defines information technology as a term that encompasses the application of technologies

to information handling - generation, storage, processing, retrieval, dissemination among others. Hipgrove, (1995) maintains that information technology includes three main components; Management Information System (MIS) or Decision Support System (DSS), hardware and human factors. In education, Educational Management Information System (EMIS) is designed to match the structure, management tasks, instructional processes and special needs of educational system. According to Sambo (2002), EMIS is a dynamic system that processed data, retained in its integrated database and transforms these into outputs, using models for decisions alternatives at each of its strategic planning, management control, and operational control level. Comboy (2006), maintains that EMIS encompasses data on such items as the following; students, teachers, employees, classrooms, grade levels, courses, student achievements and behaviour, counselling guidance and health, food services, school pace, curriculum, physical plant, finance, inventory, transportation and extracurricular activities. He asserted further that EMIS provides teachers and educational administrators with new services that support them in decision-making, planning, analyses and profiling of educational processes and outcomes and also assists in a variety of other activities.

Information and Communication Technology (ICT) in education is seen by Ubani in Eze (2007) as the combination of technologies for collecting, processing communicating and delivery of information related to teaching and learning process. Anekwe (2008) simply defines ICT as "all that is involved in gathering and processing information using modern communication technology such as computers and other related equipment so that the services (output) generated can reach all that desire them at reasonable cost and in good time to the overall benefits of mankind.

Eze (2007) defines ICT simply as the various ways the computer work together with other telecommunication equipment which are needed in data processing and information transmission to solve problems in different aspects of human endeavour. Commenting on the role of ICT in school management, Dauda, (2008) posits that principals of ICT manage their schools through the use of electronic devices which help them (principals) to learn how to keep records on management, learning and research on the other areas of computer-appreciation that can enhance education where that principal can improve their performance as leaders and heads of their school.

Retiz (2004) examines the potential impact of ICT and concluded that the role of ICT in education includes providing a catalyst for rethinking teaching

practice, developing the kind of graduates and citizens required in an information society, improving educational outcomes and improving the qualities of teaching and learning. Wiws and Lawler (2007) maintain that the application of ICT in education can address some of the educational problems which also affect women education in developing countries in general and Nigeria in particular. These are shortages of qualified teachers, lack of educational opportunities, inadequate access to learning and teaching resources, high enrolment rates and high impact dropout, inefficient educational administration, and centred curricular conversely, ICTs in education has the capacity of;

- Increasing the number of qualified teachers;
- Increasing educational opportunities;
- Promoting greater access to learning and teaching resources;
- Increasing the number of women enrolment and reducing the rate of dropout;
- Promoting competency and performance-based curricula.

Imyama (2002) agrees that one cannot overestimate the utilization of ICT in everyday activities of the school. ICT assists the school administrator to meet that task of school management in the area of curriculum and instruction, school community relationship and school business operation.

Concept of Management

Management according to Akpakwu (2012) comes from the verb 'manage' which can mean to handle, to control, to make and keep submissive, to organize, to alter by manipulation and carryout for a purpose. Chinedu (2009) defines management as a process through which organizational objectives are realized efficiently and effectively. He however, summed up by noting that management refers to doing things through and with people. Okwori (2003) maintained that management is a task of planning, coordinating, motivating and controlling the efforts of others towards predetermined objectives. It then means management is a process by which managers, create, direct, maintain and coordinate human efforts for the achievement of the predetermined goals of the organization. It is the primary force within organizations that coordinate the activities of the sub-system and relate it to its environment.

Impact of Internet on the Management of Secondary School

The connectivity of computer network that help information communication is important in all areas of human endeavour. The term internet according to Awake (1997) internet is just a room filled with many spiders each spinning its own web. The webs are so interconnected that the spiders can travel freely within

the maze. It is a global collection of many different types of computers and computer networks that are linked together. Ndum (2001) stated that the internet features extensive materials for students that cover recreation, entertainment sports etc. It provides access to almanacs, dictionaries, encyclopaedia and maps.

According to Onyeme, Mbah and Madumere (2008), the internet is growing faster than all other communication technologies that have preceded it. Ndum (2001), "One of the reasons why people formally had no interest in computers but are now willing to get involved in computing stems from the mystery the internet had generated. In fact, the internet turned the world into a global village where people of different nationalities, race and social backgrounds can communicate on a one to one basis to share and exchange ideas across continents in an interactive and personal manner. Despite the modest record of growth of internet connectivity in the world's Nigeria is still on the outskirts due to poor infrastructure low level of education, poverty, low internet awareness, social disequilibria etc. As a result, Aragba-Akpore (2001) remarked that there are no more than 500,000 connected telephone lines and where subscribers to the internet link of alternatives like wireless application protocol (WAP) and recently fibre optic connectivity, cost is higher than the rest."

