



**ICT AN INDISPENSABLE TOOL IN EFFECTIVE
GUIDANCE/COUNSELLING SERVICES FOR SUSTAINABLE
EDUCATIONAL DEVELOPMENT IN SECONDARY SCHOOLS
IN THE 21ST CENTURY IN IMO STATE, NIGERIA**

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Abstract:

The study investigated ICT as an indispensable tool in effective guidance/counselling services for sustainable educational development in secondary schools in the 21st century in Imo State, Nigeria. Three research questions with corresponding three null hypotheses were formulated for the study. The population of the study is the 314 guidance/counsellors in the 314 public secondary schools in Imo State, Nigeria. The purposive sampling technique was adopted in order to use the population as the sample. A self-designed instrument titled "ICT as an Indispensable Tool for Effective Guidance and Counselling Scale" (ICTITGCS). Face and content validities were ensured. The Cronbach alpha statistics was used to establish the reliability coefficient of 0.84. Mean, standard deviation was used to answer the research question while z-test statistics was used to test the null hypotheses at an alpha level of 0.05. It was found out that: ICT is used to get related information on students' problems, ICT is used for quick analysis of students problems, ICT is used to interview students in order to elicit information, ICT allows quick access to students as needed, ICT provides on the spot report of interpretation of students problem, Students that are shy can convey their problems to the counsellor through ICT. Moreso, ICT use is hindered by lack of fund, lack of power supply, lack of ICT complaint guidance/counsellors. It was recommended among others that: Guidance and counselling centres in the school should endeavour to channel efforts in the use of ICT for information retrieval, interpretation of students problems and as well as to report back to students

Keywords: effective guidance, counselling, sustainable education development, secondary schools

Introduction

The students, teachers and principals have to be in their right frame of mind to be able to bring out the best in any responsibility that is assigned to them. A counsellor could be one who is highly experienced to help another one to get out of problem. A counsellor offers help services to those who on their own could not help themselves out of such problems. A guidance and counsellor outside the talent endowment must have studied guidance and counselling in the higher institutions of learning. The guidance and counsellors do not solve the problems for the client but shows the client the easiest way out of his/her problems. Guidance and counselling services for students promotes their social, emotional physiological, spiritual and academic well-being. Guidance and Counselling (2011) has it that counselling aims at helping the client understand and accept themselves "as they are" and to help the student to help himself. Dunsmoor and Miller in Guidance and Counselling (2011) outlined the purpose of guidance and counselling as:

- To give the student information on matters important to success
- To get information about student which will be of help in solving his problems
- To establish a feeling of mutual understanding between student and teacher
- To help the student work out a plan for solving his difficulties
- To encourage and develop special abilities and right attitudes
- To inspire successful endeavour toward attainment
- To assist the student in planning for educational and vocational choices.

These loft and paramount purposes may not be properly achieved if the guidance and counselling are stereotyped to the conventional method of guidance and counselling but could be possible with the use of information communication technology system.

The importance of guidance and counselling programme in secondary schools, include bringing to the students an increased understanding of educational, vocational and social information needed to make wise choices (Oye, Obi, Mohd & Bernice, 2012). European Centre for the Development of Vocational Training (2005) has it that one of the challenges that every guidance system currently faces is how to make best use of ICT by guidance practitioners, particularly in providing services for their clients. ECDVT (2005) submitted that as well as the basic technical skills, guidance practitioners

need specific guidance related ICT competences in order to carry out traditional activities in new ways and also introduces some completely new guidance activities.

The world has turned into a global village through high level of intra-connectivity and inter-connectivity that information communication has brought. The use of electronics in the day to day activities in the school has gone a long way to reduce stress, save time and maximize output though with its attendant hazardous effects. Information they say is power. Anybody that is informed is in the right slate to provide required answer or solution to issues at hand. Information communication is the process of sharing knowledge, ideas, facts, values, discoveries and experiences through direct or indirect interaction with the information source.

Information communication should be such that vital information is made available to those in need of it without any form of barrier. Wikipedia The Free Encyclopedia (2016) opined that Information and Communication Technology is a unified communication and the integration of telecommunications (telephone lines and wireless signals) computers as well as necessary enterprise software, middleware, storage, and audio-visual systems, which enables users to access, store, transmit, and manipulate information. Information communication technology can be defined as the use of software or hardware to disseminate and receive information. Technologies that share information in the software systems are discs, cassettes, flash drive, and internet information while the hardware information communication is done through television, radio, projector, computer, telephone, printers and satellites. Information in this respect must be communicated or shared with the help of technological gadgets.

