

INFLUENCE OF AGE AND GENDER ON THE USE OF UNESCO ICT COMPETENCY FRAMEWORK IN TEACHING ENVIRONMENTAL ASPECTS OF ECONOMICS IN ENUGU STATE PUBLIC SECONDARY SCHOOLS

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ABSTRACT

Literature is replete that ICT has proven to be a useful tool for enhancing teaching and learning in classrooms. In view of providing a useful guide on skill set necessary for effective utilization of ICT gadgets in classrooms, the United Nations Educational, Scientific and Cultural Organization (UNESCO) developed a competency framework which has proven to be a successful framework providing needed competencies by teachers on the use of ICT gadgets to teach. In this study, we investigated how Age and Gender influence the competency level of teachers on the use of the UNESCO ICT competency framework to teach Economics in Senior Secondary Schools in Enugu State. The study adopted a descriptive survey research methodology. Eighty three teachers purposively sampled participated in the study. Mean, Standard Deviation and Analysis of Variance (ANOVA) were used for analyzing data collected. Findings showed that male and female teachers were not competent in demonstrating teaching as described in the UNESCO ICT framework to teach Economics in Public Senior Secondary Schools in Enugu State. Also, age was found not to be significant factor influencing possession of needed ICT competencies as described by UNESCO for teaching in Secondary Schools. The study thus recommends remedial efforts by relevant education ministries in exposing teachers to teacher in-service and professionalism programs to meet recommended ICT competencies for teaching Economics in Enugu State Public Secondary Schools.

Keywords: UNESCO ICT, Environment, Economics, Framework, Competency

INTRODUCTION

The importance of the use of teaching aids cannot be overemphasized. Madueke (2011) pointed out that the use of improvised materials and teaching aid in the art of teaching not only engage both the students' auditory and sensory organs in the art of teaching, but they also help students to remember effectively the contents learnt. Today, the use of information and communication technology gadgets to teach contents in Economics has even proven to be a better teaching aid. Some of the gains include increased students' interest in subjects as the use of ICT gadgets to teach students makes the content taught more interesting to the students and sustains their attention as new technological device is used to learn and this makes contents taught to appear interesting and fun. This claim is supported by UNESCO information and communication technology competency framework for Teachers ([ICT CFT], 2011) which highlighted gains in using ICT to teach students. This notwithstanding, little knowledge exists regarding whether younger and older staff and students are affected equally by ICT. This influence of age is one of the focal issues set out for investigation in this study.

Age is a strong factor that determines ICT competencies and integration of ICT into the teaching process. Studies show that older teachers find it difficult to adapt to the present form

of teaching with ICT. For instance, Studies by Jennings & Onwuegbuzie (2011) and Thang & Padon (1997) found that younger teachers feel more comfortable working with computers, have higher levels of computer literacy, and have less computer anxiety than the older teachers. In terms of usefulness, the Princeton Research Associates, Inc. (2003) found that almost two-third (fifty nine percent, 59%) of teachers below 35 years of age believed that computers in the classrooms are essential and effective while only twenty nine percent (29%) of the teachers over 35 years of age share this belief. The age bracket of Economics teachers in Enugu state needs to be known and determined if they in anyway contribute to the success of the ICT policy. Teachers' qualification and age are also related to gender.

Gender is a set of characteristics distinguishing between male and female. It also refers to the socially constructed roles, behaviors, activities and attributes that a particular society considers appropriate for men and women. Traditionally, gender stereotype has over the years continued to limit females' capabilities and constrain their ability to participate in all aspect of human Endeavour. Gender issues themselves affect all aspect of the society to the extent that the number of women in certain profession/competencies in higher institutions of learning is constrained by gender stereotype. It has been argued that this long-standing gender bias reflects in performances. Gender was identified as a critical factor that affects teachers' attitude towards computer (King, Bond & Blandford, 2002). King, Bond & Blandford (2002) found that females have lower scores on computer technology than their male counterparts. These prejudices limit the performance level of female in certain courses. The gender issue in science and technology and ICT has been a source of aversions as science teachers and ICT has been male stereotyped and regarded as difficult (Ofudu, 2010). Amongst the goals of Education For All (EFA) as agreed by world countries in 2000 is: "Achieving a 50 per cent improvement in levels of adult literacy by 2015, especially for women, and equitable access to basic and continuing education for all adults and Eliminating gender disparities in primary and secondary education by 2015, and achieving gender equality in education by 2015, with a focus on ensuring girls' full and equal access to and achievement in basic education of good quality". This suggests that gender is sensitive to educational objectives and may affect interest and confidence in the teaching of Economics with ICT. Therefore, Economics teachers need be assessed across gender so as to find out necessary actions that needed to be put in place by the federal government in order to avoid failure of investments in ICT and education.