The internet as an educational medium offers real benefits and prospects. However, the internet presents some real dangers. According to Eyitoya and Eyitoya (1999) "with internet, many advantages also come with many challenges and problems. By merely typing the word "sex" in a web search engine, you can find in ages of nude photos of both genders in a variety of situations that can be considered compromising at best. Managing internet access by students is particularly problematic. Internet connection time is often used by students to access pornographic sites, read newspapers, play games and engage in online chatting. The problem of students submitting down-loaded works from the internet as their projects and assignments is rampant while scarce resources are wasted printing irrelevant documents and visiting sites with questionable educational values."

The ability to use the computer and internet effectively has become an essential part of every one's education. Skills such as booking, clerical and administrative work, stock taking, now constitute a set of computerized and internet practices that form the core ICT skill package. The Nigerian government has commissioned Mobile Internet Unit (MIU) operated by the Nigerian National Information Technology Development Agency (NITDA) and the MIU takes the internet to places, areas and various primary and secondary schools (Ajayi, 2000).

Inyama (2002) outlines a short list of typical uses of internet as e-mail which is an internet, principals can send and receive letters from users or principals located anywhere in the world at electronic speed and new groups, which help principals and users to share new information and articles. This provides a platform for worldwide information sharing, facsimile, involves internet principals or users having a facsimile (or fax) machine to receive and send tax messages via the internet. Internet helps principals and school managers to access materials on recreations, sports, dictionaries and educational materials. Onyeme, Mbah and Madumere (2008) emphasize the role of ICT in the documentation of day to day, as well as future operations in tertiary setting. ICT can be used; to boost personal development through knowledge acquisition and research, to enhance teaching-learning processes and to facilitate adequate documentation records. The principal in his office can access information from the ministry of education, internal or external examination bodies. The teachers and students are able to improve their academic performance by ongoing research through the use of internet.

Adamu (2006) states that, principals at their various desks can easily access information on both students and school personnel that have been collected and stored on the net. Where the school library is computerised, the principal from his desk can check which books are available and which are not in the library. According to Dauda (2008; 150) maintains that principals of schools can pursue courses on school management by correspondence via the internet. This is practical as can be seen in case of distance learning where courses are learnt through the use of internet.

In the area of finance, the principal can browse through to know the state of school finances right from his desk, he can know the school balances in the bank, the students who are owing school fees. This information from the use of exploring internet can in turn lead to better decision making by the principal. The principal through the use of internet improve the school system effectively by introducing new and rapid changing ideas to the school environment as a result of wide world interchange of information, e-mail is an internet based electronics substitute for the conventional post office. These and more others make the school principal effective in the administration of his school.

Telecommunication (Radio) and Management of Secondary Schools

Telecommunications is the exchange of information over significant distance by electronic means. A complete, single telecommunications circuit consist of two stations each equipped with a transmitter and a receiver. The transmitter and

receiver, at the any station may be combined into a single device called a transceiver. The medium of signal transmission can be electrical wire or cable (also known as 'copper'), optic fibre or electromagnetic fields. The free space transmission and reception of data by means of electromagnetic fields is called wireless. Microsoft Encarta Premium (2009) also defines telecommunications as the science and technology of transmitting information electronically by wires or radio signals with integrated encoding and decoding equipment.

According to Comboy (2006) the term telecommunication means transmitting information by means of electronic cables (telephone and telegraph) or by means of radio waves (via transmitters, satellites etc). Every nation in the world has some form of national network transmitting information in these ways. Telephone lines for example, are used by business people everywhere as essential part of their communication with colleagues and clients. Because of the fact that telephone lines are based on electronics, they are obvious resources to be used by the principals for administrative purpose.

Ndum (2001) notes the importance of telecommunication (radio) to education and maintains that, the pseudo interactive radio format has been tested and found to be useful and successful for second language teaching and management. Telecommunication networks are organized electronic systems and procedures which enable institutions to exchange information reliably by electronic means (Ndum, 2001). According to Sambo (2002) information delivery in schools is most times difficult without the use of radio. Admissions are properly advertised by school heads through the use of telecommunications. This entails that telecommunication particularly radio has a big advantage to the development and achievement of educational goals through effective management of schools.

