IMPROVING SKILLS OF SOCIAL STUDIES TEACHERS THROUGH ICT TRAINING FOR ITS FACILITIES UTILIZATION IN CLASSROOM PEDAGOGY IN BENEUE STATE, NIGERIA

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ABSTRACT: This study examines skills of Social Studies teachers through ICT training for its facilities utilization in classroom pedagogy in Benue State. The study also investigated skills of Social Studies teachers across gender. The study was guided by two research questions while two hypotheses were formulated and tested at 0.05 level of significance. The design of the study was one group pre-test post-test quasi-experimental design. The population of the study consisted of 508 Social Studies teachers from the 303 Upper Basic Schools in the three Education Zones of Benue State. The sample of the study comprised 244 Social Studies teachers of 130 males and 94 females drawn through multistage sampling techniques. Data were collected using researcher made instruments entitled “Teachers ICT Skills Observation Scale” (TISOS). TISOS was subjected to reliability analysis using Cronbach Alpha which yielded a reliability coefficient of 0.82. Data collected were analyzed using mean and standard deviation to answer the research questions while the t-test was used to test the hypotheses at 0.05 level of significance. The result indicated that there was a significant difference in the mean skills scores of Social Studies teachers before and after exposure to ICT training for its facilities utilisation in classroom pedagogy (P=0.000<0.05). It was equally indicated that there was no significant difference in the mean skills scores of male and female Social Studies teachers before (p = 0.615 > 0.05) and after (p = 0.269 > 0.05) exposure to ICT training for its facilities utilisation in classroom pedagogy. Based on the findings, it was recommended among others, that Social Studies teachers be encouraged to avail themselves of the opportunities of any ICT training provided as this could help them improve on their skills and enhance their teaching towards the use of ICT facilities in classroom pedagogy. It was suggested that this study be replicated in other subject areas to allow room for more generalization and applicability.

Keywords: ICT, Training, Skills, Utilisation and Social Studies

I. INTRODUCTION

The major aim of teaching is to enhance learning which consists of a worthwhile change in attitude, perception, and acquisition of new skills and knowledge that could equip the learner for improved performance in school and life in general. Unfortunately, there is a glaring gap between these aims and what is attainable in the society. Social Studies curriculum at the secondary school level seems not to have achieved its objectives as the expected impact on the learner in the society is still far-fetched. Many Social Studies teachers teach without the use of digital tools even in this computer age. The quality of the teachers and classroom facilities seem inadequate and obsolete. The teaching of Social Studies is still teacher-centered. More so that students are passive learners. These problems could leave one in doubt of the effectiveness of the Social Studies classroom instruction at the secondary school level.

The advent of Information and Communication Technology (ICT) is designed with an intended objective to increase the active participation of learners with a view to discouraging passive learning (Cheka, 2008). In other words, ICT appears to change instructional mode with the application of digital tools as instructional materials. These tools include internet chat, computer, telephone, cameras, and email.

The teacher needs to acquire basic skills to use these modern tools for Social Studies instruction has become imperative since Social Studies teachers must meet with the demand of the 21st
century. The teacher in the time past was regarded as all knowing and all giver of knowledge. The teacher's major task was then to transfer knowledge or skills to those who need to acquire them. Students' activities were limited to the class while receiving ideas of the teacher. Today, a teacher recognizes that he/she is a learner just as the student. A teacher's role has thus shifted from that of a monopolist of ideas and knowledge to that of guidance of learning activities. In this connection, therefore, a Social Studies teacher is someone who has trained in the area of Social Studies education with the knowledge, ideas, and skills to create the necessary conditions that will make the teaching/learning of Social Studies meaningful to the individual learner and the society at large. Shaibu (2015) observes that in spite of the advantages associated with ICT in the teaching and learning process, most Social Studies teachers do not use digital tools for classroom teaching. Could it be that Social Studies teachers are yet to acquire ICT skills to enhance the use of these facilities in classroom pedagogy?