Teaching with the aid of ICT facilities had been proved to aid better understanding and performance by students, (UNESCO ICT CFT, 2011), but teachers cannot teach if they do not possess requisite ICT competencies for teaching. For students to learn how to search for knowledge using ICT facilities, teachers must be able to guide them in this task. Therefore, the study seeks to assess Economics teachers' perception of their ICT competencies in Enugu State. The UNESCO ICT benchmark cum objectives will be used in the course of investigating these competencies. To effectively undertake the study, the following research questions and hypothesis were developed and formulated respectively to guide the study.

Research Questions

1. What is the influence of age on levels of ICT competencies of Economics teachers in guiding student using ICT facilities to discover information in Enugu State public Secondary Schools?
2. What is the influence of gender on levels of ICT competencies of Economics teachers in guiding student using ICT facilities to discover information in Enugu state Public Secondary School?

H01: There is no significant difference in the mean levels of ICT competencies possessed by Economics teachers in different age brackets in Enugu State Public Secondary Schools.

H02: There is no significant difference in the mean scores of ICT competencies possessed by male and female Economics teachers in Enugu state Public Secondary Schools.

UNESCO-ICT Competency standard for Teacher

The ICT Competency Framework for Teachers project is part of a range of initiatives by the UN and its specialized agencies, including UNESCO, to promote educational reform and sustainable economic development. Teachers need to be equipped to achieve these goals, and UNESCO in partnership with industrial leaders and global subject experts, has created an international benchmark which sets out the competencies required to teach effectively with ICT: UNESCO's ICT Competency Framework for Teachers.

The Framework is arranged in three different approaches to teaching (three successive stages of a teacher's development). The first is **Technology Literacy**, enabling students to use ICT in order to learn more efficiently. The second is **Knowledge Deepening**, enabling students to acquire in-depth knowledge of their school subjects and apply it to complex, real-world problems. The third is **Knowledge Creation**, enabling students, citizens and the workforce to create new knowledge required for more harmonious, fulfilling and prosperous societies.

Table 1: The UNESCO's ICT teacher competency framework

Teacher competency framework (UNESCO)

	TECHNOLOGY LITERACY	KNOWLEDGE DEPENING	KNOWLEDGE CREATION
UNDERSTANDING ICT IN EDUCATION	Policy awareness	Policy understanding	Policy innovation
CURRICULUM AND ASSESSMENT	Basic knowledge	Knowledge application	Knowledge society skills
PEDAGOGY	Integrate technology	Complex problem solving	Self management
ICT	Basic tools	Complex tools	Pervasive tools
ORGANIZATION AND ADMINISTRATION	Standard classroom	Collaborative groups	Learning organizations
TEACHER PROFESSIONAL LEARNING	Digital literacy	Manage and guide	Teacher as model learner

Adopted from UNESCO ICT competency framework for teachers

Technology literacy

The policy goal of the technology literacy approach is to enable learners, citizens and the workforce to use ICT to support social development and improve economic productivity. Related policy goals include increasing enrolments, making high-quality resources available to all, and improving literacy skills.

Teacher competencies related to the technology literacy approach include basic digital literacy skills and digital citizenship, along with the ability to select and use appropriate off the shelf educational tutorials, games, drill-and-practice software, and web content in computer laboratories or with limited classroom facilities to complement standard curriculum objectives, assessment approaches, unit plans, and didactic teaching methods. Teachers must also be able to use ICT to manage classroom data and support their own professional learning.

Knowledge deepening

The aim of the knowledge deepening approach is to increase the ability of students, citizens, and the workforce to add value to society and to the economy by applying the knowledge gained in school subjects to solve complex, high priority problems encountered in real world situations of work, society and in life generally. Such problems might relate to the environment, food security, health, and conflict resolution. With this approach, teachers should understand policy goals and social priorities and be able to identify, design and use specific classroom activities that address these goals and priorities.

