

Strategies for Enhancing Information Communication Technology (ICT) Awareness among Secondary School-Home Economics Teachers in Minna Niger State

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Abstract

This study identified strategies for enhancing information communication technologies (ICT) awareness among secondary school home economics teachers in Minna Niger State. Three research questions were answered. The population was made up of 100 home economics teachers from thirty (30) public and private secondary schools in the area. It was a survey and the instrument was questionnaire. Data were analyzed using frequency and percentage. Findings include problems that hinder use of ICT such as inadequate funding, irregular power supply, high cost of ICT tools, and lack of computer literate teachers and 12 measures that could enhance ICT utilization. It was recommended that government should provide enough funds and good power supply, regular training programme, and also make ICT learning compulsory at all level in schools.

Key words: ICT, Awareness, Secondary School, Home Economics Teachers, Niger State

Introduction

Information and Communication Technologies (ICT) are means of accessing receiving, storing, transferring, processing and sending ideas, perception and information through computer and telecommunication facilities (Keziah, 2004). ICT is changing the teaching and learning processes through its

potentials as a source of knowledge and medium for the transmission of content. ICT have significantly changed the speed of production and distribution of knowledge. Information and communication technologies have created a “global village” where people communicate one another across the world as if

they lived together in the same house.

Information and communication technologies have been employed in teaching and learning. The use of video and audio recordings help both teachers and students to review and monitor information for better understanding. The internet can link teachers and student in different locations. Teachers can contact and discuss with one another through email and share ideas, experiences and resources. Student can communicate with one another or with their teachers by means of websites or email. These creates opportunities for both teachers and students to interact closely and thereby improve teaching and learning processes in all levels and subjects including home economics in secondary schools.

Home economics is a field of knowledge and service primarily concerned with strengthening the family life through educating the individual for family living, improving the services and goods used by families, conducting researches to discover changing needs of the individual family member to maximize their own and society's productivity and help people adjust to changes and shape their future (Anyakoha, 2008). The aim of home economics education is to ensure optimal quality of life for effective participation in the family

as well as furthering community, national and world condition favourable to family living. The philosophy of home economics education boards on the improvement of quality of life of the individual, family and society at large. It focuses on the acquisition of knowledge, skills and competencies which family members require to improve family living.

The benefit of ICT in Home Economics, however, has not been utilized by many teachers in different parts of the world, especially, those in developing nations. For these advantages to be achieved, teachers must be aware of them and have knowledge of how to obtain them. Provision of ICT facilities and use of them by the teachers form a vital step toward realization of the benefits of ICT in teaching and learning Home Economics in secondary schools. Teachers should be helped to take advantage of the growing ability of educational resources such as software packages and web pages. ICT constitute important tools in Home Economic education because learning is hinged on information sources such as the computers, power point television, radio, internet services and video materials.

The low level of awareness and use of ICT among secondary school Home Economics teachers is caused by several factors which include lack

of ICT facilities in rural areas, poor funding of ICT centers by the government, lack of trained personnels, high cost of computers and its accessories and inadequate awareness programmes for teachers. Teachers' level of awareness and use of ICT depend on factors such as teacher's attitude and competence which impact ICT use (Jegade, 2008).

The need for increased awareness and use of ICT by teachers has grown over the years as the world becomes a global society that is highly dependent on information and communication to survive. The global adoption of ICT has been a landmark of educational scene in the last two decades, thus resulting in information age. Educational planners in some developing countries have responded to this need by initiating national programmes to integrate the new technologies. Studies have revealed that most secondary school Home Economic teachers in most developing countries are ignorant of the new ICT facilities (Tell, 2007).

Purpose of the Study

The major purpose of this study was to investigate ICT awareness and utilization status of secondary school home economics teachers in Minna metropolis. Specifically, the study determined:

1. The extent to which home economics teachers are aware of

the benefits of ICT in teaching and learning of home economics in secondary schools.

- 2 The problems of ICT utilization to teaching and learning of home economics in the secondary schools.
- 3 Measures for enhancing ICT utilization in teaching and learning of home economics in secondary schools.