Factors such as access to ICT facilities, teachers' expertise (skills) in ICT, and utilization in schools. There is widespread awareness that the pedagogical and computer skills of a teacher are absolutely critical in the teaching and learning process (Nwokeocha & Ezeahurukwe, 2012). ICT skill is defined as one's ability to handle a wide range of varying computer and ICT related applications for various purposes (Kau, 2011). According to Jegede (2009), teachers' ICT skill is a major factor in utilizing ICT in teaching. Evidence suggests that majority of teachers who reported negative or neutral attitude towards the utilization of ICT in the teaching and learning process lacked ICT skills that would allow them to make "informed decision" (Ugwu, 2011).

Teachers' skills in ICT are strong determinants of ICT integration. However, they are conditions for effective use of technology in the classroom (Tedia, 2012). The author argues that training programmes that concentrate on ICT pedagogical training instead of technical skills and effective technical support could help teachers to apply technologies in teaching and learning. Teachers may adopt and integrate ICT skills into their teaching as training programmes concentrate on the subject matter, values, and technology. Similarly, research by Orey (2010) showed that teachers require an expert in technology to teach them how to integrate ICT to facilitate students' learning. Teachers' understanding of content knowledge and how to apply technology to support students' learning and attainment are joined to their increase in ability level and confidence, towards technology. According to Chen (2008), professional training courses must be designed to identify values about successful teaching, policies for enhanced teaching and learning and syllabus design for teaching purposes.

Despite the laudable efforts of federal government to improve digital content for schools and provision of ICT facilities for effective classroom pedagogy, Social Studies teachers have continued to use the stereotypical methods devoid of ICT integration in classroom pedagogy. It has been observed by this researcher that not much seems to have been done about the continuous professional development of teachers who are saddled with the task of guiding students through the learning process, these teachers seem not possess adequate skills on the use of ICT even when the facilities are available.

This means that teachers often do not use modern tools that match the demand of the present technologically-driven era. Many factors may have hindered Social Studies Teachers from being part of this teaching innovation. Majorly among these factors could be teachers' poor ICT skills. The teachers' gender could also affect their ICT utilization in classroom.

It is against this background therefore, that this study examined if skills of Social Studies teachers could be improved through ICT training for its facilities utilization in classroom pedagogy.

Review of Related Literature

This study is hinged on constructivist theory propounded by Bruner in 1966. It assumed that learning is an active process in which learners constructed new ideas or concepts based upon their current/past knowledge. A learner selected and transformed information, constructed a hypothesis, made decisions and relied on a cognitive structure to do so. Cognitive structure, according to Bruner (1966), provides meaning and organizations to experiences and allows the individual to go beyond the information given.

Bruner considered instruction as an effort to assist or shape the cognitive growth of an individual. The task of the instructor is to translate information to be learned into a format that is appropriate to the learner's current state of understanding. The curriculum should be organized in a spiral manner. This means that information should be structured in such a way that a complex idea could be taught at a simplified level before going to a more complex level. This suggests the idea of teaching from known to unknown. When teaching is done in this way, it leads children to solve problems by themselves.

Bruner believed that a learner should focus on his or her own reflection. By reflecting on the process, it allows learners to really understand the steps they were expected in achieving a particular outcome. Bruner's constructivist theory is related to this study because attention to social studies teaching
and learning in the 21st century needs to be shifted to the instructional innovations that are consistent with the constructivist theory. Social Studies teaching and learning is expected to be tailored towards a student-centered constructive approach which incorporates multiple and varied sources of information, increased emphasis on group processes and student-generated questions to guided inquiry.

Moreover, the utilization of ICT facilities in Social Studies based on this theory stresses the need for collaboration among learners and with practitioners in the society. The theory also includes peering collaboration among others which could influence all methods that involve learning with others. Using ICT facilities as instructional tools could evoke learning potentials that are possible when technological facilities are part of the instruction. These facilities could avail the teacher and learner with new forms of information access which could be used to achieve the outcome of instruction in Social Studies. Using these facilities might be difficult for the Social Studies teacher if the basic skills are not acquired.

