Perception of Home Economics Teachers towards ICT Utilization in Teaching and Learning of Home Economics in Urban Secondary Schools, Nsukka, Enugu State

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Abstract
The study focused on the perception of Home Economics teachers towards ICT utilization in teaching and learning of Home Economics in Urban Secondary Schools, Nsukka, Enugu State. Specifically, the study aimed at finding out the extent to which Home Economics teachers make use of ICT in teaching and learning of Home Economics in Urban Secondary Schools, Nsukka, Enugu State, and the challenges facing Home Economics teachers in ICT utilization in teaching and learning of Home Economics in Urban Secondary Schools, Nsukka, Enugu State. Two research questions guided the study. The population for the study was 25 Home Economics teachers from Urban Secondary Schools, Nsukka. Questionnaire was used for data collection, consisting of 22 items used to elicit responses from the respondents. Data collected were analyzed using mean and standard deviation. The findings revealed that Home Economics teachers in Urban Secondary Schools, Nsukka do not make use of ICT in teaching and learning; it was also revealed that there are challenges facing Home Economics teachers in the utilization of ICT in teaching and learning, which includes: lack of ICT facilities, and among others. Recommendations were made to remedy the situation which includes: Federal Ministry of Mines and Power should work towards stabilizing electricity supply in Nigeria and among others.
Key words: Perception, Home Economics, Home Economics Teachers, Teaching and Learning, ICT, Utilization

Introduction

The world today is fast becoming a global village as a result of the present developments in Information and Communication Technology (ICT). It has increased most of our intellectual horizon and technological know-how. Information and Communication Technology (ICT) is an extended term for information technology (IT) which stresses the role of unified communications and the integration of telecommunications (telephone lines and wireless signals), computers as well as necessary enterprise software, middleware, storage, and audio-visual (Brakel and Chisenga, 2003). Information and

Communication Technologies (ICT) are electronic technologies used for information storage and retrieval. It is necessary to determine the extent to which Home Economics teachers perceive ICT utilization in teaching and learning.

According to Yusuf, (2005), perception is the process of using the senses to acquire information about the surrounding environment or situation. Perception of teachers towards ICT utilization in teaching and learning, and the ability to establish an interaction between technological innovation and human values, partly determine development and globalization. Home Economics teachers' perception towards ICT utilization in teaching and learning of Home Economics is low (Nwagwu, 2006). Many countries now regard understanding ICT and mastering the basic skills and concepts of ICT as part of the core of education, alongside reading, writing and numeracy. UNESCO aims to ensure that all countries, both developed and developing, have access to the best educational facilities necessary to prepare young people to play full roles in modern society. It is very necessary and important for Home Economics teachers to embrace and appreciate ICTs because, Information and Communication Technology (ICT) has become, within a very short time, one of the basic building blocks of education and modern society (Suithwood, 2004). Some of the importance of ICT in teaching and learning of Home Economics in secondary schools according to Wima & Lawler, (2007) are listed below:

It will improve students' achievements and performances in Home Economics activities. The leadership of ICT will be improved and ICT priority for development will be high. Leaders are providing vision for the place of ICT in learning and are investing significantly in infrastructure, resources and staff training. Investment in ICT resources will improve teaching, and make ICT part of everyday learning. Many schools are seeking to make ICT resources more readily available to students in classrooms. It will systematically evaluate the impact of ICT in improving learning and raising standards across the curriculum. Using ICT will contribute positively to the personal development and future economic well-being of students. It will develop students' skills of working independently and cooperatively. It will support students with learning difficulties, enabling them to make at least the progress expected. Appropriate modifications were made to hardware to ensure good access to learning for disabled students. It will equip students with internet skills and knowledge. Most teachers will have good subject knowledge in some aspects of ICT and also confident and competent users of it. Increasingly, teaching assistants are acquiring good subject knowledge; students with learning difficulties or disabilities make good progress where teaching assistants have the necessary subject knowledge and skills to support them effectively. Assessment of students' performance will be made easy through the use of ICT facilities.

