

# Proficiency Of Teachers In The Use Of ICT In Teaching Social Studies: A Case Of Selected Senior High Schools In The Amansie West District In The Ashanti Region Of Ghana

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**Abstract:** *The study seeks to determine the proficiency level of teachers in the use of ICT in teaching social studies. It further looked at the perception of teachers toward the use of ICT in teaching social studies. The last objective was to find the problems teachers face in incorporating ICT in teaching social studies. A total of 28 teachers were sampled to respond to the questionnaire. A census approach was used to sample the teachers for the study. A questionnaire was used to collect the data, and the descriptive statistic was used to analyse the data with SPSS Version 22. The findings show that most of the teachers were very proficient in the use of ICT in teaching. The results also indicate that most teachers have a good view of ICT in teaching. Again the study revealed that a more significant number of the teachers suggest that there are factors that prevent them from incorporating ICT in teaching their subject. The research recommended among others that Ghana Education Service must team up with the heads and teachers of the various SHS to make adequate time for teachers to incorporate ICT in their lessons.*

**Keywords:** *ICT, Media, Proficiency level, Perception, Technology, Teachers, Social Studies*

## I. INTRODUCTION

Computer and Web technology are commonplace in every sector; be it medicine, tourism, education, culture, among others. Researchers believe that the Ghanaian teaching and learning environment still reflects the colonial system of education and is lagging in technology usage and adaption despite the recent universal technological move. The government of Ghana has embarked on various projects to inculcate Information and Communication Technology into the educational system; an example is the ICT in Education Policy 2015.

However, the situation remains almost the same. Researchers strongly believe that if teachers are proficient in this area and are prepared to use Information and Communication Technology (ICT) in teaching and learning there will be a massive improvement in education. It is against

this background that this study seeks to assess the attitude and proficiency of teachers in integrating ICT tools in teaching Social Studies.

## II. BACKGROUND TO THE STUDY

It is understood that in order for Ghana to make any meaningful progress in its socio-economic development efforts, considerable resources would have to be directed towards enhancing the quality of education. The vital role that technologies can play in widening access to education to a broader section of the population and literacy education for facilitating educational delivery and training at all levels has been recognised as a critical priority area under the current Education Reforms (2007). International experience from both developed and developing countries have shown that

technologies have an enormous potential for knowledge dissemination, knowledge acquisition, practical learning and the development of more efficient education services (Ministry of Education, 2008).

ICT benefits in teaching have been proven by several studies to be useful tools to convey complicated concepts and ideas interestingly (Zheng, Warschauer, Lin, & Chang, 2016; De Sousa, Richter, & Nel, 2017). Shah and Khan (2015) highlighted that the on-screen animation and knowledge offered a diverse learning environment from the written text, which aided to increase critical thinking. Media resources are very significant when it comes to teaching and learning, according to Makewa, Role and Ngussa (2012). They also argue that instructional tools are essential to any subject's teaching. On the use of audiovisual and ICT resources in teaching those subjects, De Sousa and Van Eeden (2009) recommended the use of ICT materials in teaching history to improve comprehension and active learning. Similarly, ICT supports were stated to be helpful to geographical learning as patterns, maps and activities were provided (De Sousa and Van Eeden, 2009).

From the above discussion, it is evident that ICT tools, when used appropriately makes the learning process more effective. Regrettably, research studies indicate that most teachers do not take advantage of the ability of ICT tools to contribute to the quality of learning environments, even though they greatly value this ability (Smeets, 2005). This problem cuts across several disciplines at the Senior High School level. However, the most predominant case, from our experience as teachers, is the negative attitude of students towards the study of social studies due to the pedagogical approaches of some social studies teachers.

The social studies programme, which focuses on citizenship education, was introduced in Ghana's educational system as one of the measures to address the problems of the preference for white-colour jobs and negative attitudes toward agriculture and manual work (Kankam, 2012). Pryor, Gharthey, Kutor, and Kankam (2005) believed that the systematic acquisition of information social studies is an important component in improving human relationships in both the social and physical environment. Therefore, the importance of social studies as part of the Ghana school curriculum cannot be underestimated (Kankam, 2012).