Teacher competencies related to the knowledge deepening approach include the ability to manage information, structure problem tasks, and integrate open-ended software tools and subject-specific applications with student-centered teaching methods and collaborative projects in support of students' in-depth understanding of key concepts and their application to complex, real-world problems. To support collaborative projects, teachers should use networked and web-based resources to help students collaborate, access information, and communicate with external experts to analyze and solve their selected problems. Teachers should also be able to use ICT to create and monitor individual and group student project plans, as well as to access information and experts and collaborate with other teachers to support their own professional learning.

Knowledge Creation

The aim of the knowledge creation approach is to increase productivity by producing students, citizens, and a workforce that is continually engaged in knowledge creation, innovation and life-long learning. Teachers, in this approach, should not only be able to design classroom activities that advance these policy goals but also participate in the development of programmes within their school that advance these goals. Teachers who are competent in the knowledge creation approach will be able to design ICT-based learning resources and environments; use ICT to support the development of knowledge creation and the critical thinking skills of students; support students' continuous, reflective learning; and create knowledge communities for students and colleagues. They will also be able to play a leading role with colleagues in creating and implementing a vision of their school as a community based on innovation and continuous learning, enriched by ICT.

The Behaviorists Theory

The behaviorists believed that human behaviors can be learnt and quantitatively assessed. Amongst the proponents of this theory is the American psychologist B.F. Skinner of whose work has direct influence to the present study. Skinner believes that people can learn more effectively if their environment is carefully controlled. He developed the principles of operant (behavior) conditioning which basically stated that; If the occurrence of an operant (stimulus) is followed by the presentation of a reinforcing stimulus, the strength is increased (Skinner, 1983).

This provides the simple way of reinforcing the correct behavior through reward and no action being taken for a wrong behavior. Therefore, the study, which encourages use of ICT facilities to teach economics, is upholding the theory. In the words of Skinner, (1983), positive reinforcements had encouraged the use of computers as teaching machines. Today for many educational computer programs to be learnt effectively there have to be set of positive stimuli which are more often than not multimedia in nature followed by the measurement of a response. However, these programs often move away from being purely Skinnerian in nature by not only rewarding correct responses but also attempting to correct the wrong responses. There are many examples where operant conditioning is still used especially in the use of ICT with disruptive or low attaining students. His vision of computers being used in education has proved very influential especially against the constructivist- Papert's view of the importance

of the motivational engagement of the learner which contrasts sharply with Skinner who although recognizing this influence considered it unnecessary for instruction.

METHODOLOGY

Design of the study

The design employed to assess the perception of information and communication technology competencies possessed by Economics teachers in Enugu State is descriptive survey. Descriptive survey design according to Ali (2006) is the design that uses the sample data of an investigation to document describe, and explain what is existent or non-existent, on the present status of a phenomenon being investigated.

Area of the study

The area of this study is Enugu education zone. Enugu education zone is made up of three Local government areas namely; Enugu North, Enugu East and Isi-Uzo local government areas. The education zone was chosen because collection of data is more cogent and useful when respondents are sampled from schools that have the identified ICT gadgets and secondary schools with computer laboratories equipped with ICT facilities can be found more in this education zone.

Population of the study

The population of this study comprises of all Economics teachers in public secondary schools in Enugu state. There are about 35 public secondary schools in Enugu Education zone with about 105 Economics Teachers (Source; teachers in Enugu state by Enugu state post primary school management board (ESPPSMB), statistics and records unit 2009/2010).

Sample and sampling technique

The sample consists of Economics teachers in Enugu education zone numbering 83 Economics teachers. This sample size was chosen using the “Taro Yamene method was used to determine the sample size from a finite population. The sample size represents 79%, of the population. Purposive sampling technique was used to select ten schools each from Enugu North and Enugu East local government area while four (4) schools were selected from Isi-Uzo local government area of Enugu state. A census of all Economics teachers in the schools selected was used for the study. The choice of the sampling technique was necessitated by the fact that schools with computer laboratories and needed ICT facilities would yield best response for the study.

Instrument for data collection

An Information and Communication Technology Competency Scale (ICTCS) was developed by the researcher with which to collect data. The instrument is a self rater instrument which allows the respondents to rate specific ICT competencies they posses with which to effectively teach Economics. ICTCS is a four-point rating scale with response pattern; High Competence (HC), Moderate Competence (MC), Low Competence (LC) And No Competence (NC). High Competence depicts sufficient competency by a respondent in exhibiting the ability required by an item and was be weighted 4 points. MODERATE COMPETENCE scale depicts possession of relatively fair competence by a respondent in exhibiting the ability required by an item and was weighted 3 points, LOW COMPETENCE depicts relatively little competence by a respondent in exhibiting the ability required by an item and was weighted 2 while NO COMPETENCE depicts absence of ability in a respondent on ability required by an item and was weighted 1 point.

