

## **ICT COMPETENCE AMONG SOCIAL STUDIES TEACHERS IN SAPELE LOCAL GOVERNMENT AREA OF DELTA STATE**

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### **Abstract**

The study investigated ICT Competence among Social Studies teachers in Delta State. Three research questions and three hypotheses were formulated to guide the study. The study was a survey design. The population for the study consisted of 31 Social Studies teachers'. All 31 Social Studies teachers' were drawn for the study using the purposive sampling technique. Data were gathered with the questionnaire and analysed using descriptive statistics (percentages) and the t-test to answer the research questions and test the hypotheses. The result of the study revealed that there is significant difference in the competency level of Social Studies teachers in the use of ICT in teaching; there is no significant difference between male and female Social Studies teachers competency level in the use of ICT in teaching; there is significant difference between rural and urban Social Studies teachers competency level in the use of ICT in teaching and learning. Based on the findings it was recommended among others that provision should be made for continuous retraining of Social Studies teachers on ICT; ICT facilities should be provided and its functionality ensured so as to improve teachers access to it within the school; Government should ensure that ICT policy statements are translated into reality; Social Studies teachers should have a rethink towards the use of ICT in teaching and learning and make time to improve their competences irrespective of their workload.

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Teachers play a crucial role in the development, adoption and Implementation of any educational curriculum or innovation. This role becomes even more critical in adoption and integration of Information and Communication Technology (ICT) into the education programme of a country. It has been discovered that knowledge of ICT usage improves human capacity in every field of human endeavour, including business transaction, industrial operations, educational programmes and activities and life in general (Archibong, Ogbiji and Anijaobi-Idem, 2010) .

The rapid growth in Information Communication and Technologies (ICT) have brought remarkable changes in the twenty-first century and affected demands of the modern society. ICT is becoming increasingly important in our daily lives as well as in educational systems (Buabeng-Andoh, 2012). Therefore, there is a growing demand on educational institutions to use ICT to teach the skills and knowledge that students need for the 21st century. Radloff (2001:12) highlighted the opportunities that ICT presents for enhancing the quality of teaching and learning to include:

“Providing encouragement for staff and students to reflect on how they teach and learn, applying theory and research on learning and principles of good instruction to designing online learning environments, making teaching (and learning) more visible and public, encouraging collaboration

and team work among staff (and students), offering greater access to learning for more people and increasing the skills and status of primary school teachers”

Aware of the significance of ICT educational programmes, governments in the world have adopted several measures to facilitate acquisition of ICT education by enhancement of education and training programme, providing an enabling environment for the development of ICT, provision of incentives for computerisation and automation and creation of venture capital (Pelgrum and Law, 2003). The field of education (Social Studies inclusive) has been affected by ICTs, which have undoubtedly affected teaching, learning, and research (Yusuf, 2005). A great deal of research has proven the benefits to the quality of education (Al-Ansari, 2006). 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 helping schools change (Davis and Tearle, 1999; Lemke and Coughlin, 1998; cited by Yusuf, 2005).

Carlson and Gadio (2002) stated that teacher training in the use of ICT is the best starting point in the ICT policy of a country because they are the key to making learning happen. This according to them is so because teachers who

succeed in making use of ICT in their work process, do not only contribute to improved learning outcomes in their students, but may also benefit personally from enhanced work productivity, reduced isolation and increased professional satisfaction. In a study of 26 education systems (Pelgrum and Anderson, 1999), found that lack of ICT knowledge and skills by teachers was perceived to be a major obstacle for attaining the schools ICT related goals, they equally found that there was a serious lack of skills related to pedagogical ICT use, the most challenging being how to make use of ICT to support and extend learning at the tertiary level of education. Developing teachers' ICT skills is then imperative.

Competencies that need to be developed at the early stage of ICT adoption will include according to Pelgrum and Law (2003) the training of teachers in the use of common office application programme, sending of e-mails, making use of the internet, use of ICT in subject based teaching and class room practices. Production of multimedia course materials, data analysis, e-library, video conferencing, networking and e-payments are other areas of competencies that teachers need to develop.

Thus, bearing in mind the existing ICT-poor school environments in Nigeria, a developing country, and the vastness of ICT capabilities, the

question that comes to mind include: what is the ICT competence of Social Studies teachers? This is the question that presents the problems of this study.

### **Purpose of the Study**

The purpose of this study generally is to investigate the ICT competence among Social Studies teachers. Specifically, the study sought to:

1. find out the ICT competence level among Social Studies teachers in the use of ICT in teaching and learning.
2. determine male and female Social Studies teachers competency level in the use of ICT in teaching and learning.
3. investigate rural and urban Social Studies teachers competency level in the use of ICT in teaching and learning.

### **Research Questions**

The following research questions were raised to guide the study:

1. What is the competency level of Social Studies teachers in the use of ICT in teaching and Learning?
2. What is the competency level of male and female Social Studies teachers in the use of ICT in teaching and learning?
3. Are there differences in rural and urban competency level of Social

Studies teachers in the use of ICT in teaching and learning?