ICT will establish students' attainment on entry into secondary school or take into account their achievements outside school. It will increase the use of ICT in other subjects in secondary schools. ICTs have the potential to accelerate, enrich, and deepen skills, to motivate and engage students, to help relate school experience to work practices, create economic viability for tomorrow's workers, as well as strengthening teaching and learning of Home Economics in secondary schools. In this technology-driven age, ICT competence helps everyone to survive. The demand for computer/ICT literacy is increasing in Nigeria, because employees realized that computers and other ICT facilities can enhance efficiency. It has created new instructional techniques that use

ICTs to provide different modality of instruments. For the students, ICT use allows for increased individualization of learning. In schools where new technologies are used, students have access to tools that adjust to their attention span and provide valuable and immediate feedback for literacy enhancement. ICT application and use will prove beneficial in improving Nigeria's educational system and giving students a better education. A technologically-advanced workforce will lead to ICT growth in Nigeria, with the potential to improve military technology and telecommunications, media communications, and skilled ICT professionals who will be well-equipped to solve IT problems in Nigeria and other parts of the world. Because of the fundamental importance of ICT in the tasks of teaching and learning today, Home Economics teachers ought to develop interest in ICT and embrace its application in teaching and learning of Home Economics in secondary schools. Teaching and learning are best thought of, not as separate and independent activities, but rather as two sides of the same coin, interconnected and interrelated. According to the result of the research conducted by Ndiku, (2003), on the problems encountered by school personnel in the implementation of computer use in secondary schools in Uasin Gishu District, teachers are too reluctant to respond to global change because of the challenges they face.

Purpose of the Study

The main purpose of this study was to determine the Perception of Home Economics teachers towards ICT Utilization in Teaching and Learning of Home Economics in Urban Secondary Schools, Nsukka, Enugu State. Specifically, this study determined:

1. The extent to which Home Economics teachers make use of ICT in teaching and learning of Home Economics in Urban Secondary Schools, Nsukka, Enugu State.
2. The challenges facing Home Economics teachers in the utilization of ICT in teaching and learning of Home Economics in Urban Secondary Schools, Nsukka, Enugu State.

Research Questions

The following research questions guided the study:

1. Do Home Economics teachers make use of ICT in teaching and learning of Home Economics in Urban Secondary Schools, Nsukka, Enugu State?
2. What are the challenges facing Home Economics teachers in the utilization of ICT in teaching and learning of Home Economics in Urban Secondary Schools, Nsukka, Enugu State?

Methodology

Design of the Study

A descriptive survey research design was used in this study. This research design suited this study since the study sought to ascertain the opinions of respondents on the perception of Home Economics teachers towards ICT utilization in teaching and learning of Home Economics in Urban Secondary Schools, Nsukka, Enugu State.

Area of the Study

This study was carried out in Urban Secondary Schools, Nsukka, Enugu State. This area was chosen because of its proximity to the researcher. Six selected secondary schools were used for the study. They are University Secondary School, Nsukka, Nsukka High School, Nsukka, St. Cyprian Girls Secondary School, Nsukka, St. Theresa’s College, Nsukka, Shalom Academy, Nsukka, and Government Technical College, Nsukka.

Population of the Study

The population of the study was 25 Home Economics teachers from the six selected secondary schools comprising of 4 Home Economics teachers from University Secondary School, Nsukka, 3 Home Economics teachers from Nsukka High School, Nsukka, 4 Home Economics teachers from St. Cyprian Girls Secondary School, Nsukka, 6 Home Economics teachers from St. Theresa's College, Nsukka, 4 Home Economics teachers from Shalom Academy, Nsukka and 4 Home Economics teachers from Government Technical College, Nsukka.

Sample and Sampling Techniques

The sample for this study comprised 25 Home Economics teachers from the six randomly selected schools (4 Home Economics teachers from University Secondary School, Nsukka, 3 Home Economics teachers from Nsukka High School, Nsukka, 4 Home Economics teachers from St. Cyprian Girls Secondary School, Nsukka, 6 Home Economics teachers from St. Theresa's College, Nsukka, 4 Home Economics teachers from Shalom Academy, and 4 Home Economics teachers from Government Technical College, Nsukka). This purposive sample was chosen because they are ICT literates. Due to the small size of the population, all were used for the study.

Instrument for Data Collection

A structured questionnaire was developed and used to collect data for the study. The questionnaire was containing 22 items and was structured in line with the two research questions. The instrument was presented in three sections. Section A sought respondents' personal data, while sections B-C sought responses on the two research questions to elicit information from the respondents. The questionnaire was on a four points scale: Strongly Agree (SA), Agree (A), Disagree (D), and Strongly Disagree (SD) with assigned weight of 4, 3, 2, and 1 respectively.

Validation of Instrument

The instrument was subjected to content and face-validity by three experts from the Department of Computer Education, University of Nigeria, Nsukka, Enugu State. The advice and criticism of these experts were used to modify the instrument.

Reliability of the Instrument

The reliability of the instrument was established by trial testing using Home Economics teachers in Government Secondary School, Obudu, Cross River State; that did not form part of the sample. Cronbach Alpha reliability test was used to determine the internal consistency of the instrument on data obtained. The analyzed data yields a reliability coefficient of 0.84, which showed that the instrument was reliable.

