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**An Assessment of Principals' Application of ICT in Secondary School Administration in  
the Urban and Rural Areas of Akwa Ibom State**

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BY

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**ABSTRACT**

*The study sought to assess principals' application of ICT in secondary school administration in urban and rural areas of Akwa Ibom State. A comparative survey design was used for this study. The research was conducted in Akwa Ibom State while the population of this study comprised Principals and Vice Principals in Public Secondary Schools. A stratified random sampling technique was used to draw the sample of 535 secondary school administrators comprising 123 principals and 412 vice principal, chosen to participate in the study. The main instrument used in this study was questionnaire titled "Urban and Rural Principals' Application of ICT in Secondary School Administration Questionnaire (URPAISSAQ)". Face validation of the instrument was carried out by experts in the field. To establish the reliability of the instrument, internal consistency reliability test was carried out using Cronbach Alpha technique and the level of reliability coefficient was 0.81. This level (0.81) of coefficient proved high level of reliability of the research instrument. Research hypotheses were tested using independent t-test formulated for the study at .05 level of significance. The result of the analysis revealed that: the level of school administrative effectiveness of the principals in Akwa Ibom State is of high extent; there is low level of principals' application of ICT in secondary school administration in Akwa Ibom State, also that application of ICT in Secondary School administration by urban principals is higher than those of the rural principals. It was therefore recommended amongst others, that Akwa Ibom State Government or its agency supervising secondary schools should show more interest in imbibing Information Communication Technology (ICT) and in supplying the necessary ICT facilities to secondary schools, especially in the rural areas, to facilitate effective school administration.*

**KEYWORDS: Principals, Application, Location, ICT, Administration, Secondary School, Rural, and Urban**

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## Introduction

Information and communication Technology (ICT) refers to all the technology used to handle telecommunication, broadcast media, intelligent building management system, audio visual processing and transmission system, and network-based control and monitoring functions (Murray, 2011). With ICT, the secondary school head can discharge his/her duties by using computers and internet in solving school general problems and in carrying out his/her day-to-day assignment especially as it relates to having a reliable information system in a laptop computer irrespective of the principal gender, qualification and age. ICT play a major part in diminishing the work of the administrator and his/her staff especially in keeping daily records of student.

School location, either rural or urban, should not be a barrier to application of ICT in school administration since today's society is in a state of continual change, with one change leading to another. According to Nwaka (2010), the society has become increasingly confused, fragmented and discontented. This is because the rapid pace of change as affected all the institution without exception. The old learning skill, attitude, instructional materials, equipment and methods are quickly getting obsolete, irrelevant or inadequate. School administrators must upgrade to meet the rapid changes in the society. According to Adeyemi & Olaleye (2010), the use of information Communication Technology (ICT) can improve education quality, expand learning opportunity, and makes education accessible. Ibe-Bassey (2000) & Inyang-Abia (2004) noted that media mediate in the continuum between stimulus response learning and cognitive learning to concretize ideas, concept and facilitate learning. This reveals that ICT is capable of facilitating the collection, preparation, presentation, storage, retrieval, conveyance and disseminating of information (Arinze, Okonkwo & Iwunor, 2012).

## Statement of the Problem

Today, as the secondary school system is expanding at an unprecedented rate in terms of resources and students' enrolment, so also the problems of its planning, organizing, coordinating, controlling and directing which are to be performed by the school principals. ICT has been seen as a way of addressing these challenges in education. The initial aim of introducing ICTs in education was primarily at developing ICT skills; the focus has overtime shifted to leverage ICTs to address issues of qualify and to improve teaching and learning especially at secondary and post-secondary levels. In the state educational sector, factors such as age, qualification, gender and experience have been considered in appointing teachers to leadership positions of schools principals, with that belief that some individuals would be more effective than others. The researcher also has observed that the location of principals like rural or urban can constitute problem in the application of ICT for effective school administration.

## Objectives of the Study

The study sought to assess principals' application of ICT in secondary school administration in the urban and rural areas of Akwa Ibom State. Specifically, the study sought to:

1. Assess the level of school administrative effectiveness in the urban and rural areas of Akwa Ibom State.
2. Determine the level of principals' application of ICT in secondary school administration in the urban and rural areas of Akwa Ibom State.

3. Establish the difference between rural and urban principals' application of ICT in Secondary School administration in Akwa Ibom State.

### **Research Questions**

1. What is the level of school administrative effectiveness in the urban and rural areas of Akwa Ibom State?
2. What is the level of principals' application of ICT in secondary school administration in the urban and rural areas of Akwa Ibom State?
3. What is the difference between rural and urban principals' application of ICT in Secondary School administration in Akwa Ibom State?