### **Research Hypotheses**

The following hypotheses were formulated and were tested at .05 level of significant.

1. There is no significant difference in the competency level of Social Studies teachers in the use of ICT in teaching and learning.
2. There is no significant difference between male and female Social Studies teachers competency level in the use of ICT in teaching and learning.
3. There is no significant difference between rural and urban Social Studies teachers competency level in the use of ICT in teaching and learning.

### **Method**

This study employed the survey research design. The population for the study consisted of all 31 Social Studies teachers in the 16 public secondary schools in Sapele Local Government Area of Delta State. All 31 Social Studies teachers' were drawn for the study using the purposive sampling technique. Test retest method of establishing reliability was employed to determine the reliability of the instrument. Pearson r product moment correlation co-efficient was used to analyse the data collected; it gave a coefficient of .72. Data were collected

with the questionnaire tagged 'Social Studies ICT Competence Questionnaire (SSICOQ)' consisted of two (2) sections. Section A seeks demographic information on gender and location of teachers. While section B contained 14 items measured using a 4 point Likert type scale ranging from 'Not competent to 'Very competent'. The respondents were required to tick which best describe their competence from the options. The data collected were analyzed using descriptive statistics (percentages) to answer the research questions and hypotheses were analyzed using the t-test. All tests were carried out at the .05 level of significance.

### **Data Presentation and Analysis**

#### **Research Question 1**

What is the competency level of Social Studies teachers in the use of ICT in teaching and Learning?

**Table 1: Social Studies Teachers Rating of ICT Competency Level (N= 31)**

<b>Rating of competency level</b>	<b>Number</b>	<b>Percentage (%)</b>
High	10	32.26
Low	21	67.74

The results in Table 1 show that only 10(32.26%) of Social Studies teachers in this study rated their ICT competency level as high, while the majority 21(67.74%) rated their ICT competency level as low.

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**Table 2 Social Studies Teachers Rating of ICT Competency Level Based on Gender (N= 31)**

Gender	High		Low	
	Number	Percentage (%)	Number	Percentage (%)
Male	5	35.71	9	64.29
Female	5	29.41	12	70.59

With regards to Social Studies teachers ICT competency level based on gender, the results show that 5 (35.71%) of male Social Studies teachers rated their ICT competency level as high, 9(64.29) rated theirs level as low, while 5(29.41) of female Social Studies teachers rated their ICT competency level as high, 12(70.59) rated theirs level as low. This

finding implies that both male and female male Social Studies teachers ICT competency level is low.

**Research Question 3**

Are there differences in rural and urban competency level of Social Studies teachers in the use of ICT in teaching and learning?

**Table 3 Social Studies Teachers Rating of ICT Competency Level Based on Location (N= 31)**

Location	High		Low	
	Number	Percentage (%)	Number	Percentage (%)
Urban	9	64.29	5	35.71
Rural	1	5.89	16	94.11

A look at Table 3 show that 9 (64. 29%) of Social Studies teachers in urban area rated their ICT competency level as high, 5(35.71) rated their level as low, while 1(5.89) of Social Studies teachers in rural area rated their ICT

competency level as high, 16(94.11) rated their level as low. This finding implies that there is difference in rural and urban competency level of Social Studies teachers in the use of ICT in teaching and learning.

### Testing Hypothesis 1

Hypothesis 1 There is no significant difference in the competency level of Social Studies teachers in the use of ICT in teaching and learning.

**Table 4: t-test Result of Significance Showing the Difference in the Competency Level of Social Studies Teachers in the Use of ICT in Teaching and Learning**

Groups	N	$\bar{X}$	SD	Df	t.cal.	t-Crit
Less Competent	22	1.41	0.47	29	2.01	1.96
High Competent	9	1.98	0.79			

The result in table 4 shows that there exist significant difference in the in the competency level of Social Studies teachers in the use of ICT in teaching. This is because the calculated t (2.01) is greater than the critical t (1.96). This implies that there is significant difference in the competency level of

Social Studies teachers in the use of ICT in teaching and learning.

### Testing Hypothesis 2

Hypothesis 2 There is no significant difference between male and female Social Studies teachers competency level in the use of ICT in performance/teaching.

**Table 5: t-test Result of Significance Showing the Difference in the Competency Level of Male and Female Social Studies Teachers in the Use of ICT in Teaching and Learning**

Groups	N	$\bar{X}$	SD	Df	t.cal.	t-Crit
Male	12	1.38	0.47	29	0.90	1.96
Female	19	1.05	0.40			

The result in table 2 shows that there is no significant difference between male and female Social Studies teachers in the use of ICT in teaching and learning. The

calculated t of 0.90 was found to be less than the critical t value of 1.96. Thus, null hypothesis tested is accepted. This implied that Social Studies teachers in

the use of ICT in teaching and learning was not gender specific.

### Testing Hypothesis 3

Hypothesis 3 There is no significant difference between rural and urban Social Studies teachers in the use of ICT in teaching and learning.