Method of Data Collection

The researcher employed the services of three research assistants to administer the questionnaires to the respondents and ensured that the correct and required responses were made. Twenty-five copies of questionnaires were distributed by hand. All the copies distributed were completed correctly and returned, showing a 100% return rate.

Method of Data Analysis

Statistical Package for Social Sciences (SPSS) was used for data analysis. The data collected were analyzed using mean and standard deviation. Since the items were based on 4 points scale, the acceptable mean score was 2.50. Thus, mean rating of 2.50 and above were considered as agreed, while items with mean rating below 2.50 were considered as disagreed. Respondent opinions were interpreted using real limit of numbers.

Results

Research Question One

Do Home Economics teachers make use of ICT in teaching and learning of Home

Economics in Urban Secondary Schools, Nsukka, Enugu State?

Table 1

Mean and standard deviation of respondents on the extent to which Home Economics teachers make use of ICT in teaching and learning of Home Economics in Urban Secondary Schools, Nsukka, Enugu State

S/N	ITEMS	MEAN	SD	REMARK
1	Home Economics teachers use ICT facilities to teach	2.00	0.72	Disagree
2	ICT facilities are available in my school	1.98	0.74	Disagree
3	Home Economics teachers own computers/laptops	1.86	0.72	Disagree
4	Home economics teachers are computer literates	1.73	0.71	Disagree
5	Home Economics teachers are responding to the global change (Analog-Digital era)	1.66	0.70	Disagree
6	Computer Assisted Instruction is used in my school	1.64	0.77	Disagree
7	Home Economics teachers undergo ICT training	1.57	0.73	Disagree
8	Internet facilities/services are available in my school	1.59	0.81	Disagree
9	Home Economics teachers have ICT skills/knowledge	1.59	0.83	Disagree
10	Home Economics teachers undergo ICT re-training	1.60	0.80	Disagree
11	Home Economics teachers have interest in ICT application	1.96	0.97	Disagree

The data presented in Table 1 revealed that eleven items on the extent to which Home Economics teachers make use of ICT in teaching and learning of Home Economics in Urban Secondary Schools, Nsukka, Enugu State had their mean values ranging from 1.57 to 2.00. This showed that the mean of each of the eleven items was bellow the real limit of 2.50, indicating that Home Economics teachers disagree that they do not make use of ICT in teaching and learning. The table further showed that the standard deviation (SD) of the items were within the range of 0.70 to 0.97 in eleven items indicating that the opinions of the respondents were not far from each other in their responses to the eleven items.

Research Question Two

What are the challenges facing Home Economics teachers in the utilization of ICT in teaching and learning of Home Economics in Urban Secondary Schools, Nsukka, Enugu State?

Table 2

The mean rating and standard deviation of respondents on the challenges facing Home Economics teachers in the utilization of ICT in teaching and learning of Home Economics in Urban Secondary Schools, Nsukka, Enugu State

S/N	ITEMS	MEAN	SD	REMARK
1	There is poor ICT infrastructure in the teaching and learning of Home Economics	3.55	1.48	Agree
2	ICT development and application are not well established in my school	3.03	1.22	Agree

3	Home Economics teachers lack ICT facilities	3.21	1.06	Agree
4	Electricity failure has been a persistent problem militating against ICT application in my school	3.35	0.91	Agree
5	Secondary schools don't offer ICT training programmes	3.34	0.90	Agree
6	Non integration of ICT into secondary school curriculum	3.40	0.85	Agree
7	Poor ICT policy/project implementation strategy in secondary schools	3.41	0.80	Agree
8	Inadequate ICT manpower in secondary schools	3.41	0.79	Agree
9	The cost of ICT facilities/components is too high	3.44	0.77	Agree
10	Home Economics teachers lack ICT skills	3.45	1.42	Agree
11	Poor perception of ICTs among Home Economics teachers	3.40	0.77	Agree

Data presented in Table 2 revealed that eleven items on the challenges facing Home Economics teachers in ICT utilization in teaching and learning of Home Economics had their mean values ranging from 3.03 to 3.55. This showed that the mean of each of the eleven items was above the real limit of 2.50, indicating that the respondents agree that all the eleven items are challenges facing Home Economics teachers in ICT utilization in teaching and learning of Home Economics in Urban Secondary Schools, Nsukka, Enugu State. The table further showed that the standard deviation (SD) of the items were within the range of 0.77 to 1.48 in eleven items, indicating that the opinions of the respondents were not far from each other in their responses to the eleven items.