A cursory look at the multidisciplinary content and child-centred pedagogical approaches to the social studies curriculum calls for creativity in the delivery of its content. This requires teachers to be very creative during the instructional process. The Ministry of Education has also proposed that child-centred education be introduced in schools to ensure the teaching and learning process in the classroom is very effective. However, many teachers also want to use the conventional approach, which results in making social studies seem like a dumb topic for students. Lawson (2003) posits that students pay little or no attention during social studies lesson because they find the subject very dull, not exciting and an avenue for them to sleep and relax as a result of the method used by the teachers.

ICT teaching aids are one way of improving lesson plans and offering additional ways for students to access topic knowledge (Kunari, 2006). ICT aids introduce information

units via auditory or visual stimulation, often to promote learning.

Judging from the manifold benefits of ICT aids to the teaching and learning process its integration into social studies lessons could be one remedy to the negative attitude students have developed for social studies over the years and their abysmal performance in the subject over the years. It is therefore against this background that the researchers want to investigate the attitude of teachers and their proficiency in integrating ICT tools in teaching social studies.

### III. STATEMENT OF THE PROBLEM

Many countries see Information and Communication Technologies (ICTs) as a critical foundation for sustainable socio-economic growth in the long term. These countries have therefore developed policies and strategies for harnessing ICT capacity (Frempong, 2010). Usage of ICTs is generally rising in Ghanaian schools and African countries and is growing dramatically. Nonetheless, while there is much awareness about how ICTs are being disseminated and used in high schools in developed countries, there is not much information about how teachers and students use ICTs in Ghanaian schools (Amenyedzi, Lartey, and Dzomeku, 2011). New research on the pedagogical adoption of ICTs in 10 Ghanaian schools from 2009-2011 shows that there is a difference between the policy guidelines and real school practices (Mereku & Yidana, 2011).

In support of the above study, a casual observation by the researchers in two senior high schools in the Amansie West District revealed that despite the availability of ICT tools in their schools, the teachers there were not integrating ICT in their teaching and also even ICT teachers seldom use ICT in teaching. The question that immediately popped up was, were the teachers not adequately prepared to integrate ICT in their teaching? Or if they were prepared what (aside from the availability of ICT tools) was hindering them in integrating ICT in their teaching? Also noticed was students' comments towards social science. Researchers saw students passing comments such as 'social studies is too boring', 'social studies does not benefit us after school, all we do is reading', 'Our social studies teacher makes the social studies class less interesting, he is always reading from the textbook'. With such comments, it is apparent that students have developed a negative attitude towards social studies, and it is because of the pedagogical approaches of their teachers. The researchers also discovered that due to students' negative approach to social studies, they were unconcerned with their performance in social studies. This made the researchers believe that the students' poor attitude towards the subject due to the traditional methods of teaching employed by their teachers might be the reason they are performing poorly in social studies whether at the schools' internal examination or the West Africa Senior Secondary School Certificate Examination(WASSSCE). Since one cannot base on just an observation to conclude, researchers deemed it appropriate to conduct a study on teachers' proficiency and attitude towards integrating ICT in teaching. Moreover, it appears no research work has been conducted in the Amansie West District on the

teachers' attitude towards incorporating ICT in education hence the need for this research.

#### IV. OBJECTIVE OF THE STUDY

The objective of the study was to investigate the attitude of teachers towards the inclusion of ICT in social studies education. The study's aims were explicit to:

- ✓ Determine the proficiency level of teachers in the use of ICT in teaching
- ✓ Find out teachers perception in using ICT to teach
- ✓ Identify potential problems that prevent teachers from incorporating ICT in their teaching

#### V. RESEARCH QUESTIONS

These research questions were developed to direct the analysis:

- ✓ What is the proficiency level of teachers in the use of ICT in teaching social studies in the selected senior high schools in the Amansie West District?
- ✓ What are the perceptions of teachers towards the use of ICT in teaching social studies in the selected senior high schools in the Amansie West District?
- ✓ What are the problems that prevent teachers from incorporating ICT in teaching social studies in the selected senior high schools in the Amansie West District?

#### VI. LITERATURE REVIEW

##### THEORETICAL REVIEW

The research focused on two theories, Dual Coding Theory, and Dale's Cone of Experience.