Methodology

Research design: the study adopted a survey method. The area of the study was in Minna Metropolis in Niger State, Nigeria

Population for the Study: Population for this study comprised all the 100 teachers of home economics in 30 (20 public and 10 private) secondary schools in Minna Metropolis Niger State. All the 100 teachers were involved in the study. There was no sampling. There were 9 male teachers and 91 female teachers. 5 teachers had M.Ed and taught senior students, 58 had B. Ed taught both senior and junior students, 22 had NCE and taught senior and junior students while the remaining 15 had Diploma and taught junior students..

Instrument for Data Collection: Questionnaire was used for data collection. It was developed based on the specific purposes. It was face validated by two home economics

lecturers from a tertiary institution. It was a five –point scale instrument.

Data Collection and Analysis Techniques: The instrument was administered by hand to all the 100 Home Economic teachers in their schools in Minna, Niger State. All the

100 copies of questionnaire were distributed and were retrieved. Data collected on the study were analyzed using frequency count and percentages.

Table 1: Percentage Responses of the Teachers' Awareness of Benefits of ICT in Teaching and Learning of Home Economics in Secondary Schools.

| S/N | Benefits of ICT in Teaching and Learning Home Economics | Percentage (%) Responses | |
|-----|---|--------------------------|-------------|
| | | Awareness | Unawareness |
| 1 | Facilitates interactions between Teachers and students in Home Economics Education. | 32 | 68 |
| 2 | Easy access to information. | 58 | 42 |
| 3 | Exposure to new teaching techniques | 60 | 40 |
| 4 | Makes learning exciting and interesting | 80 | 20 |
| 5 | Enables Home Economics students to acquire necessary concepts with ease. | 80 | 20 |
| 6 | Promotes active participation of Students in the learning process | 70 | 30 |
| 7 | Enhance retention of learning | 90 | 10 |
| 8 | Facilitates lesson presentation and Saves the amount of time teacher spend On the teaching of a topic | 85 | 15 |
| 9 | <u>Discourages rote learning</u> | <u>85</u> | <u>15</u> |

Table 1 reveals that the teachers' awareness of the listed benefits of ICT in teaching and learning of Home economics in secondary schools ranged from 32 to 90%. This implies that the teachers were aware that with ICT, information is easily accessible, learning becomes exciting and interesting, and it enables Home

Economic students to acquire necessary concepts with ease. The table reveals that despite the teachers' awareness of some of the benefits, many of the teachers (68%) had not realized that ICT increases interaction between students and teachers.

Table 2: Percentage Responses on the problems of ICT utilization in Teaching and learning of Home Economics in Secondary Schools.

| S/N | Problem of ICT utilization in Teaching and Learning of home economics | Percentage (%) Responses | |
|-----|---|--------------------------|--------------|
| | | Awareness | un-awareness |
| 1 | Teacher's lack of competence in handling ICT | 70 | 30 |
| 2 | Inadequate time for training in ICT | 65 | 35 |
| 3 | Poor power supply | 80 | 20 |
| 4 | Poor quality hardware | 55 | 45 |
| 5 | Phobia for ICT and its Utilization | 65 | 35 |
| 6 | Inadequate technical support for teachers | 80 | 20 |
| 7 | Teachers' resistance to change and negative attitude towards the new. | 28 | 72 |
| 8 | Lack of incentives and motivation for teachers | 30 | 70 |
| 9 | Poor funding to procure ICT facilities | 80 | 20 |
| 10 | Teachers consider themselves old to learn about ICT | 40 | 60 |
| 11 | Lack of adequate awareness about ICT by school administrator | 60 | 40 |
| 12 | Students negative attitude towards ICT | 70 | 30 |
| 13 | High cost of ICT facilities | 90 | 10 |

Table 2 reveals that 90% of the teachers recognize high cost of ICT facilities as a factor hindering the awareness and utilization of ICT. Only 10% of the teachers were unaware of the problem posed by high cost. This implied that many teachers would utilize ICT if the facilities were made available and

cheap. The table also revealed that many of the teachers were aware that teachers' lacks competence in handling ICT, poor power supply, inadequate technical support for teachers and poor funding to procure ICT facilities hinder the utilization of ICT.