Techopedia (2016) saw information and communication technology (ICT) as the technology used to handle telecommunications, broadcast media, intelligent building management systems, audio-visual processing and transmission systems, and network-based control and monitoring functions. WikiBooks (2016) saw ICT as a set of technological tools and resources used to communicate, and to create, disseminate, store, and manage information.

Elmaifi (2014) reported that an absolute majority of teachers in Europe (90%) claim to use ICT to do tasks, such as preparing lessons, sequencing classroom activities etc. the author also has it that ICT helps the teachers to work in teams and share ideas related to schools curriculum. Underwood in Elmaifi (2014) submits that changes that take full advantage of ICT will only happen slowly over time, and only if teachers continue to experiment with new approaches. In the same slate, Ofsted in Elmaifi (2014) asserted that ICT allow a higher quality lessons through collaboration with teachers in planning and preparing resources. Passey in Elmaifi (2014) made it categorically clear

that new technologies encourage independent and active learning, and students' responsibility for their own learning. Saverinus (2008) identified the aim and objectives of ICT in schools as:

- To implement the principle of life-long learning/education
- To increase a variety of educational services and medium/method
- To promote equal opportunities to obtain education and information
- To develop a system of collecting and disseminating educational information
- To promote technology literacy of all citizens, especially for students
- To develop distance education with national contents
- To promote the culture of learning at school (development of learning skills, expansion of optional education, open source of education, etc)
- To support schools in sharing experience and information with others.

It is worth nothing that ICT promotes long life-learning, enhanced information medium, bridges distance of communication, and increases information connectivity with the schools and the outside world. Wilson in Vinluan (2011) stressed that the most obvious way internet can be used is in information source. ICT has been proven to be beneficial in supporting career planning and assessment activities (Vinluan, 2011).

Larrabee and Blanton in Vinluan (2011) stated that education of career counsellors can be enhanced by Information Communication Technology. Vinluan (2011) found out that counsellors use ICT for writing letters and reports, calling parents, and keeping records. He further stressed that ICT proficiency should be a required skills for professional counsellors. ICT is a quick and sure means to carry out measurement and evaluation of school programme. Computer-based test is devoid and devout of bias but in addition introduces acumen and acuity in the process of measurement and reporting for a valued conclusion.

Garb in Vinluan (2011) asserted that computer-administered interviews and rating scales were more comprehensive and reliable and less biased than evaluations routinely conducted in clinical practice. Communication between counsellors and their clientele can be via e-mail, text-message, phone call, video call, Facebook, 2go, Whatsapp, and fax.

To this end, Watts in Watts (2001) stressed that some guidance services have moved away from long interviews to an open-access model, with information rooms containing ICT and other resources supported by brief informal interviews, and with long interviews being available as a residual resource to those who need them.

Statement of Problem

Information Communication Technology has been proven by researches and researchers to have contributed to a large extent in the successes recorded in the banking sector, industries, bureau for information, and in research and development. In the education sector, ICT has been variously and seriously used in the admission processes, teaching processes, research and development, but it seems little effort has been made for the full implementation of ICT in the guidance and counselling services for sustainable educational development in secondary schools in the 21st century in Imo State, Nigeria. If urgent and cogent attention is not given to the use of ICT in the effective guidance and counselling services in secondary schools in Imo State, Nigeria, counsellors may not arm themselves with current and vital information, clients may not be bold to divulge needed information, counsellors may not be able to reach out to a large number of clients, assessment may be widely hampered, students may not face their academic activities with a right frame of mind and teachers will spend most of the teaching and learning hours trying to prepare the students for active learning. Therefore, the researcher is bordered on the ways ICT could be effectively used, the type of ICT mediums that could be used and the challenges in using ICT for effective guidance and counselling services in secondary schools.

Aim and Objectives

The aim of the study is to establish the use of ICT in effective guidance and counselling services in the 21st century for sustainable educational development in secondary schools in Imo State, Nigeria.

- 1) Find out the ways ICT can be used in the effective guidance/counselling services for sustainable educational development in secondary schools in the 21st century in Imo State, Nigeria.
- 2) Determine the various ICT mediums needed in the effective guidance/counselling services for sustainable educational development in secondary schools in the 21st century in Imo State, Nigeria.
- 3) Ascertain the challenges associated with the use of ICT in guidance/counselling services for sustainable educational development in secondary schools in the 21st century in Imo State, Nigeria.