##### DUAL CODING THEORY

This study was based on the Dual-Coding Theory and some other theories related to ICT in teaching. Allan Paivio developed this theory of cognition in 1971 at the University of Western Ontario. He firmly believed that mental images, when formed in mind, aids in teach (Reed, 2010). According to Paivio, an individual can expand on learned material by verbal associations and visual imagery.

This theory is essential to this study because it makes it clear that a person's ability to store a concept in two distinct paths or ways increases one's ability to recall that concept as compared to when that individual stores it in only one way. That is when students are taught social studies with ICT aids; they can store whatever they are taught both in the image concept and the word concept. This will increase and improve their level of understanding resulting in higher academic achievement.

##### DALE'S CONE OF EXPERIENCE

Edgar Dale created Dale's Cone of Experience in the 1960s. His model combines several theories that have a significant link with instructional design and the learning process. Edgar Dale asserted that students or learners could absorb more of what they do as compared to what they hear, read or observe. This was the foundation for the creation of the cone of experience.



Source: Anderson (<http://www.edutechie.ws/2007/10/09/cone-of-experience-media/>)

Figure 1: A diagram of the cone of experience theory

This theory is essential to this study because it makes one understand that for students to retain 90% of what they are taught, they need to be fully engaged in the instructional process. Now when ICT aids are employed in the teaching and learning process, it involves most of the sensory organs of students and also makes learning more real to students. This theory, therefore, supports the incorporation of ICT aids in the instructional process. Hence it will help researchers or teachers effectively knowing the influence of ICT aids on the academic achievement of students.

##### PROFICIENCY LEVEL OF TEACHERS IN THE USE OF ICT IN TEACHING

Despite the increasing number of research on the adoption and use of ICT in education, it has been suggested in several pieces of literature (Olatokun and Kebonye, 2010; Hussain and Safdar, 2008; Boakye and Banini, 2008) that there is the need for further investigation on the level of ICT adoption and use as well as the impacts of its use in different context worldwide, especially in developing countries. Studies in the area of ICT use in higher education are still under-researched in many sub-Saharan African countries, and Ghana is no exception. For example, Aleke, Wainwright, Ojiako and Maguire (2009) have noted that the impacts of the use of ICT applications have not been explored thoroughly in the developing countries.

Boakye and Banini (2008) examined teachers' readiness to use ICT from schools in Benin, Cameroon, Ghana and Mali to determine whether the teachers were involved in the process of integrating ICT into education in those countries. Teachers were asked about their ICT expertise and the application of ICT in their pedagogical activities. Seventy-one per cent of the teachers surveyed had never used the device in class; while ten per cent used it for classroom events. Approximately 44 per cent had never used the machine to make lesson notes, while

49 per cent had never done so. A third of those who used it in making lessons did so 'always' and the rest 'occasionally'. These uses included using the tool to review Internet content, typing out lecture notes and creating materials for teaching and learning. Around 60 per cent of teachers find themselves to be informed around web surfing, with 71 per cent using email. Up to 78 per cent of teachers have learned how to use computers on their own. Although some teachers did not use ICT at all, they usually accepted that the machine changed the way students learned.

#### TEACHERS PERCEPTION IN USING ICT TO TEACH

In a survey of 170 secondary school teachers in New Zealand, Lai and Pratt (2004) found that 82% of the teachers considered ICT to be beneficial to their teaching but not in the field of delivery methods and practice in the classroom. Significantly, the most apparent effect identified by the teachers was not a change of philosophy or pedagogy but improved efficiency in the administration and management of teaching, including lesson preparation and presentation. Similar findings were reported by Balanskat, Blamire, and Kefalla (2006) in their review of the ICT impact studies conducted in Europe. They found that ICT use enabled teachers to save time and to increase productivity in such activities as preparing and updating daily lessons and maintaining records. Besides, ICT use has fostered greater collaboration between teachers with increased sharing of resources and ideas. However, concerning pedagogical practice, teachers continued to use a more traditional approach to teaching, only viewing ICT as a tool to support their didactic approach. Van Braak, Tondeur and Valcke (2004) measured teachers' attitudes toward the effects of computer adoption in the classroom. The findings of the study showed that general computer attitudes -which included items such as computer liking, computer anxiety, and computer confidence- have a direct effect in the attitudes toward the use of computers in education. The study concluded that the attitudes toward computers in education have a considerable influence on teachers' technological innovativeness and teachers' classroom use of computers. They further concluded that years of teaching experience and age appear to have an impact on attitudes toward computers, the level of knowledge about computers, and willingness to use computers. In Kay's (2006) research, he found that, before software introduction, teachers had comparatively higher levels of machine attitude and capability. According to Peralta & Costa (2007), teachers with more professional experience are more enthusiastic about their capacity to use them effectively.