Teachers may have difficulty in using ICT for lack of skills of the computer that would enable them to make "informed decisions. Akpen (2012) maintains that the inability to use technology could be attributed to an insufficiency of teachers' technical knowledge and skills to prepare materials based on technology. This implies that equipping schools with ICT are not enough for attaining educational change. Hamilton-Ekeke and Mbachu (2015) believe that the inadequacy of technology courses offered to teachers may affect ICT utilization. The authors explains that teachers are often not taught how to revise their pedagogical practices, to replace older traditional lessons without depleting the curriculum coverage hence teachers’ required extensive, ongoing exposure to ICTs to be able to evaluate and select the most appropriate resources. In view of this Ogunsola (2008) in his study reported that training can provide general computer skills to teachers and teachers need to practice in order to familiarized and gain experience in using the computer.

For teachers to acquire necessary ICT skills there is the need for training (Shaner, 2010). The training should include the potentials of ICT to assist in the construction of new knowledge and understanding of the roles of ICT in teaching of Social Studies. According to the authors, qualified teachers’ ICT skills include the ability to use ICT confidently and effectively, familiarity with a range of ICT equipment and software, ability to develop an understanding of ICT and his capability to effectively use technology to support students’ learning.

Researchers such as Albert (2010), Edinyang and Ihejiamaizu (2011) are of the view that improving the quality of instruction depends upon a teacher’s training and development. In this case, teachers have to be trained to view ICT as a resource and to use technology in classroom activities. Adeosun(2010) adds that education authorities are responsible for teachers training, as it is the only way to enhance the literacy level of teachers in ICT.

With the changing roles of teachers, they are expected to have good computer literacy, including skills for using basic computer applications, multimedia, desktop publishing and presentation of software and communication learning technologies in key areas (Aishah & Zema, 2017). These basic skills level can be used to operate ICT in classroom pedagogy. A teacher’s skills are also acquired through discovery and practice. However Philip, (2009) and Sani (2014) carried out a research which examined the nature and impact of ICT training received by teachers educators. The result showed that more than half of the educators had been exposed to one form of ICT training or the other. But training had hardly included the use of ICT in instruction. Most of those trained received their training directly from the institution. Educators preferred mostly the inclusion of software skills on teachers’ ICT training curriculum. It was also found that training delivery has no varying effect on basic ICT skills. Reporting on gender, Mustafa(2014) in his study on effects of gender differences in ICT application found out that, there was gender difference in terms of ICT knowledge, skill, and ICT application. The male teachers had better ICT knowledge and skills than their female counterpart. According to the researcher, this could be due to the fact that male teachers had a better attitude towards ICT than their female counterparts. This finding shared similar view with Kaarakainen, Kavinen, and Kaarakainen (2014). The findings of the study revealed that there were significant differences in the ICT skills scores of male and female students, it was further shown that male student has a higher score in the ICT skill test than the female’s students even though more Females were involved in the test than their male counterpart.

There is a need to stress teachers’ ICT skills towards the use of ICT facilities. According to Hennessy, Harrison and Wamakole(2010), teachers with more ICT experiences have greater confidence in their ability to use the facilities effectively. Adodo and Adare (2009) report that improved teachers’ ICT skill could guarantee teachers’ successful utilization of the facilities in classroom pedagogy. This study, therefore, was undertaken to find out if improving Social Studies teachers' ICT skills through training could be effective in utilizing ICT facilities in Social Studies classroom pedagogy.

Research Question
1. How do the mean skills scores of Social Studies teacher differ before and after exposure to ICT training in the utilization of ICT facilities in classroom pedagogy?

2. What is the mean skills scores difference between male and female Social Studies teachers before and after exposure, to ICT training in the utilization of ICT facilities in classroom pedagogy?