Methods and Procedures

Research Design

A descriptive survey research design was used for the study. According to Emaikwu (2012), descriptive survey design is a design that is aimed at collecting data and describing in a systematic manner the characteristics, features, or facts about a given population. That is, the descriptive survey design describes and documents what exists, the present status of existence or absence of what is been investigated. The design is considered appropriate for the work because it will find out facts and figures on the impact of information and communication technology on the management of secondary schools in Southern Senatorial District of Taraba State.

Sample and Sampling Procedure

The study was targeted at all teachers and students of secondary schools in Southern Senatorial District of Taraba State of Nigeria. A sample of two hundred and forty (240) teachers in secondary schools in the senatorial district were drawn from fifteen (15) secondary schools in the senatorial district as at 2012/2013 school year using random sampling technique of hat and draw method. The fifteen (15) secondary schools were selected from urban, semi-urban and rural locations of the southern senatorial district of Taraba State.

In selecting the schools, the names of the secondary schools within the southern senatorial district of Taraba State were written on pieces of papers, squeezed and mixed inside three different hats based on their groups (urban, semi-urban and rural areas) so that each school had equal probability to be selected in their groups. In each of the group, five (5) secondary schools were selected making a total of 15 secondary schools. Within the 15 selected schools, the first fifteen (15) teachers that were seen on the day their school was visited and their principal were selected as sample for the study giving a total number of 16 teachers in each school and the overall total of 240 respondents for the study.

Instrumentation

The instrument utilised for the study was a structured questionnaire titled "Impact of ICT on Secondary School Management Questionnaire (ICTSSMQ)". The questionnaire was a sixteen-item (16-item) questionnaire divided into two sections, A and B. Section "A" sought information about the respondent's name of school while section "B" had items that elicited information relating to the objectives of the study. The section was subdivided into two clusters based on the information and communication technology variables that were used in the study. Each cluster of the section was made up of eight (8) statements making a total of sixteen (16) statements in the section. The items are stated in a very simple and clear language with desired responses tabulated on a four point rating scale with a response mode of Strongly Agree (4 points), Agree (3 points), Disagree (2 points) and Strongly Disagree (1 point).

Method of Data Collection

In administering the questionnaire, a face to face method was employed in administering the questionnaire. The direct delivery approach was used to enable the researchers to thoroughly explain the purpose, importance and confidentiality of all information to the respondents and also collect the completed questionnaire immediately to avoid losses.

Method of Data Analysis

The descriptive statistics of mean and standard deviation were used to answer the research questions.

A cut-off point of 2.50 which is the arithmetic mean of the four point rating scale ($4+3+2+1=10\div 4=2.50$) was considered as a criterion for determining the impact information and communication technology on the management of secondary schools. A cut-off point of 2.50 and above represents positive response whereas any mean less than 2.50 was regarded as negative response. Chi-square and One factor analysis

of variance (ANOVA) were used to test the hypotheses at 0.05 level of significance or 95% certainty of prediction.

Analysis of Research Questions

Research Question One

Does the use of internet have impact on the effective management of secondary schools in Southern Senatorial District of Taraba State?

Table 1: Mean and Standard Deviations of Teachers on the Use of Internet and Management of Secondary Schools

| Item No | Item Description | SA | A | D | SD | \bar{X} | ST.D | Decision |
|--|---|-------------|-------------|-----------------|----|-----------|------|----------|
| 2 | The use of internet helps management to get information about other schools. | 102 | 82 | 38 | 18 | 3.25 | 0.72 | Accepted |
| 3 | Internet facilities assist the school management in publishing students' admission list | 90 | 97 | 35 | 18 | 3.25 | 0.61 | Accepted |
| 4 | Secondary school management uses internet to advertise for vacancies in the school. | 73 | 121 | 25 | 21 | 3.18 | 0.47 | Accepted |
| 5 | Internet is used in the registration of students' external examinations like WAEC, NECO, NABTEB | 57 | 111 | 49 | 23 | 2.74 | 0.69 | Accepted |
| 6 | Internet facilities assist in the proper functioning of secondary school libraries | 60 | 145 | 21 | 14 | 3.04 | 0.56 | Accepted |
| Cluster Mean and Standard Deviation | | 3.09 | 0.61 | Accepted | | | | |

Table 1 indicates that the mean ratings of teachers for items 7 to 11 were 3.25, 3.25, 3.18, 2.74, and 3.04 with their corresponding standard deviation of 0.72, 0.61, 0.47, 0.69 and 0.56. The respondents indicate that the use of internet helps management to get information about other schools. Internet facilities assist the school management in publishing students' admission list. Secondary school management uses internet to advertise for vacancies in the school. They also agreed that secondary school management uses internet to register students for external examinations

like WAEC, NECO, NABTEB. The cluster mean of 3.09 and corresponding standard deviation of 0.61 was accepted because the mean was above the mean cut off point of 2.50. It then means that internet have significant impact on effective management of secondary schools in Southern Senatorial District of Taraba State.