Jones (2004) stated that the competence of teachers relates directly to trust. Teachers' confidence also relates to their perceptions of their ability to use computers in the classroom, and it can, therefore, be said that teachers with a high confidence level in using ICT directly in teaching have a positive perception about the integration of ICT in education (Hew and Brush, 2007; Keengwe and Onchwari, 2008). When teachers' attitudes towards the use of digital technologies are positive, they can easily provide useful insight into ICT adoption and implementation of teaching and learning processes. Demirci (2009) conducted a study on the attitudes

of teachers regarding the use of geographic information systems (GIS) in Turkey. The study employed a questionnaire to collect data from 79 teachers in 55 independent high schools, teaching geography. The study found that although obstacles such as hardware and software shortages existed, students had a significant determinant of positive attitudes towards GIS for effective incorporation of GIS into geography lessons.

Several researchers have argued that teacher beliefs about teaching and how students acquire knowledge play a critical role in determining not only the degree to which technology is used in the classroom but how technology is used to support teaching and learning. Teachers often view technology integration as an additional imposition on their already demanding schedule when they simply want to get on with the business of teaching. In addition to the fact that they do not believe that they have the technical competence to use technology in the classroom effectively, they fail to see its utility or relevance for their subject.

Research has shown that teacher attitudes to technology affect their perception of technology utilisation and its inclusion in teaching. (Huang & Liaw, 2005). A significant number of participants reported that the use of Acer netbooks by teachers from six European Union countries had a positive effect on their learning, encouraged individualised learning and helped to extend research beyond the school day.

Other research, however, shows that a limited number of teachers do not accept the advantages of ICT. The empirical study showed that a fifth of European teachers thought the use of ICT in teaching did not support their students' learning (Korte & Hüsing, 2007). A survey of UK teachers also discovered that the positivity of teachers over possible ICT contributions was moderated as they were 'very ambivalent and often sceptical' about 'relevant, existing advantages' (Becta, 2008, p.45).

#### POTENTIAL PROBLEMS THAT PREVENT TEACHERS FROM INCORPORATING ICT IN THEIR TEACHING

It can be profoundly time-consuming to incorporate technology into a curriculum, especially when it has to be matched with curriculum, standards and other objectives. Amengor (2011) and Oppong (2009) also found out insufficient time as a challenge. Educators have to spend hours previewing websites, familiarising themselves with hardware and software, and getting acquainted with different programs.

Teachers and media professionals are dependent on technicians to help them navigate the different technologies. Studies at most schools find such skilled support workers are frequently overwhelmed by teacher demands and often unable to effectively respond (Cuban, Kirkpatrick & Peck, 2001). Therefore, technology is broken or operating at a lower level as teachers wait for technical assistance. The time it takes for the instructor to manually study and fix the system is overwhelming as well, which acts as another obstacle to implementation. Ertmer and Ottenbreit-Leftwich (2010), have identified in adequate teacher collaboration and pedagogical support, as a challenge to technology adoption.

Even with the right tools, teachers often face insufficient technical skills, pedagogy assisted by technology, and