**Hypotheses**

1. There is no significant difference in the mean skill scores of Social Studies teachers before and after exposure to ICT training in the utilization of ICT facilities in classroom pedagogy.

2. There is no significant difference in the mean skill scores between male and female Social Studies teacher before and after exposure to ICT training in the utilization of ICT facilities in classroom pedagogy.

**II. METHOD**

The design of this study is the one group, pre-test post-test quasi-experimental design. The area of this study was Benue State, Nigeria. The population of this study comprised 508 (294 male and 214 female) Social Studies teachers from the 303 Upper Basic Schools in the three Education Zones of Benue State (Teaching Service Board, 2017). A sample of 224 Social Studies teachers (130 males and 94 females) was selected from 36 Upper Basic Schools across the three Education Zones of Benue State using a multi-stage sampling technique.

The instrument used for data collection was; Teachers ICT Skills Observation Scale (TISOS) developed by the researcher. The TISOS contained 20 items on computer skills which were rated on a continuum of Not Skillful (1), Moderately Skillful (2) Skillful (3) and very Skillful (4). The validity of the instrument was established by four experts in Benue State University. The experts were from Measurement and Evaluation, Social Studies Education all in the Department of Curriculum and Teaching and Information Communication Technology Unit of Benue State University, Makurdi. The experts were requested to check for the clarity or simplicity of language and suitability of the items in the TISOS in relation to the objectives of the study. In this way, the face, content and construct validities of the study were established.

The TISOS was administered as a pre-test by the researchers in all the sampled schools in the first week of the research before the commencement of the training. The training exercise lasted for four weeks. After the training, the respondents’ were given a period of another four weeks to apply and practice the knowledge acquired during the training in their teaching before the post-test was administered. The post-test was a reshuffled version of the pretest. The scores were collated and analyzed using mean and standard deviation to answer the research questions. While the dependent and independent t-test was used to test the null hypotheses at a 0.05 level of significance respectively.

**III. RESULTS**

**Research Question 1**

How do the mean skills scores of Social Studies Teacher differ before and after exposure to ICT training for utilization of ICT facilities in classroom pedagogy?

<table>
<thead>
<tr>
<th>Table 1: Mean and Standard Deviations of Skills Score of Social Studies Teacher</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean</td>
</tr>
<tr>
<td>PreTISOS</td>
</tr>
<tr>
<td>POSTISOS</td>
</tr>
<tr>
<td>Mean Gain</td>
</tr>
</tbody>
</table>

Table 1 showed that the Social Studies teachers’ mean ICT skills score was 1.90 with a corresponding standard deviation of 0.11 before training. On the other hand, mean ICT skills scores of 3.05 with a standard deviation of 0.13 was found after training for the Social Studies teachers. The mean gain in the ICT skills scores was 1.15. The mean gain indicated that the Social Studies teachers acquired ICT skills for utilization of ICT facilities in classroom pedagogy after training.

**Research Question 2**

What is the mean skills score difference between male and female Social Studies Teachers before and after exposure to ICT training in the utilization of ICT facilities in classroom pedagogy?

<table>
<thead>
<tr>
<th>Table 2: Mean and Standard Deviations of Skills score of Male and Female Social Studies Teachers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
</tr>
<tr>
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</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Gender</th>
<th>N</th>
<th>Pre-Test Mean</th>
<th>SD</th>
<th>Post-Test Mean</th>
<th>SD</th>
<th>Mean Gain</th>
</tr>
</thead>
</table>

The table above shows the mean skills score difference between male and female Social Studies Teachers before and after exposure to ICT training in the utilization of ICT facilities in classroom pedagogy.
Table 2 showed that before training, the pre-test mean skills score of male Social Studies teachers was 1.90 with a corresponding standard deviation of 0.12 while that for female Social Studies teachers was 1.91 with a corresponding standard deviation of 0.11. After the training, the post-test mean skills score of male Social Studies teachers was 3.04 with a corresponding standard deviation of 0.14. The post-test mean skills score of female Social Studies teachers was 3.06 with a corresponding standard deviation of 0.11. A mean gain of 1.14 was found for male Social Studies teachers while the mean gain of 1.15 was found for their female counterparts. The difference in the mean skills score was 0.01 in favour of female teachers. The mean difference even though very small, implied that the female Social Studies teachers acquired basic skills in ICT for utilization in classroom pedagogy more than their male counterparts after exposure to ICT training.