Validation of the instrument

The instrument was subjected to content validation and face validation. For content validity, the researcher prepared a test blueprint in other to ensure that items were adequately drawn across the objectives identified using the UNESCO ICT CFT.

The instrument was face validated by three experts in Measurement and Evaluation, Science Education Department in the University of Nigeria Nsukka. Content and face validations of the instrument were considered sufficient and no construct validity needed for the instrument. This was informed by the position of Nworgu (2006) that construct validity is used to validate an instrument which measures latent abilities called constructs; usually measured under the affective domain.

Reliability of the instrument

To establish the reliability of the instruments, trial testing of the instrument was carried out by giving the instrument to thirty Economics teachers in ten different secondary schools drawn from Nsukka, and Abakaliki. Teachers included in trial testing from Nsukka were exclusively drawn from private secondary schools in Nsukka to avoid sample contamination in using public secondary school teachers from the locality who may have been transferred to secondary schools in sampled locations between the period of trial testing and proper field work of the study. Feedback gotten from them was used to compute the reliability of the instrument. Reliability measure of internal consistency was established using SPSS software to run Cronbach Alpha analysis which yielded over all internal consistency reliability coefficient of 0.865. Alpha reliability coefficient was desired appropriate to establish the reliability of the instrument because the items were polychotomously scored.

Method of data collection

To collect data, the researchers administered the instrument by themselves. The instrument was given to the teachers in their various schools and feedback collected on the spot after completion by the teachers. On the spot guide was given to respondents who may need such in other to reduce external validity threats like falsification of data as the instrument is a self-rater scale.

Method of data analysis

Research questions and hypothesis were analyzed using mean, standard deviation, t-test and analysis of variance (ANOVA). To take decision, criterion level of 2.50 representing mean score of the four-point rating scale was used to take decisions on research questions. Mean scores for items up to and above 2.50 will be considered competent, otherwise, abilities assessed will be considered incompetent. Hypotheses were tested at 0.05 level of significance.

RESULTS

Research Question one: What is the influence of Age on the levels of ICT competencies of Economics Teachers in Enugu State?

To answer this research question, mean and standard deviations were used to present the level of competencies of the Economics teachers with respect to age in use of ICT facilities to teach Economics.

Table 2: Mean and standard deviations on influence of age on levels of ICT competencies of Economics Teachers in Enugu State

	20 - 30yrs (N=32)	31-40yrs (N=30)	41yrs – above (N=21)
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S/ N	Items	$\bar{X}$	SD	Dec.	$\bar{X}$	SD	Dec.	$\bar{X}$	SD	Dec.
46	Dexterity of fingers in locating browser search engines	1.46	0.50	INC.	1.53	0.51	INC	1.47	0.81	INC
47	Ability to organize your class into groups using local networking	1.53	0.51	INC	1.67	0.76	INC	1.62	0.49	INC
48	Precision in harnessing information from different sources to form a single body of knowledge	1.50	0.51	INC	1.47	0.68	INC	1.95	0.67	INC
49	Ability to burn information on Economics from a computer system into a hard disk	1.63	0.71	INC	1.83	0.79	INC	1.38	0.49	INC
50	competently can I organize my Economics class into groups using the system	1.59	0.49	INC	1.43	0.56	INC	1.76	0.89	INC
51	How Competently Can I Draw A Table With Which To Organize My Class Into Groups For Study Selected Topics In Economics	1.59	0.49	INC	1.30	0.84	INC	1.90	0.30	INC
52	Ability to set up local networking system for my Economics class	1.16	0.36	INC	2.00	0.87	INC	1.33	0.48	INC
53	Ability to organize my students into groups and give them assignments to solve online using a computer system	1.66	0.48	INC	1.63	0.49	INC	1.95	0.74	INC
	Cluster Mean	1.51	0.23	INC	1.61	0.17	INC	1.67	0.21	INC

The table above shows the mean and standard deviations on the influence of age on use of ICT facilities to teach Economics in Enugu education zone. From the mean scores of the age categories, we can see that all the mean score of the teachers- age; (20-30yrs), (31-40yrs) and (41-50yrs) are less than the criterion reference of 2.50. This means that age do not influence the teachers' ability to use ICT facilities to teach Economics.