classroom management related to technology. When a teacher considers a new technology daunting, he or she is unlikely to integrate it into the curriculum. Hutchison & Reinking (2011), placed it as a lack of fundamental technical expertise and how to align it with the current knowledge of pedagogical material to promote learning. For example, if teachers have not learned basic skills like saving to a hard drive first, they cannot attempt to do any technology-related activities with their students. In particular, secondary school teachers may be worried that students are potentially more proficient than they are and thus may be unwilling to teach with it. The second is when teachers have not been educated in new technologies, or have no time to learn the features themselves; it may hinder the introduction of technology into the curriculum. The third is obstacles emanating from the institutions. Teachers and students are less likely to use some kind of interactive devices when school authorities are unsupportive about classroom use of technology. Lim (2007), says this is also because school heads control the purse strings and, as such, can fund numerous technical efforts. However, more generally, leaders uninterested in technology may simply concentrate elsewhere. For example, if a head teacher places a strong emphasis on writing skills, integration with technology can and does much suffer. Nuuyoma (2012) argued that school authorities' lack of enthusiasm had hindered the use of digital technologies in classroom instruction. Primarily, according to Ertmer (2005), it depends on the individual teachers themselves and the views they hold on technology to determine whether to include technology in the curriculum. In one report, students expressed concern that their teachers sometimes seemed unaware that technology plays a significant role in students' lives outside of school.

## VII. METHODOLOGY

The research design adopted was the descriptive survey, with a population which encompassed all teachers in the senior high schools in the Amansie West District in the Ashanti region of Ghana. A census approach was adopted in the study. Questionnaires were used to gather data from the teachers. The data obtained from the questionnaires were edited, coded and analysed using frequencies, percentages, mean and standard deviation using SPSS version 22.0.

### SAMPLE AND SAMPLING TECHNIQUE

The total number of social studies teachers in the selected senior high schools was 28. The entire population 28 was used for the study. This was because the researcher deemed it appropriate to use the whole population since it was within the capacity of the researchers to solicit information from each member of the people. Census, as used in this work, implies the collection of data from a whole population rather than just a sample. One of the advantages of census surveys over the other types of surveys is accuracy. However, it has been criticised for being time-consuming (Creswell, 2003). The distribution of the sample for the study is shown in Table 3.1.

## DATA COLLECTION INSTRUMENT

The researchers used structured questionnaires to gather information from respondents. All of the items were close-ended. The questionnaire was in four parts. Section A of the questionnaire sought information about their biographic data. It consisted of items which included some alternatives to select the ones which applied to their situation. The sections B-D of the questionnaires dealt with issues related to each research question. Section B requested for responses on the proficiency level of teachers on the use of ICT. Section C asked for information on the teacher's perception of the use of ICT in teaching. Section D of the questionnaire required respondents to provide information on the challenges they face in integrating ICT in their teaching. The questionnaire used a 4-point Lirkert Scale weighed as follows:

"Strongly agree" "Agree" "Disagree" "Strongly disagree"

## METHOD OF DATA ANALYSIS

All data collected were first grouped and edited for consistency and clarity of expression. Afterwards, a coding format was adopted and used to make the variable view input in the SPSS version 22. In the meantime, all the questionnaires were coded with the same responses having the same code numbers. All items meant to answer a particular research question was analysed as such using frequencies, percentages, mean and standard deviation.

## VIII. PRESENTATION AND DISCUSSION OF THE MAIN RESULTS

This section dealt with the results and reviews on the data collected from the field. The analysis was based on the research questions that were raised to guide the study. The results in this section were analysed using mean and standard deviations. The decision rule for the interpretation of the results with regards to the mean and standard deviations are represented in tables 1 and 2.

Mean	Scale
3.1-4.0	SA
2.1-3.0	A
1.1-2.0	D
0.1-1.0	SD

Table 1: Decision Rule for Means Value

Standard Deviation Values	Interpretation
1 or greater than 1	Responses differ much from each other.
Less than 1	Responses did not differ much from each other.

Table 2: Decision Rule for Standard Deviation Values

**RESEARCH QUESTION 1:** What is the proficiency level of teachers in the use of ICT in teaching social studies in the selected senior high schools in the Amansie West District?

Research question one sought to solicit data on the proficiency level of teachers in the use of ICT in teaching.

Items 4 to 10 on the questionnaire were then posed to address research question one. The findings are presented in Table 3.

Statement	N	Mean	Std. Deviation
I have been using ICT facilities in my teaching.	28	2.75	.928
I received ICT training before joining the teaching profession.	28	3.07	.766
I have received in-service training in ICT education.	28	2.86	.705
I am very good at using Microsoft Word for word-processing and instruction.	28	3.14	.705
I am very good at using Microsoft PowerPoint for presentation in class.	28	2.96	.838
I am very good at using the Internet/email for research and instruction.	28	3.25	.701
I am good at using Microsoft Excel/Access for instruction and assessment.	28	2.82	.905
Total/Mean of means	28	3.00	.793

Source: Field Data, 2020.