**Hypothesis 2**

There is no significant difference in the mean skill scores of Social Studies Teachers before and after exposure to ICT training for utilization of ICT facilities in classroom pedagogy.

**Table 3: T-test of Difference in Mean Skills Scores of Social Studies Teachers before and after exposure to ICT Training**

<table>
<thead>
<tr>
<th>Test</th>
<th>N</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>t</th>
<th>df</th>
<th>Sig.(2-tailed)</th>
</tr>
</thead>
<tbody>
<tr>
<td>TIBKT Pre-Test</td>
<td>224</td>
<td>1.90</td>
<td>0.11</td>
<td>256.78</td>
<td>223</td>
<td>0.000</td>
</tr>
<tr>
<td>TIBKT Post-Test</td>
<td>224</td>
<td>3.05</td>
<td>0.13</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mean Gain</td>
<td></td>
<td>1.15</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 3 revealed that t = 256.78 at df = 223; p = 0.000 < 0.05. Therefore, the null hypothesis was rejected. This implied that there was a significant difference between the mean skills scores of Social Studies teachers before and after exposure to ICT training for utilization of ICT facilities in classroom pedagogy. Thus, based on evidence from data available, exposure to ICT training for utilization of ICT facilities in classroom pedagogy had a significant influence on the mean skills scores of Social Studies teachers.

**Hypothesis 2**

There is no significant difference in the mean skill scores between male and female Social Studies teacher before and after exposure to ICT training for utilization of ICT facilities in classroom pedagogy.

**Table 4: T-test of Difference in Mean Skills Scores between Male and Female Social Studies Teachers before and after exposure to ICT Training**

Table 4 revealed that before ICT training, t = 0.50 at df = 223; p = 0.62 > 0.05.

<table>
<thead>
<tr>
<th>Test</th>
<th>Gender</th>
<th>N</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>t</th>
<th>df</th>
<th>Sig. (2-tailed)</th>
</tr>
</thead>
<tbody>
<tr>
<td>PRETISOS</td>
<td>Male</td>
<td>130</td>
<td>1.90</td>
<td>0.12</td>
<td>0.50</td>
<td>223</td>
<td>0.62</td>
</tr>
<tr>
<td>Female</td>
<td></td>
<td>94</td>
<td>1.91</td>
<td>0.11</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>POSTISOS</td>
<td>Male</td>
<td>130</td>
<td>3.04</td>
<td>0.14</td>
<td>1.11</td>
<td>223</td>
<td>0.27</td>
</tr>
<tr>
<td>Female</td>
<td></td>
<td>94</td>
<td>3.06</td>
<td>0.11</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

This implied that there was no significant difference in the mean skills scores of male and female Social Studies teachers before exposure to ICT training for utilization of ICT facilities in classroom pedagogy. The table further revealed that after ICT training, t = 1.11 at df = 223; p = 0.27 > 0.05. This again, implied that there was no significant difference in the mean skills scores of male and female Social Studies teachers after exposure to ICT training for utilization of ICT facilities in classroom pedagogy. Therefore, the null hypothesis was not rejected. This implied that there was no statistically significant difference in the mean skills scores of male and female social studies teachers before and after exposure to ICT training for utilization of ICT facilities in classroom pedagogy. Thus, based on evidence from data analysis, exposure to ICT training for utilization of ICT facilities in classroom pedagogy had no gender bias with reference to skills acquired.
IV. DISCUSSION OF FINDINGS