Research hypothesis one: There is no significant difference in the mean levels of ICT competencies possessed by Economics teachers in different age brackets in Enugu State.

This hypothesis will be tested using analysis of variance.

Table 3: Summary of Results of the ANOVA analysis to test research hypothesis one is presented below:

	Sum of Squares	d.f	Mean Square	F	Sig.	DEC.
Between Groups	0.330	2	0.165	3.99	0.02	Reject
Within Groups	3.331	80	.041			
Total	3.642	82				

From the results of the analysis, we could see that the Sig. value is 0.022 which is smaller than the 0.05 level of significance stated for the test of hypothesis; we therefore reject the null hypothesis and conclude that there is a statistical significant difference between the means of the three groups or class of ages compared.

However, we do not know where the significant difference arose from, or the pair-wise comparison that yielded the significant difference. To solve this problem will require a post-hoc analysis or test to find out the interaction effect and where the significant statistical difference arose from. However, this test is not covered within the scope of this present study.

Research Question two: What is the influence of gender on the levels of ICT competencies of Economics teachers in Enugu state?

To answer this research question two, mean and standard deviations were used to present the level of competencies of the Economics teachers with respect to gender in use of ICT facilities to teach selected contents in Economics.

Table 4: Mean and standard deviations on influence of gender on levels of ICT competencies of Economics teachers in Enugu state

S/N	Items	Male teachers (N=54)			Female teachers (N=29)		
		$\bar{X}$	SD	Dec.	$\bar{X}$	SD	Dec.
46	Dexterity of fingers in locating browser search engines	1.46	0.61	INC.	1.53	0.56	INC.
47	Ability to organize your class into groups using local networking	1.61	0.63	INC	1.59	0.55	INC
48	Precision in harnessing information from different sources to form a single body of knowledge	1.65	0.69	INC	1.53	0.56	INC
49	Ability to burn information on Economics from a computer system into a hard disk	1.61	0.75	INC	1.67	0.63	INC
50	competently can I organize my Economics class into groups using the system	1.61	0.75	INC	1.52	0.56	INC
51	How Competently Can I Draw A Table With Which To Organize My Class Into Groups For Study Selected Topics In Economics	1.57	0.61	INC	1.55	0.70	INC
52	Ability to set up local networking system for my Economics class	1.47	0.68	INC	1.55	0.78	INC
53	Ability to organize my students into groups and give them assignments to solve online using a computer system	1.77	0.58	INC	1.64	0.54	INC
	Cluster Mean	1.59	0.22	INC	1.58	0.19	INC

Result in table four above depict the means and standard deviations of respondents on the influence of gender on levels of ICT competencies of Economics teachers in Enugu state. Results showed that for male teachers, all the items had mean values greater than the criterion level of 2.50. This means that gender had little or no influence on the levels of ICT competencies possessed by economics teachers in Enugu state.

Also, all the mean values for female respondents are less than 2.50. This also supports that gender does not influence teachers' ICT competency level. The cluster mean of 1.59 with a standard deviation of 0.22 for male teachers and 1.58 with a standard deviation of 0.19 for female teachers mean that gender do not influence the teachers' level of ICT competency in Enugu state.

Research hypothesis two: There is no significant difference in the mean score of ICT competencies possessed by male and female Economics teachers in Enugu state Public Secondary Schools.

Table 5; Results of the t-test statistics which was used to test hypothesis two is presented below:

S/N	Items	Male teachers (N=49)		Female teachers (N=34)		t-cal	DF	Sig.	Dec.
		$\bar{X}$	SD	$\bar{X}$	SD				
46	Dexterity of fingers in locating browser search engines	1.46	0.61	1.53	0.56	-0.45	81	0.65	NS
47	Ability to organize your class into groups using local networking	1.61	0.63	1.59	0.55	0.17	81	0.86	NS
48	Precision in harnessing information from different sources to form a single body of knowledge	1.65	0.69	1.53	0.56	0.86	81	0.39	NS
49	Ability to burn information on Economics from a computer system into a hard disk	1.61	0.75	1.67	0.63	-0.40	81	0.68	NS
50	competently can I organize my Economics class into groups using the system	1.61	0.75	1.52	0.56	0.57	81	0.08	NS
51	How Competently Can I Draw A Table With Which To Organize My Class Into Groups For Study Selected Topics In Economics	1.57	0.61	1.55	0.70	0.09	81	0.93	NS
52	Ability to set up local networking system for my Economics class	1.47	0.68	1.55	0.78	-0.55	81	0.58	NS
53	Ability to organize my students into groups and give them assignments to solve online using a computer system	1.77	0.58	1.64	0.54	1.01	81	0.31	NS
	Cluster Mean	1.59	0.22	1.58	0.19	0.41	81	0.68	NS