Discussion of the Findings

This study sought to determine the Perception of Home Economics teachers towards ICT Utilization in Teaching and Learning of Home Economics in Urban Secondary Schools, Nsukka, Enugu State. The findings of the study revealed that Home Economics teachers disagree that they do not make use of ICT in teaching and learning. The findings are: Home Economics teachers do not use ICT facilities to teach, ICT facilities are not available in Urban Secondary Schools, Nsukka, Home Economics teachers do not own computers/laptops, Home Economics teachers are not computer literates, Home Economics teachers are not responding to the global change (Analog-Digital era), Computer Assisted Instruction (CAI) is not utilized in Urban Secondary Schools, Nsukka, Home Economics teachers does not undergo ICT training, internet facilities/services are not available in Urban Secondary Schools, Nsukka, Home Economics teachers do not have ICT skills/knowledge, Home Economics teachers do not undergo ICT re-training, and Home Economics teachers do not have interest in ICT application. These findings are in line with Uwameiye, (2015), who was of the opinion that Home Economics teachers prefer to remain in analog era rather than

responding to the global change, and they are so reluctant and adamant towards the acquisition of ICT skills. This is a serious problem because, the world is fast becoming a global village and everyone needs to respond positively to the change else, you may be left behind (Wima & Lawler, 2007). ICT skills acquisition is a very important skill that Home Economics teachers must acquire in other to fit into the digital era else, they may no longer be useful with time. For this reason, ICT integration into the school curriculum is very important (Plante & Beattie, 2004). In this era, teaching and learning activities should be learners' based and not teacher's based. It is high time Home economics teachers changed their perception towards ICT or get ready for technological displacement.

This study also revealed some of the challenges facing Home Economics teachers in ICT utilization in the teaching and learning of Home Economics. These challenges are listed below: There is poor ICT infrastructure in the teaching and learning of Home Economics, ICT development and application are not well established in Urban Secondary Schools, Nsukka, Home Economics teachers lack ICT facilities, Electricity failure has been a persistent problem militating against ICT application in Urban Secondary Schools, Nsukka, Urban Secondary Schools in Nsukka do not offer ICT training programmes, Non integration of ICT into secondary school curriculum, Poor ICT policy/project implementation strategy in secondary schools, Inadequate ICT manpower in secondary schools, The cost of ICT facilities/components is too high, Home Economics teachers lack ICT skills, and Poor perception of ICTs among Home Economics teacher.

These findings are in line with Okwudishu (2005), who pointed out that there is need for the creation of awareness and use of information and communication technology (ICT) among urban secondary school teachers. Plante and Beattie (2004) are of the opinion that connectivity and ICT integration in urban secondary schools is a task that calls for immediate attention. ICT integration into the school curriculum will go a long way in handling most of these challenges. ICT infrastructure as well as ICT development and application, if established in secondary schools, will create a good impression in the minds of Home Economics teachers (Oduroye, 2005). According to Tyler (1998), lack of ICT knowledge/skills among Home Economics teachers is as a result of lack of ICT training programmes in urban secondary schools. ICT policy/project implementation strategy in urban secondary schools is nothing to write home about. The entire system is ICT handicapped. According to Ndiku, (2003), power failure is one of the major problems encountered by urban secondary school personnel in the implementation of computer use in secondary schools. Availability of ICT facilities and adequate manpower in Urban Secondary Schools, Nsukka, as well as inculcation of positive attitudes in the minds of Home Economics teachers towards ICT utilization in teaching and learning, will go a long way in addressing these issues (Nwagwu, 2006).

Conclusion

The adoption and use of ICTs in secondary schools have a positive impact on teaching, learning, and research of Home Economics. Despite the roles ICT play in education, secondary schools in Nsukka Urban are yet to extensively adopt them for teaching and learning. Efforts geared towards integration of ICTs into the secondary school system, have not had much impact. Problems such as poor policy and project implementation strategies and poor information infrastructure militate against these efforts.

Recommendations

In order to ensure that ICTs are widely adopted and used in Nigeria secondary school systems, the following efforts should be made:

- Efforts should be made by Ministry of Education (at Federal and State levels) to post teachers skilled in ICTs to each secondary school to impart ICT skills on teachers and students, and teachers should be given the opportunity to undergo ICT re-training.
- Government should ensure that ICT policy statements are translated into reality; ICT policy implementation commission should be created; this commission should be funded and given the power to provide ICT facilities in the schools and monitor their use.
- The Federal Ministry of Mines and Power should work towards stabilizing electricity supply in Nigeria.

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