Research Questions

The following research questions guided the study.

- 1) *What are the ways ICT can be used in the effective guidance/counselling services for sustainable educational development in secondary schools in the 21st century in Imo State, Nigeria?*
- 2) *What are the various ICT mediums needed in the effective guidance/counselling services for sustainable educational development in secondary schools in the 21st century in Imo State, Nigeria?*
- 3) *What are the challenges associated with the use of ICT in guidance/counselling services for sustainable educational development in secondary schools in the 21st century in Imo State, Nigeria?*

Hypotheses

The following hypotheses were posed and tested at 0.05 alpha level.

- 1) There is no significant difference between the mean ratings of male and female guidance/counsellors on the ways ICT can be used in the effective guidance/counselling services for sustainable educational development in secondary schools in the 21st century in Imo State, Nigeria.
- 2) There is no significant difference between experienced and less experienced guidance/counsellors on the various ICT mediums needed in the effective guidance/counselling services for sustainable educational development in secondary schools in the 21st century in Imo State, Nigeria.
- 3) There is no significant difference between experienced and less experienced guidance/counsellors on the challenges associated with the use of ICT in guidance/counselling services for sustainable educational development in secondary schools in the 21st century in Imo State, Nigeria.

Methodology

The study adopted a descriptive research design. The population of the study is all the 314 (205 female and 109 male, 194 experienced and 120 less experienced) guidance/counsellors in senior secondary school students in the 314 public secondary schools in Imo State. A purposive sampling technique was used to arrive at the sample size. A self-designed instrument titled "ICT as an Indispensable Tool for Effective

Guidance and Counselling Scale” (ICTITGCS). The instrument has two parts. Part A consists of the demographic factors while part B contains non cognitive and non-standardized ICT and guidance and counselling items. This section is structured after the modified Likert four points rating scales of Strongly Agree (4-points), Agree (3-points), Disagree (2-points) and Strongly Disagree (1-point). Face and content validities were ensured. The Cronbach alpha reliability was used to establish internal consistency reliability coefficient of 0.84. Mean, standard deviation and rank order statistics was used to answer the research question and z-test statistics was used to test the null hypotheses at an alpha level of 0.05.

Results

Research Question One

What are the ways ICT can be used in the effective guidance/counselling services for sustainable educational development in secondary schools in the 21st century in Imo State, Nigeria?

Table 1: Weighted mean, standard deviation and rank order statistics of male and female guidance/counsellor on the ways ICT can be used in the effective guidance/counselling services for sustainable educational development in secondary schools in the 21st century in Imo State, Nigeria

S/N	Items	Male 109		Female 205		Mean set $\bar{X}\bar{X}$	Remark
		\bar{X}_1	SD_1	\bar{X}_2	SD_2		
1	ICT is used to get related information on students problems	2.78	0.98	2.59	1.04	2.72	Agreed
2	ICT is used for quick analysis of students problems	2.88	1.07	2.69	1.14	2.82	Agreed
3	ICT is used to interview students in order to elicit information	2.76	1.10	2.83	1.11	2.78	Agreed
4	ICT allows quick access to students as need	2.74	1.09	2.72	1.09	2.74	Agreed
5	ICT provides on the spot report of interpretation of students problem	2.70	1.04	2.98	1.06	2.78	Agreed
6	Students that are shy can convey their problems to the counsellor through ICT	2.81	1.00	2.77	0.98		Agreed
	Aggregate mean	2.78	1.05	2.76	1.07	3.84	

Table 1 showed that all the items have their various mean values above the criterion mean value of 2.50, and were therefore agreed by the respondents as the ways ICT can

be used in the effective guidance/counselling services for sustainable educational development in secondary schools in the 21st century in Imo State, Nigeria.

Research Question Two

What are the various ICT mediums needed in the effective guidance/counselling services for sustainable educational development in secondary schools in the 21st century in Imo State, Nigeria?