**Table 3: t-test Result of Significance Showing the Difference in the Competency Level of Rural and Urban Social Studies Teachers in the Use of ICT in Teaching and Learning**

Groups	N	$\bar{X}$	SD	Df	t.cal.	t-Crit
Rural	9	1.27	0.40	29	2.04	1.96
Urban	22	2.83	1.83			

From the above table, the calculated t value of 2.04 is greater than the critical t value of 1.96. The null hypothesis tested is rejected. This implies that there is significant difference between rural and urban Social Studies teachers in the use of ICT in teaching and learning.

### Discussion of Findings

The results in Table 1 showed that the ICT competency level is low. Only 10(32.26%) of Social Studies teachers in this study rated their ICT competency level as high, while the majority 21(67.74%) rated their ICT competency level as low. This result is not encouraging as Social Studies teachers that rated their competency level as high (32.26%) is lower than those with high ICT competency level. This implies that the possibility of many Social Studies teachers making use of ICT in teaching and learning Social Studies is greatly limited if non-existent.

The result of the t-test analysis revealed that there is significant difference in the competency level of Social Studies teachers in the use of ICT in teaching and learning. Given this result, it can be said that the competency level of Social Studies teachers in the use of ICT in teaching and learning is still very low. This study confirms the finding of Pelgrum and Anderson (1999) that found out that training programme among primary school teachers is low. And that Acquiring ICT technical know-how is just the first level, beyond which many training programmes do not go. Also conform with that of Gülbahar (2008) in his study of ICT usage in higher education found that although pre-service teachers are willing to use technology but this rarely occurred because of the inadequacy of lessons to facilitate them with necessary skills to be technology competent teachers. In a study conducted by Banfi (1999),

BECTA (2001), 40% of principals of secondary schools indicate lack of interest among teachers in Czech Republic, Luxembourg, Lithuania and South Africa.

The findings in table 2 indicated that both male and female Social Studies teachers in the study lack the needed ICT competency. This is so because with a high competency level of 35.71% for male Social Studies teachers and 29.41% for female Social Studies teachers, it showed that gender is not criteria for ICT competency. It is disheartening that in this era of technology, Social Studies teachers are still not competent in making use of ICT for purposes of teaching and learning. However, the t-test analysis of the two groups in table 5 showed that calculated t-value is less than the t-critical value and so the null hypothesis was up held. The findings of this study are in line with that of Hager, Gonczi and Athanasou (1994) and Marcelle (2000) that most secondary school teachers in Nigeria (Social Studies teachers not left out) are ill equipped for the application of ICT. In a study by Archibong and Effiom (2009), lack of interest, limited access to ICT facilities and lack of training opportunities were among the obstacles to ICT usage among secondary school teachers and that this has to do with both male and female teachers. This implies that competency level in the use of ICT in teaching and teaching cut across sex/gender; therefore, Social Studies teachers in the use of ICT in

teaching and learning cannot be affected by gender.

The result in table 3 also revealed that teachers in the urban centres have high competency level than their rural area counterparts. 9 (64.29%) of the Social Studies teachers in urban area were rated with high ICT competency level as against 1(5.89%) in the rural area. The reason for this could be attributed to facility-related challenge such as availability and access to social and ICT facilities. Nevertheless, the t-test of the two groups revealed that significant difference exist between rural and urban Social Studies teachers in the use of ICT in teaching and learning. The result of tables 6 is in consonance with Adeosun (2010) who concluded that the challenges to ICT utilisation in the Nigerian Secondary School Education involve the lack of training opportunities for teachers. The study also showed that most teachers in secondary do not use ICT in teaching students, for administrative purpose and for their personal purpose. It observed that most of these teachers lack the knowledge, competence to use ICT to facilitate teaching-learning process. This Jegede (2009) attributed to non availability of ICT facilities mostly in the rural areas. He believed that the non availability of these facilities greatly hinders access and inadequate training of teachers on the use and application of the computer. Access and proximity to ICT facilities in the rural areas pose problem to teachers. Even those that are ICT literate lack the



necessary facilities at their workplaces. Electricity supply which is critical to the usage of ICT facilities is very epileptic in Nigeria which makes the ownership of a power generator mandatory for ICT users. This fact coupled with financial constraints pointed out earlier indicates why electricity is a major obstacle in the use of ICT by academic staff. This result is similar to earlier finding by Archibong and Effiom (2009) in which teachers revealed that power failures and inaccessibility of ICT facilities as obstacles to their ICT usage.

### **Conclusion**

The findings have shown that has established that the competency level of Social Studies teachers in the use of ICT in teaching and learning is low. Majority of the Social Studies teachers in this study rated their ICT competence as low. Finally, it was also concluded that the major challenges to ICT usage among Social Studies teachers in the use of ICT in teaching and learning were related to funding, facilities and work load.

### **Recommendations**

Given the above conclusions, it is recommended that:

1. Provision should be made for continuous retraining of Social Studies teachers on ICT since development in technology is dynamic and the teachers need to keep abreast with current trends.

2. Government should ensure that ICT policy statements are translated into reality.
3. Social Studies teachers should have a rethink towards the use of ICT in teaching and learning and make time to improve their competences irrespective of their workload.

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