### **Research Hypotheses**

- H<sub>01</sub>: There is no significant level of school administrative effectiveness in the urban and rural areas of Akwa Ibom State.
- H<sub>02</sub>: There is no significant level of principals' application of ICT in secondary school administration in the urban and rural areas of Akwa Ibom State.
- H<sub>03</sub>: There is no significant difference between rural and urban principals' application of ICT in Secondary School administration in Akwa Ibom State.

### **Literature Review**

#### **Concept of Secondary School Administration**

To achieve the eight objectives of secondary school education, outlined by The National Policy on Education, the secondary school administrator has a crucial role to perform and his/her performance determines the success or failure of the educational plan in his/her school. For instance, the objective of provision of trained manpower in the applied science, technology, and commerce cannot be achieved without keeping abreast with ICT appliances. An uninformed school administrator cannot provide and update information. According to Cussack and Skiller in Oboegbulem & Ogbonnaya (2008), there have been increasing changes for administrators in the areas of leadership expectation, work demands, schools and personal accountability, human resources management, decision-making communication, power and authority, and planning. These changes demand that the school administrator must be computer literate to cope with the demands on him/her. In today's world, ICT can increase school efficiency and reduce unnecessary bureaucracy in school administration.

With ICT, the secondary school head can discharge his/her duties by using computers and internet in solving school general problems and in carrying out his/her day-to-day assignment especially as it relates to having a reliable information system in a laptop computer. ICT can play a major part in diminishing the work load of the administrator and his/her staff especially in keeping daily records of students, in analyzing students' attendance records, and in marking students' scripts and recording results. Through this, much time is saved and utilized in other directions for effective school administration.

## **Location and Effective Secondary School Administration**

Writing on the importance of school location, Oweeye & Yara (2011) found out that it is one of the potent factors that influence the distribution of educational resources. They conceptualization urban environment as those which have high population density containing a high variety of beauty and common place views, citing of hotels, recreational centers, markets, banks and goo network as being present in the urban environment. Rural environment on the other hand is identified as being characterized by low population density containing a low variety and isolated place views—characterized by subsistence mode of life, monotonous and burden-some. As a corollary of the above, teachers do not accept postings to rural areas because their conditions are not up to the expected standard as the social life in the areas is virtually restricted as a result of inadequate amenities, deficient facilities, playgrounds are without equipment, libraries are without books, while laboratories are glorified ones.

In addition, more school facilities and services tend to be concentrated in urban schools; teachers with experience and highest training are posted to largest cities and even more noticeable to the capitals. These and more findings abound on the disparity in the quality of teachers in urban schools compared to those in the rural areas which consequently affects students' academic attainment (Oweeye and Yara, 2011).

## **Principals' Application of ICT in School Administration**

An increasing number of scholars agree that leadership plays a major role in ICT implementation at schools, especially in its integration into the curriculum (Dawson & Rakes 2003). As Pelgrum in Tondeur et al. (2008) stated, "Amongst other things, attitudes of school principals play a role in determining to what extent computers are used." The attitudes of participants who are involved in an educational innovation play a role in determining to what degree and with what speed change will be effected. Pelgrum's research showed that principals with very positive attitudes towards the usage of computers tended to influence their teaching staff by emphasizing the importance of computer-integrated learning. According to Mulkeen (2003), ICT training received by teachers is not sufficient to an effective ICT integration in the curriculum if teachers are not supported by the leadership of their school principals.

Since the use of ICT by an individual can be encouraged by training, scholars note that school principals should be provided with ICT training specifically targeted at technology integration into the curriculum. With respect to this issue, Dawson & Rakes (2003) found evidence that technology integration into the classroom is influenced by the type and the amount of technology training received by principals.

## **Impact of School Location on Principals' Application of ICT in Secondary School Administration**

Rural-urban location has been found all over the world to be an important indicator or differences in school administration, indicated through a review of text intelligence carried out among rural and urban principals all over the world that school located in rural environment differ in terms of performance when compared to their urban counterparts (Asihene, 2009). The reality of the rural-urban disparity, however, is that some principals find it difficult to accept the application of ICT in schools located in the rural communities and do everything to get them into the well-endowed, "famous", or prestigious schools located in urban centers where they believe that the needed technology is available (Asihene,

2009). All things being equal, all principals in Nigeria schools have equal opportunity to do well in school and also access ICT facilities. However, application of ICT in our secondary schools can guarantee better technological facilities and access to its application than schools in rural settings is a significant factor that directly affects principals' administration and educational opportunities.