Table 2: Weighted mean, standard deviation and rank order statistics experienced and less experienced guidance/counsellors on the various ICT mediums needed in the effective guidance/counselling services for sustainable educational development in secondary schools in the 21st century in Imo State, Nigeria

S/N	Items	Experienced 194		Less experienced 120		Mean set $\bar{X}\bar{X}$	Remark
		\bar{X}_1	SD_1	\bar{X}_2	SD_2		
		1	Computer	2.78	0.98		
2	Projectors	2.88	1.07	2.69	1.14	2.82	Agreed
3	Television	2.76	1.10	2.83	1.11	2.78	Agreed
4	Compact disc	2.74	1.09	2.72	1.09	2.74	Agreed
5	e-mail	2.70	1.04	2.98	1.06	2.78	Agreed
6	Facebook	2.56	0.99	2.66	1.09	2.61	Agreed
7	Video conferencing	3.01	0.89	3.33	0.78	3.17	Agreed
8	Radio	3.05	0.77	2.91	0.99	2.98	Agreed
9	Slides	2.51	1.08	3.21	0.67	2.86	Agreed
	Aggregate	2.78	1.00	2.88	0.99	2.83	

Table 2 revealed that all the times have their various mean values above the criterion mean value of 2.50, and were therefore agreed by the respondents as the various ICT mediums needed in the effective guidance/counselling services for sustainable educational development in secondary schools in the 21st century in Imo State, Nigeria.

Research Question Three

What are the challenges associated with the use of ICT in guidance/counselling services for sustainable educational development in secondary schools in the 21st century in Imo State, Nigeria?

Table 3: Weighted mean, standard deviation and rank order statistics of experienced and less experienced guidance/counsellors on the challenges associated with the use of ICT in guidance/counselling services for sustainable educational development in secondary schools in the 21st century in Imo State, Nigeria

S/N	Items	Experienced 194		Less experienced 120		Mean set $\bar{X}\bar{X}$	Remark
			SD_1		SD_2		
		\bar{X}_1		\bar{X}_2			
1	Lack of fund	2.78	0.98	2.59	1.04	2.72	Agreed
2	Lack of ICT complaint guidance and counsellors	2.88	1.07	2.69	1.14	2.82	Agreed
3	Lack of power supply	2.76	1.10	2.83	1.11	2.78	Agreed
4	Lack of ICT materials	2.74	1.09	2.72	1.09	2.74	Agreed
5	Lack of adequate counselling centres	2.70	1.04	2.98	1.06	2.78	Agreed
	Aggregate (\bar{X}_1)	2.77	1.06	2.76	1.09	2.77	

Table 3 revealed that all the times have their various mean values above the criterion mean value of 2.50, and were therefore agreed by the respondents as the challenges associated with the use of ICT in guidance/counselling services for sustainable educational development in secondary schools in the 21st century in Imo State, Nigeria.

Hypothesis One

There is no significant difference between the mean ratings of male and female guidance/counsellors on the ways ICT can be used in the effective guidance/counselling services for sustainable educational development in secondary schools in the 21st century in Imo State, Nigeria.

Table 4: z-test calculation of the difference between the mean ratings of male and female guidance/counsellors on the ways ICT can be used in the effective guidance/counselling services for sustainable educational development in secondary schools in the 21st century

Category	N	mean	Sd	Df	z.cal.	zcrit.	Remark
Male guidance/counsellors	109	2.78	1.05	312	0.15	1.96	Accepted
Female guidance/counsellors	205	2.76	1.07				

Table 4 showed that male guidance/counsellors have mean and standard deviation scores of 2.78 and 1.05, while female guidance/counsellors have mean and standard deviation scores of 2.76 and 1.07 respectively. With a degree of freedom of 312, at an alpha level of 0.05, the z-calculated value of 0.15 is less than the z-critical value of 1.96.

Therefore, the null hypothesis is accepted. By implication, here is no significant difference between the mean ratings of male and female guidance/counsellors on the ways ICT can be used in the effective guidance/counselling services for sustainable educational development in secondary schools in the 21st century in Imo State, Nigeria.

Hypothesis Two

There is no significant difference between experienced and less experienced guidance/counsellors on the various ICT mediums needed in the effective guidance/counselling services for sustainable educational development in secondary schools in the 21st century in Imo State, Nigeria.

Table 5: z-test calculation of the difference between the mean ratings of experienced and less experienced guidance/counsellors on the various ICT mediums needed in the effective guidance/counselling services for sustainable educational development in secondary schools in the 21st century

Category	N	mean	Sd	Df	z.cal.	zcrit.	Remark
Experienced guidance/counsellors	194	2.78	1.00	312	0.83	1.96	Accepted
Less experienced guidance/counsellors	120	2.88	0.99				

Table 5 showed that experienced guidance/counsellors have mean and standard deviation scores of 2.78 and 1.00, while less experienced guidance/counsellors have mean and standard deviation scores of 2.88 and 0.99 respectively. With a degree of freedom of 312, at an alpha level of 0.05, the z-calculated value of 0.83 is less than the z-critical value of 1.96. Therefore, the null hypothesis is accepted. By implication, there is no significant difference between experienced and less experienced guidance/counsellors on the various ICT mediums needed in the effective guidance/counselling services for sustainable educational development in secondary schools in the 21st century in Imo State, Nigeria.