Table 3: Response on the measures for enhancing ICT utilization in Teaching and Learning of Home Economics in secondary schools.

| S/N | Measures for Enhancing ICT Utilization in Teaching and Learning of Home Economics in Secondary Schools. | Percentage (%) Responses | |
|-----|--|--------------------------|-------------|
| | | Awareness | Unawareness |
| 1 | Employing and training new home economics teachers on ICT | 70 | 30 |
| 2 | Allotting enough time for teachers to practice on ICT | 87 | 13 |
| 3 | PTA to organize and provide fund for the Procurement of ICT facilities/tools. | 40 | 60 |
| 4 | Curriculum of Home Economics should be reviewed to include the training of teachers and students on the use of ICT | 90 | 10 |
| 5 | ICT implementation in schools should be Taken serious by the government | 90 | 10 |
| 6 | Power supply that enhances the use of ICT should be regular | 90 | 10 |
| 7 | Government should provide more fund for ICT development in secondary schools | 75 | 25 |
| 8 | Hiring ICT experts outside the school system to give informal lecture to teachers and students | 85 | 15 |
| 9 | Establishing efficient ICT centres capable of servicing large number of students from nearby school | 85 | 15 |
| 10 | Creating proper awareness on the benefits of ICT in development among teachers | 70 | 30 |
| 11 | Involving of teachers of home economics in planning and discussion on issues relating the use of ICT | 68 | 32 |
| 12 | Affording home economics teachers opportunities for in-service training on ICT | 80 | 20 |

Table 3 shows that majority (90) of the teachers believed that a curriculum that includes training of teachers and students on the use of ICT, provision of regular power supply and taking ICT implementation in schools serious would enhance utilization of ICT in teaching and learning home economics. It could also be observed from the table that providing incentives such as involving home economics teachers in planning issues relating to ICT would promote ICT utilization among teachers. However, many of the teachers (60)

had not realized that Parents Teachers Associations could play vital roles in enhancing ICT utilization.

Discussion

Information Communication Technologies (ICT) play vital role in promoting teaching, learning and distribution of information from one person or place to another.

Table 1, shows that teacher awareness of the benefits of ICT in teaching and learning of Home Economics in secondary school is significantly high. An average of 65% of the teachers believed that ICT makes learning exciting and interesting, reduces the time teachers would ordinarily spend on a topic, and enhances retaining of knowledge while at the same time discourages learning by rote. The findings in table 1 is consistent with the observations made by Jenkin, Mimbs and Tracy (2009) who reported that awareness requires that a person have understanding of how ICT influences their day to day life as well as the large society. Similarly, Ho and Kitty (2010) had reported that despite the large benefit that comes from the use of ICT, little progress had been made in the adoption of ICT in Home Economics Education in Hong Kong. Lau (2005) also stressed in his paper that little success had been made in the

incorporation of ICT in Home Economics.

Table 2, revealed that factors such as poor power supply, inadequate technical support, teacher's lack of competence in handling ICT, resistance to change on the part of teachers, poor power supply in Nigeria and negative attitude towards the new, especially among the people of the area of study, slow down progress in both awareness and utilization of ICT. The observation from the survey is in agreement with findings of Jenkins, Mimba and Tracy (2009). Jenkins *et al* reported that unstable power supply was a hindering factor in computer literacy. This implies that a regular supply of affordable electricity with improve computer literacy and utilization of ICT in Niger State.

It could be seen in table 2 that high cost of ICT facilities, poor funding to procure ICT facilities as well as lack of awareness about ICT by school administration constitute obstacles to the use of ICT in Home Economics in Minna. ICT facilities are imported into Nigeria at costs that are often beyond the reach of an ordinary citizen who earns less than a dollar a day. To reduce the cost of computers, government can reduce or remove import duties on computers and its accessories. The government should also create and fund public ICT centres at different rural and urban areas to help the

citizens have access to ICT facilities. Erjemue, Lilly and Igbemi (2010) in her work observed that high cost of ICT facilities was a barrier to the use of ICT.