Research Question Three

In what ways does the use of radio have impact on the management of secondary school?

The data presented in Table 2 show that the mean ratings of teachers for items 7 to 11 were 3.03, 2.88, 2.83, 2.88 and 2.96. Their corresponding

standard deviations were 0.29, 0.65, 0.54, 0.56 and 0.48. The respondents agreed that the use of radio is one of the fastest ways of accessing and disseminating information. Invitation for contributions from expert in particular disciplines from distant places is more effective through radio announcement. Radio is a good medium for instructional purpose. Radio can be used to interact with parents about their wards' performance in schools. They also agreed that radio is an effective in the oral examination of learners in secondary schools. The cluster mean of 2.92 and corresponding standard deviation of 0.50 also was accepted as rated above the 2.50 mean cut off point. This implies that the use of radio has impact on knowledge and skills acquisition in secondary schools.

Hypotheses Testing

The statistical tools used for these analyses were chi-square and one-way (single factor) analysis of variance (ANOVA). The tools were used in testing each of the hypotheses at 0.05 level of significance.

Hypothesis One

The use of internet has no significant impact on the management of secondary schools in Southern Senatorial District Taraba State.

Table 2: Mean and Standard Deviations of Teachers on the Use of Telecommunication (Radio) and Management of Secondary Schools

| <u>Item No</u> | <u>Item Description</u> | <u>SA</u> | <u>A</u> | <u>D</u> | <u>SD</u> | <u>\bar{X}</u> | <u>ST.D</u> | <u>Decision</u> |
|--|--|-------------|-------------|-----------------|-----------|-----------------------------|-------------|-----------------|
| 7 | The use of radio is one of the fastest way of accessing and disseminating information. | 54 | 127 | 35 | 24 | 3.03 | 0.29 | Accepted |
| 8 | Invitation for contributions from experts in particular disciplines from distant places is more effective through radio announcements. | 56 | 95 | 77 | 12 | 2.88 | 0.65 | Accepted |
| 9 | Radio is a good medium used for instructional purposes | 46 | 126 | 60 | 8 | 2.83 | 0.54 | Accepted |
| 10 | Radio can be used to interact with parents about their wards' performance. | 52 | 124 | 48 | 16 | 2.88 | 0.56 | Accepted |
| 11 | Radio is effective in the oral examination of learners in secondary schools. | 43 | 142 | 36 | 19 | 2.96 | 0.48 | Accepted |
| Cluster Mean and Standard Deviation | | 2.92 | 0.50 | Accepted | | | | |

Table 3: Chi-Square Test of Impact of the use of Internet on the Management of Secondary Schools in Southern Senatorial District of Taraba State.

| <u>Opinion Observed</u> | <u>Expected Frequency</u> | <u>Expected Frequency</u> | <u>df</u> | <u>X²-cal</u> | <u>X²-crit</u> | <u>Level of</u> | <u>Decision</u> | <u>Sign.</u> |
|-------------------------|---------------------------|---------------------------|-----------|--------------------------|---------------------------|-----------------|-----------------|--------------|
| No Impact | 52(22%) | 120(50%) | 1 | 93.03 | 21.03 | 0.05 | Rejected | |
| Impact | 188(78%) | 120(50%) | | | | | | |

Values in parentheses are percentages. $X^2\text{-cal}=93.03$, $X^2\text{-crit}=21.03$, $df=1$, $p=0.05 > 0.00$

Table 4: Single Factor Analysis of Variance Test of Impact of the use of Internet on Management of Secondary Schools in Southern Senatorial District of Taraba State.

| <u>ANOVA</u> | | | | | | | |
|----------------------------|-----------------------|-----------|---------------------|----------|------------|------------------|--|
| <u>Source of variation</u> | <u>Sum of squares</u> | <u>df</u> | <u>Mean squares</u> | <u>F</u> | <u>P</u> | <u>Remark</u> | |
| Between Groups | 35.138 | 4 | 8.784 | 16.622 | $p < 0.05$ | F is significant | |
| Within Groups | 124.196 | | 235 | .528 | | | |
| Total | 159.333 | | 239 | | | | |