Hypothesis Three

There is no significant difference between experienced and less experienced guidance/counsellors on the challenges associated with the use of ICT in guidance/counselling services for sustainable educational development in secondary schools in the 21st century in Imo State, Nigeria.

Table 6: z-test calculation of the difference between the mean ratings experienced and less experienced guidance/counsellors on the challenges associated with the use of ICT in the effective guidance/counselling services for sustainable educational development in secondary schools in the 21st century

Category	N	Mean	Sd	Df	z.cal.	zcrit.	Remark
Experienced guidance/counsellors	194	2.77	1.06	312	0.08	1.96	Accepted
Less experienced guidance/counsellors	120	2.76	1.09				

Table 6 showed that experienced guidance/counsellors have mean and standard deviation scores of 2.77 and 1.06, while less experienced guidance/counsellors have mean and standard deviation scores of 2.78 and 1.09 respectively. With a degree of freedom of 312, at an alpha level of 0.05, the z-calculated value of 0.08 is less than the z-critical value of 1.96. Therefore, the null hypothesis is accepted. By implication, there is no significant difference between experienced and less experienced guidance/counsellors on the challenges associated with the use of ICT in guidance/counselling services for sustainable educational development in secondary schools in the 21st century in Imo State, Nigeria.

The Ways ICT Can Be Used For Effective Guidance/Counselling Services for Sustainable Educational Development

The study revealed that ICT is used to get related information on students' problems, ICT is used for quick analysis of students problems, ICT is used to interview students in order to elicit information, ICT allows quick access to students as needed, ICT provides on the spot report of interpretation of students problem, Students that are shy can convey their problems to the counsellor through ICT. This importance of ICT is in line with Elmaifi (2014) that an absolute majority of teachers in Europe (90%) claim to use ICT to do tasks, such as preparing lessons, sequencing classroom activities etc. Garb in Vinluan (2011) asserted that computer-administered interviews and rating scales were more comprehensive and reliable and less biased than evaluations routinely conducted in clinical practice. Larrabee and Blanton in Vinluan (2011) stated that education of career counsellors can be enhanced by Information Communication Technology. Vinluan (2011) found out that counsellor's use ICT for writing letters and reports, calling parents, and keeping records. He further stressed that ICT proficiency should be a required skills for professional counsellors.

The Various ICT Mediums Needed in the Effective Guidance/Counselling Services for Sustainable Educational Development

The study revealed that the ICT medium needed for effective guidance/counselling services are: computer, projectors, television, compact disc, e-mail, Facebook, video conferencing, radio and slides. The study agrees with the report of Babajide, Bolaji, Bryers, Bandele and Ofodu in Ajayi and Ekundayo (2009) that ICT facilities are: radio; television; computers, overhead projectors; optical fibres, fax machines, CD-Rom, internet, electronic notice board, slides, digital multimedia, video/VCD machine and so on.

The Challenge Associated With the Use of ICT in Guidance/Counselling Services for Sustainable Educational Development in Secondary Schools in the 21st Century

The study found out that the challenges on the use of ICT in guidance/counselling services for sustainable education development are: lack of fund, lack of ICT complaint guidance and counsellors, lack of power supply, lack of ICT materials, lack of adequate counselling centres. These findings are in tandem with the study conducted by Ajayi and Ekundayo (2009) that the challenges of ICT are irregular power supply, inadequate computer literate teachers, high cost of purchasing computers in schools, inadequate facilities to support full application of the ICT and lack of fund.

Recommendations

Based on the conclusion of the study, it is recommended that:

- 1) Guidance and counsellors in the school should endeavour to channel efforts in the use of ICT for information retrieval, interpretation of students problems and as well to report back to students
- 2) The ICT facilities like television, radio, computer, overhead projector, CD-ROM, internet, electronic notice board, slides, digital multimedia, video/VCD machine should be made available by government, non-governmental, philanthropic, and the ministry of education for effective guidance/counselling services for sustainable educational development.
- 3) Guidance and counsellors should be sent for all-round ICT training in order to be conversant and proficient in the use of ICT.
- 4) The students should be allowed free access to ICT materials mostly when they want to use it for guidance and counselling purposes.

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