Members for enhancing utilization of ICT are listed in table 3. The result shows that regular power supply, regular training programmes in ICT for Home Economic teachers and establishment of telecentres across schools will enhance awareness and utilization of ICT. The findings lend support to that made by Olurankinse (2007). Olurankinse summarized that a home maker without the basic knowledge of ICT and its operation would be unable to utilize these services. Aburime and Uhomoibhi (2010), in their work to determine the impact of technology and culture on Home Economics and nutrition science education in developing countries found that special requirement for application are important for successful establishment and use of information systems in higher education. In addition to power supply, the measures listed in table 3 are important for ICT utilization.

Conclusion

High level of awareness of the use and benefits of information communication technologies (ICT) in teaching and learning is necessary for the proper utilization of ICT in education. ICT awareness and

subsequent utilization among secondary school Home Economics teachers in Minna is inadequate. This places their students at the risk of receiving little or no exposure to the use and benefits of ICT facilities. There is need, therefore, for policies and regulations to enhance ICT awareness among teachers. The policies should require governments and the private sector to employ and train new teachers on ICT, provide funds for ICT development in secondary schools, provide regular power supply, and create proper awareness on the benefits of ICT in development among teachers and to provide other programmes that will promote ICT awareness among teachers. Without these, the benefits of ICT will continue to elude both the teachers and students.

Recommendations

Based on the findings of the study the following recommendations were made:

- 1 Seminars, conferences, workshops, in-service training and improvement programmes should be organized by schools to train teachers on ICT.
- 2 Teachers should be encouraged to possess their own personal computer.
- 3 ICT centres should be established in school environments.

- 4 Government should provide more funds for procuring ICT facilities and maintaining available ones.
- 5 Charity organization and philanthropists should come to the aid of schools by donating ICT facilities to secondary schools.
- 6 Electric power supply should be provided

References

- Aburime, M. and Uhomoibhi, J. (2010). *Impact of technology and culture on home economics and nutrition science education in developing countries*. Multicultural education and technology. Journal, 4 (1).
- Anyakoha, EU. (2008). *Home Economics for Junior secondary School*. Africana First Publishers Limited, Ibadan P1
- Efajemuo, O., Lilly, G., Igbemi, M (2010). Improvement of analytical technique for determination of gold in geological matrix. *Journal of Technology and Education in Nigeria*. ISSN: 1118 -5570.
- Ho, K (2010). *A study of Honk Kong home economics teachers' adoption of ICT*. Ph. D Thesis. <http://eprints.usq.edu.au/19535> accessed January 2013
- Jegede P. (2008). *Attitudinal Characteristics and Teachers ICT use Level*. Issues in Informing Science and Informing Technology. projegede@oaurfeedu.ng.
- Jenkins, D. Mimbs, C. A & Tracy K. (2009); Computer Literacy, Access and use of Technology in the family and consumer. *Science Education. Journal of Family and Consumer Science Education*, 27(1)-1-13.
- Keziah, A.A (2004). *Contemporary Education Technology*, Pearl Publishers, Port Harcourt: Nigeria.
- Lau, K. (2005). *Information and Communication Technology in Home Economics: what is the situation?* Paper presented at the 2nd international institute of consumer science incorporating Home Economics, Research conference: consumption, culture and community. Liverpool
- National Teachers Institute (2007). *Pivotal Teacher Training Programme (PTTP. For Universal Basic Education (UBE) Kaduna: Nigeria*
- Olurankinse, C. A. (2007); Family Economic Empowerment through Information Communication Technology in food and Nutrition. *Journal of home Economics Research* 8:33-40.
- Tella (2007). *An assessment of Secondary School Teachers use of ICTs Implications for Further Development of ICTs uses in Nigeria Secondary Schools*. The Turkish Online. *Journal of Education Technology* 6 (3)2.
- Wodi, S. W. (2009). *The Concept of Educational Technology: Problems and Prospects of Information Technology (ICT) in Nigeria* <http://www.eurojournals.com/africa.htm> Accessed October, 14th 2011.