The finding of this study further revealed that there was a difference between the mean skills scores of Social Studies teachers before and after exposure to ICT training. Thus after the training, teachers’ ICT skills improved considerably. When teachers were given the opportunity to become acquainted with newly introduced technology, they would be able to use them appropriately in the classroom. This finding contradicted the earlier findings by Sani (2014) and Philip (2009) that teachers’ overall skills and competence acquired by the respondents after training was low and that training delivery had no effect in ICT skills of teachers. The reason for this variance in result could be that the training received did not include the use of ICT facilities in the classroom. For instance, the training focused on general knowledge of information communication technology. If how the facilities could be applied in the classroom was not part of the training as it was done in the present study, Another possible reason for low ICT skills of teachers after exposure in the previous researches could be lack of practice after the training. Supporting this view, Ogunsola (2009) asserts that training could provide the general computer skills to teachers yet teachers need to practice the skills in order to perfect on using them when the need arises. Aisha and Zema (2017) suggest that basic ICT skills level could be used to operate their facilities in classroom and that teacher could acquire these skills through discovery and practice.

Inadequacy of ICT courses for teachers could be a possible reason for the low ICT skills of teachers in ICT utilization after exposure. Teachers require intensive training in ICT in order to be able to select the appropriate ICT resources for use in the classroom. Another reason for low ICT skills of teachers could be lack of access to ICT facilities. Even in schools where ICT facilities are available, if such facilities are not put to constant use, teachers could be denied the benefits associated with them.

The result of this study suggested that continuing ICT training and capacity development of teachers were necessary to improve on teachers’ skills towards ICT utilization in the classroom.

The findings showed no statistically significant difference as in the mean skills scores of male and female Social Studies teachers before and after exposure to ICT training. Exposure to ICT training for utilization of ICT facilities in classroom pedagogy has no gender bias with reference to skills acquired due to the fact that male and female social studies teachers were given equal opportunities to avail themselves for the training. The training manual was also gender friendly as both parties have the equal privilege to access and practice with the available facilities. The training manual was also gender friendly as both parties have the equal privilege to access and practise with the available facilities. This finding is in disagreement with Mustafa (2014) Kaarakaine, Kivine, and Kaarakaine (2014). Mustafa (2014) examined gender difference in terms of knowledge, skills, and application of ICT facilities in secondary schools and found that there were gender differences in terms of knowledge, skills, and application. This was supported by the result which showed that male teachers had better ICT knowledge and skills than their female counterparts. Kaarakaine, Kivine, and Kaarakaine (2014) found that there was a significant difference in ICT skills as male students had a higher score in ICT skills test than the female students.

The reason for these differences in result could be that teachers were not well prepared in the use of ICT facilities hence the disparity in skills between male and female teachers. In this vein, adequate skills and quality preparation in ICT usage could most likely help to reduce gender inequalities in teaching Social Studies.

V. CONCLUSION AND RECOMMENDATIONS

Based on the evidence provided in this study, it was concluded that Social Studies teachers’ skills are significant factors in the utilization of ICT facilities in classroom pedagogy. The finding of this study also provided empirical evidence that ICT training improved Social Studies teachers’ skills towards ICT facilities utilization in classroom pedagogy. This clearly indicated that using ICT facilities in classroom pedagogy was dependent on the skills acquired from the capacity development of the teachers. Improving teachers’ skills for its facilities utilization were also gender friendly as all gender shows improvement in skills after the ICT training.

Based on the findings and conclusion from the study, the following recommendations are made:
1. Curriculum developers should develop relevant curricula that take the ICT needs of teachers and students into consideration. Such curricular should integrate appropriate ICT training programme for Social Studies teachers at all levels of education to improve their ICT skills for utilization.
2. Formulation of policies on education should include professional development of Social Studies teachers on their ICT utilization in the classroom and such policies should be gender sensitive.

REFERENCES