Table 3 shows that 188 respondents representing 78% of the total respondents agreed that the use of internet have significant impact on management of secondary schools in Southern Senatorial District of Taraba State whereas 52 respondents representing 22% of the total respondents disagreed. The table also indicates that the calculated ($X^2\text{-cal}$) value of 93.03 is greater than the critical ($X^2\text{-crit}$) value of 21.03 at 0.05 level of significance and at 1 degree of freedom. It then means that the null hypothesis which states that the use of internet has no significant impact on the management of secondary schools in Southern Senatorial District Taraba State was rejected. This implies that the use of internet has significant impact

on the management of secondary schools in Southern Senatorial District Taraba State.

On Table 4, the single factor analysis of variance (ANOVA) was computed and the F of 16.62 at 0.05 level of significance and at 4 and 235 degree of freedom was obtained. Hence the F-cal (16.62) was greater than the critical value of F (2.37) for 4 and 235 degree of freedom and $p < 0.05$, the null hypothesis was rejected. This also implies that the use of internet has significant impact on management of secondary schools in Southern Senatorial District of Taraba State.

Hyp hypothesis Two

The use of telecommunication (radio) has no significant impact on knowledge and skill acquisition in secondary schools.

Table 5: Chi-Square Test of Teachers' Use of Telecommunication (Radio) and management of Secondary Schools.

| Opinion | Observed Frequency | Expected Frequency | df | X ² -cal | X ² -crit | Level of Sign. | Decision |
|-----------|--------------------|--------------------|----|---------------------|----------------------|----------------|----------|
| No Impact | 61(26%) | 120(50%) | 1 | 89.17 | 21.03 | 0.05 | Rejected |
| Impact | 179(74%) | 120(50%) | | | | | |

Values in parentheses are percentages. $X^2\text{-cal}=111.17$, $X^2\text{-crit}=21.03$, $df=1$, $p=0.05 > 0.00$

Table 6: Single Factor Analysis of Variance Test of Impact of Telecommunication (Radio) on Management of Secondary Schools in Southern Senatorial District of Taraba State.**ANOVA**

| Source of variation | Sum of squares | df | Mean squares | F | P | Remark |
|---------------------|----------------|-----|--------------|--------|--------|------------------|
| Between Groups | 53.520 | 4 | 10.704 | 23.671 | p<0.05 | F is significant |
| Within Groups | 105.813 | 235 | .452 | | | |
| Total | 159.333 | 239 | | | | |

Table 5 indicates that 179 respondents representing 74% of the total respondents agreed that the use of telecommunication (radio) has impact on the management of secondary schools as against 61 respondents representing 26% of the total respondents who disagreed. It also indicates that calculated ($X^2\text{-cal}$) value of 89.17 is greater than the critical ($X^2\text{-crit}$) value of 21.03 at 0.05 levels of significance and at 1 degree of freedom. It means the null hypothesis was rejected meaning, the use of telecommunication (radio) has impact on the management of secondary schools.

On Table 6, a single factor analysis of variance (ANOVA) was computed and the F of 23.67 at 0.05 level of significance and at 5 and 234 degree of freedom was obtained. Hence the F-cal (23.67) was greater than the critical value of F (2.21) for 5 and 234 degree of freedom and $p < 0.05$, the null hypothesis was rejected. It then means the use of telecommunication (radio) has impact on the management of secondary schools.

Discussion of Findings

The discussion of the major findings of this research was organized according to the research questions and hypotheses to ease reading and comprehension. Out of the two null hypotheses that were postulated and tested, none was accepted.

The first finding of the study revealed that online instruction has significant impact on management of secondary schools in Southern Senatorial District of Taraba State. The findings is in line with Comboy (2006) who noted that telephone lines as one of online way of instruction are used by business people everywhere as essential part of their communication with colleagues and clients. Because of the fact that telephone lines are based on electronics, they are obvious resources to be used by the principals for administrative purpose and the general management of their schools.

The second finding of the study indicates that teachers' use of radio has impact on knowledge and skill acquisition in secondary schools. Ndukwe (2006) who maintain that the pseudo interactive radio format has been used successfully for second language management and exiting most notably Kenya in addition, full two-way radio communication has long been used in Australia to correct principals and individual student lining in isolated forms.

Conclusion

Based on the findings of the study, it is concluded that the use of internet and telecommunication (radio) has significant impact on management of secondary schools particularly in Southern Senatorial District of Taraba State.