Appiah (2009) stated that the greatest problem militating against educational achievement is the urban/rural disparity in the distribution of trained teachers, distribution of materials, inadequate facilities and low morale of teachers and lack of supervision. Many parents in the rural are not able to make any meaningful contribution to the improvement of facilities in the schools. Educational structures in most developing countries, in addition to being too profound, are also very unbalanced generally. In effect, there are two systems: urban system and rural system. The practical effect of this dual system according to him indicates that rural children who often comprise 70% of a nation's children have smaller chance than their urban counterparts of entering and completing primary school much less than secondary school or university.

## **Method**

An Expost-Facto design was used for this study. The research was conducted in Akwa Ibom State. The population of this study comprised of all the Principals and Vice-Principals in Public Secondary Schools in Akwa Ibom State. A stratified random sampling technique was used to draw the sample of 535 secondary school administrators comprising 123 principals and 412 vice principals for the study. The Main Instrument used in this study was questionnaire titled "Urban and Rural Principals' Application of ICT in Secondary School Administration Questionnaire (URPAISSAQ)". Face validation of the instrument was carried out by experts in the field. To establish the reliability of the instrument, internal consistency reliability test was carried out using Cronbach Alpha technique and the level of reliability coefficient was 0.81. This level (0.81) of coefficient proved high level of reliability of the research instrument. Research questions were answered using descriptive statistics (frequency distribution and percentage analysis) while the research hypothesis was tested using independent t-test at .05 level of significance.

## **Results**

### **Research question one**

The research question sought to find out the level of school administrative effectiveness in the urban and rural areas of Akwa Ibom State. In order to answer the research question, percentage analysis was performed on the data collected as shown in table 1.

**Table 1: Percentage analysis of the level of school administrative effectiveness in the urban and rural areas of Akwa Ibom State**

EXTENT	FREQUENCY	PERCENTAGE
VERY HIGH LEVEL	175	32.71
HIGH LEVEL	193	36.07**
LOW LEVEL	92	17.20
VERY LOW LEVEL	75	14.02*
<b>TOTAL</b>	<b>535</b>	<b>100%</b>

\*\* The highest percentage frequency

\* The least percentage frequency

**SOURCE: Field Survey**

The above table 1 presents the percentage analysis of the level of school administrative effectiveness in the urban and rural areas of Akwa Ibom State. From the result of the data analysis, it was observed that the highest percentage 193(36.07%) of the respondents affirmed that the level is high while the least percentage 75(14.02%) of the respondent affirmed that the level of school administrative effectiveness in the urban and rural areas of Akwa Ibom State is very low.

### **Research question two**

The research question sought to find out the level of principals' application of ICT in secondary school administration in the urban and rural areas of Akwa Ibom State. In order to answer the research question, percentage analysis was performed on the data collected as shown in table 2.

**Table 2: Percentage analysis of the level of principals' application of ICT in secondary school administration in the urban and rural areas of Akwa Ibom State**

EXTENT	FREQUENCY	PERCENTAGE
VERY HIGH LEVEL	26	4.86*
HIGH LEVEL	42	7.85
LOW LEVEL	115	21.50
VERY LOW LEVEL	352	65.80**
<b>TOTAL</b>	<b>535</b>	<b>100%</b>

\*\* The highest percentage frequency

\* The least percentage frequency

**SOURCE: Field Survey**

The above table 2 presents the percentage analysis of the level of principals' application of ICT in secondary school administration in the urban and rural areas of Akwa Ibom State. From the result of the data analysis, it was observed that the highest percentage 352(65.80%) of the respondents affirmed that the level is very low while the least percentage 26(4.86%) of the respondents affirmed that the level of principals' application of ICT in secondary school administration in the urban and rural areas of Akwa Ibom State is very high.

### **Research question three**

The research question sought to find out the difference between rural and urban principals' application of ICT in Secondary School administration in Akwa Ibom State. In order to answer the research question, descriptive statistics analysis was performed on the data collected as shown in table 3.

**TABLE 3: Descriptive statistics of the difference between rural and urban principals' application of ICT in Secondary School administration in Akwa Ibom State**

Group	N	X	Mean Diff.
Urban	268	15.18	3.00*
Rural	267	12.18	

**\*Remarkable Difference**

The above table 3 presents the descriptive statistics of the difference between rural and urban principals' application of ICT in Secondary School administration in Akwa Ibom State. From the results, it was observed that urban principals' application of ICT (15.18) is higher than that of the rural principals' (12.18). This proves that urban principals are more knowledgeable of application of ICT than rural and urban principals in Secondary School administration in Akwa Ibom State

**Hypothesis Testing**

**Hypothesis three:** The null hypothesis states that there is no significant difference between rural and urban principals' application of ICT in Secondary School administration in Akwa Ibom State. In order to test the hypothesis, independent t-test analysis was used to analyze the data. (See table 3).