Result in table eight above showed the t-test analysis of the influence of gender on teachers' use of ICT to guide students in searching for new information. Result showed that there was no significant influence of gender on all the items. This is because the significant values are greater than 0.05 level of significance. For the whole items in the cluster tested, the t-value of 0.41 with degree of freedom of 81 and a significant value of 0.68 was obtained. Since the significant value of 0.68 is greater than 0.05 set as level of significance, this means that the null hypothesis which stated that there is no significant difference between the mean scores of male and female teachers on use of

ICT facilities to guide learners in discovering new information is accepted. The inference drawn therefore is that gender do not significantly influence teachers' competence in using ICT facilities to guide learners to discover new information.

DISCUSSION

From the results presented in chapter four of the study, all the age categories of the teachers do not possess the requisite competencies needed to guide student into learning new information in economics. However, the younger teachers possess the requisite ICT competencies more than the older teachers. On items where older teachers seem to perform better, they always have a higher standard deviation showing that only few of the older teachers may possess the skill better than the younger teachers.

The results suggest that younger teachers appear to be more comfortable to use ICT to teach than the older teachers. This is in agreement with the position of Oyeyinka (2001) who stated that younger teachers learn and use computer facilities better than older teachers.

From the SPSS results of the one way analysis of variance used to compare the scores of the teachers with respect to their different ages, we could see that the mean scores of the three age brackets stands as follows; (20-30yrs) – thirty two teacher, with a mean score of 1.52 and a standard deviation of 0.22. (31-40yrs) – thirty teachers had a mean score of 1.61 and a standard deviation of 0.16. (40yrs and above) – twenty-one teachers had a mean score of 1.67 and a standard deviation of 0.21. The between group and within group sum of squares of the variations in the mean distribution is also given. The sig. value of 0.022 yielded by the test result which is less than the 0.05 level of significance against which the hypothesis is tested means that the null hypothesis is rejected. We however accept the alternative hypothesis and conclude that there is a significant difference in the mean scores of the teachers compares against each other with respect to their age brackets.

The decision taken means that the differences in mean are significant enough to have occurred by chance. This means that younger teachers indeed may have performed better than older teachers in use of ICT facilities to teach selected contents in Economics. To solve this problem the post hoc analysis Hypothesis four, helped us to find out where the significant effect lie.

ICT Competencies Possessed By Economics Teacher With Respect To Gender

Findings from the study show that there is no influence of gender on the ability of the teachers to guide students into searching for information in Economics using ICT facilities. Both the male and female teachers possess same level of ICT competence in using ICT facilities to teach economics. This position is upheld by Petriel (2009) who opined that both men and women teachers exposed to same environmental condition usually react in similar manner to these conditions. Both teachers are still struggling to learn the new skills in using ICT facilities to teach economics.

From the results presented in hypothesis one, the groups statistics yielded a mean score of 1.59 for male teachers (40), with a standard deviation score of 0.22 and 1.58 mean score for female teachers (34), with a standard deviation of 0.19. The T cal. yielded 0.41 with 81 degree of freedom. Also, the (two tailed test) significance yielded 0.68. The score compared with the stated level of significance for testing our hypothesis is lower than 0.05 level of significance.

To take decision when testing hypothesis using SPSS results, for T-tests, the rule is that null hypothesis is accepted if the “sig.” value is greater than the stated level of significance. Otherwise it will be rejected. In the analysis of results for the study, the ‘sig’ value of 0.68 is

greater than 0.05 stated level of significance. Therefore, the null hypothesis is accepted. This means that the difference in the mean score of the male and female teachers could have occurred by chance and is insignificant to conclude that male teachers perform better than the female teachers or vice versa.

Conclusion and Recommendation

It is therefore concluded that teachers in the study area lack the requisite competencies prescribed by the UNESCO framework to teach Economics Using ICT. Training is therefore recommended to help teachers gain needed skills to effectively teach Economics in Enugu State public secondary schools.

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