Recommendations

Based on the findings and conclusion of this study, the following recommendations were made. The government should make sure ICT centres are established in all secondary schools to improve learning and effective management of these schools. Internet services should be made available in all secondary schools in the state. The government and the general public should engage in the training of teachers in the area of information and communication especially the use of computer and internet system to ease the teaching and learning process in schools and their management. Periodic workshop/seminars should be organized for the purpose of facilitating teachers' literacy, awareness and skills in using ICT in schools.

Acknowledgement:

Authors are appreciable to the Department of Educational Foundations, Faculty of Education, Benue State University, Makurdi for their support to their academic excellence performance.

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References

1. Adamu J. (2006). The next word war: Computer are the weapons and the front line in everywhere. Boston Simon and Schutter 1(6) In *Nigeria principal journal of Ancopass* 2006 pp. 74-79.
2. Adeyemi TO, Olateye FO. (2008). Information communication and technology for the effective management of secondary schools for sustainable development in Ekiti. *Journal of Scientific Research* 2: 106 -113.
3. Anekwe JU. (2008). Information and communication technology in M. O. Ofoefuna (ed) (198.209). *Functional approach to education tech*. Onisha: Ofoeana publishers.
4. Anosike IC. (2003). Internet literacy. *Nigerian horizon publications* 2(1), 4-7.
5. Aragba-Akpore S. (2001). *Role of information technology*. The Guidance P. 35.
6. Awake (1997). *The Internet is it for you?* Awake, Brooklyn, N.Y Watch Tower Bible and Track Society and Programming languages 2nd Edition.
7. Chinedu MA. (2009). *Educational administration and managemenet*. Enugu: Ugo Published.
8. Chinedu RA. (2009). *Educational and administration management issues and perspective*. Enugu: Tons and Tons PDS Publisher.
9. Comboy I. (2006). *Teachers and machines the classroom use of technology since 1920*. New York: Teachers' College Press.
10. Dauda A. (2008). *Computer essentials* 2nd Edition in (Ancopps) McGraw Hill.
11. Emaikwu SO. (2012). *Fundamentals of educational research methods and statistics*. Makurdi: Published by Selfers Academic. Educational administration quarterly 29 (3) 372-411.
12. Eyitoya A O. and Eyitayo, O. E. (1999). *Security Technologies for secure business Transaction on the Internet*. Proceeding of the 15th National Conference of the Computer Association of Nigeria (Pp 262 – 272).
13. Eze RO. (2007). *Improving the Quality of Teaching and Learning in Upper Basic Education in Nigeria Through information Communication Technology (ICT)*. A paper presented at the 20th annual conference of the curriculum organization of Nigeria (COC) held at the faculty of education auditorium Abia State University, Uturu on Wednesday 19th Saturday 22nd September. 2007.
14. Hipgrove AT. (1995). Information technology in education management.
15. Inyama HC. (2002). *Computer application and information technology*. Enugu: The dynamic informer Inc.
16. Isiguzo SO. (2007). *Microcomputers application for strategies management in education*. A Case study approach New York Longmans.
17. Long, N. (2009). *Computers: Information technology in perspective* 9th edition. New Jersey: Prentice Hall.
18. Ndukwe O. (2006). Furthering the digital revolution in Nigeria in an era of technology convergence. *Vanguard Newspaper, Monday 16 January 2006*.
19. Ndum SC. (2001). *The role of internet in today's business*. Unpublished National diploma project, Federal Polytechnic, Nekede Owerri.
20. Obi E (2004). Issues in educational administration. Enugu: Empathy Publisher.
21. Okwori A. (2003). "Management techniques in education" (Unpublished Manuscript). Makurdi: A world survey of problems and prospect. Paris: Educational Publishers.
22. Onyeme V, Mbah, P, Madumere SC. (2008). Information communication technology (ICT) and documentation in tertiary institutions. *Enterger Issues in Nigeria Education*, 4: 180 – 196.
23. Sambo A A. (2002). Technology and its impact on the mathematical science education for the mathematical science summit 2002 at the National Mathematical Centre Abuja, 4th – 5th October 2002.
24. Timothy J. (2008). *Computing essentials*. 2nd edition in (Ancopps) McGraw Hill.
25. Wiws P, Lawler M. (2007). Investing in ICTS in educational institutions in developing countries; An Evaluation of their impact in Kenya. *International Journal of Education and Development*, 3(3), 3-7.

4/18/2015