**TABLE 3: Independent T-Test Analysis of the Difference between Rural and Urban Principals' Application of ICT in Secondary School Administration in Akwa Ibom State.**

Variable	N	$\bar{X}$	SD	t
Urban	268	15.18	1.11	33.76*
Rural	267	12.18	0.94	

**\*Significant at 0.05 level; df = 532; N= 535; critical t-value 1.960**

The above table presents the obtained t-test-value as 33.76. This value was tested for significance by comparing it with the critical t-value (1.960) at 0.05 alpha level with 532 degree of freedom. The obtained t-value (33.76) was greater than the critical t-value (1.960). Hence, the result was significant. The result means that there is significant difference in principals' application of ICT in Secondary School administration based on location. The result was in agreement with the research finding of Asihene, (2009), who avowed that the reality of the rural-urban disparity, however, is that some principals find it difficult to accept the application of ICT in schools located in the rural communities and do everything to get them into the well-endowed, "famous", or prestigious schools located in urban centers where they believe that the needed technology is available. However, application of ICT in our secondary schools can guarantee better technological facilities and access to its application than schools in rural settings is a significant factor that directly affects principals' administration and educational opportunities. The significance of the result caused the null hypotheses to be rejected while the alternative one was accepted.

## Conclusion

From the result of the findings, it was concluded that the use of information Communication Technology (ICT) can improve education quality, expand learning opportunity and makes education accessible. Also, school location is one of the potent factors that influence the distribution of educational resources. It was also averred that school located in rural environment differs in terms of performance when compared to their urban counterparts. Therefore, the study concluded that there is significant level of school administrative effectiveness in the urban and rural areas of Akwa Ibom State. There is significant level of principals' application of ICT in secondary school administration in the urban and rural areas of Akwa Ibom State. Also, there is significant difference between rural and urban principals' application of ICT in Secondary School administration in Akwa Ibom State.

## Recommendations

1. The Akwa Ibom State Government or its agency supervising secondary schools should show more interest in imbibing information communication technology (ICT) and in supplying the necessary ICT facilities to secondary schools, especially in the rural areas, to facilitate effective school administration.
2. Government should also improve on the level of training of rural principals, teachers on ICT and other personnel through induction courses, refreshers courses, seminars and workshops.
3. Government should provide well-equipped dedicated classrooms and necessary technological infrastructures to public schools to enhance effective administration by principals.
4. Policy makers and school principals can plan and support the participation of teachers in integration-focused training activities, whose impact on the overall usage of ICT in subject teaching is stronger than the impact of basic ICT skills courses.



## REFERENCES

- Adeyemi, F. O. and Olaleye, F. O. (2010). Information Communication and Technology (ICT) for the Effective Management of Secondary Schools for Sustainable Development in Ekiti State, Nigeria. *American-Eurasian Journal of Scientific Research*, 5(2):106-113.
- Appiah, E. (2009). Information Communication and Technology (ICT) and the Challenges of Ideation in Graphic Design: An Activity Theory Focus. *International Journal of Computer Applications* 63(6): 13-23
- Arinze, F. O., Okonkwo, E. N. and Iwunor, A. N. (2012). Information and Communication Technology (ICT) Application in Secondary Schools and Students' Academic Performance in Social Studies. *An International Multidisciplinary Journal, Ethiopia*, Vol. 6 (4); 266-278
- Asihene, G. N. (2009). *The role of core administrator in the school effectiveness if ICT application in Ghanaian senior high schools (Master's thesis)*. Department of General Art Studies, Kwame Nkrumah University of Science and Technology, Kumasi, Ghana.
- Ibe-Bassey, G.S. (2000). *Principle and Practice of Instructional Communication*. Uyo: Dorand publishers, Nigeria.
- Inyang-Abia, M. E. (2004). *Essentials of Educational Technology*. Calabar: Wusen publishers limited, Nigeria.
- Murray, I. (2011). *ICT skills and employability needs at the LIS programme Kuwait: A literature review*. *New Library World* 112 (11/12): 499-512
- Murray, T. E. (2011). The Specialist. *Journal of Library Administration*. 53 (1), 274-282.
- Nwaka, N. G. (2010). Secondary school administration in Anambra State today: Challenges and the way forward. *An International Multi-Disciplinary Journal*, 4(2): 384-397.