Table 3: Proficiency Level of teachers in the use of ICT in teaching

Results from Table 4 indicated that most of the teachers ( $M=3.07$ ,  $SD=.766$ ) strongly agreed that they had received ICT training before joining the teaching profession. The standard deviation of .766 meant that the responses of the teachers were homogeneous; that is, they did not differ from each other. Similarly, most of the teachers ( $M=3.25$ ,  $SD=.701$ ) strongly agreed that they are very good at using Internet/email for research and instruction. The standard deviation of .701 meant that the responses of the teachers did not differ from each other. Most of the teachers ( $M=2.96$ ,  $SD=.838$ ) again agreed that they are very good at using Microsoft PowerPoint for presentation in class. The standard deviation of .838 meant that the responses of the teachers did not differ from each other. The mean of means of 3.0 meant that the teachers are very proficient in the use of ICT in teaching. And the mean deviation of .793 also suggest that the teachers' response did not differ from each other.

From the discussion above, it can be seen that majority of the teachers were skilled in the use of ICT in teaching, as most of them agreed that they were and used ICT in teaching social studies. This confirmed the findings of the study that was conducted by Amenyedzi, Lartey and Dzomeku (2011) on the use of computers and the internet as a supplementary source of educational materials in Ghana. The study found that a substantially high percentage of respondent teachers (92%) were computer-proficient and were currently using ICT in their teaching.

**RESEARCH QUESTION 2: What are the perceptions of teachers towards the use of ICT in teaching in the selected senior high schools in the Amansie West District?**

Research question two sought to solicit data on the perceptions of teachers towards the use of ICT in teaching. Items 11 to 16 on the questionnaire were then posed to address research question two. The findings are presented in table 4.

Statement	N	Mean	Std. Deviation
Integrating ICT in teaching makes lessons more interesting	28	3.25	.646
Integrating ICT in teaching improves the presentation of materials for lessons	28	3.46	.637
Integrating ICT in teaching motivates students in their learning.	28	3.39	.567
Integrating ICT in teaching gives me more confidence.	28	3.18	.670
Integrating ICT in teaching increases productivity in preparing and updating daily lessons.	28	3.25	.646
ICT/Computer technology is irrelevant to the course I teach.	28	2.00	1.00
Total/Mean of means/Mean of standard deviation	28	3.53	.694

Source: Field Data, 2020.

Table 4: Perception of teachers in the use of ICT in teaching

Results from Table 5 indicated that most of the teachers ( $M=3.46$ ,  $SD=.637$ ) strongly agreed that integrating ICT in teaching improves the presentation of materials for lessons. The standard deviation of .637 meant that the responses of the teachers were homogeneous; that is, they did not differ from each other. Similarly, most of the teachers ( $M=3.25$ ,  $SD=.646$ ) strongly agreed that integrating ICT in teaching increases productivity in preparing and updating daily lessons. The standard deviation of .646 proved that the responses of the teachers did not differ from each other. Most of the teachers ( $M=3.25$ ,  $SD=.646$ ) again agreed that integrating ICT in teaching makes lessons more engaging. The standard deviation of .646 confirmed that the responses of the teachers did not differ from each other. However, the majority of the teachers ( $M=2.00$ ,  $SD=1.00$ ) disagreed that ICT/computer technology is irrelevant to the course they teach. The standard deviation of 1.00 showed that the responses of the teachers did differ from each other. In general, the mean of means of 3.53 meant that the teachers had a high perception of the use of ICT in teaching. The over all standard deviation of .694 give an indication that the response were homogenous.

From the discussion above, it can be seen that majority of the teachers had an ideal impression of the use of ICT in teaching, as most of them agreed that ICT helps to improve their teaching. They also revealed that integrating ICT in teaching makes lessons more engaging. Teachers even disagreed that ICT/Computer technology is irrelevant to the teaching of social studies. This meant that they know the importance of integrating ICT in their teaching and hence is very relevant for the teaching of a subject like social studies. This was in agreement with a study conducted by Gebremedhin & Fenta, (2015) who posited that the teachers had a strong positive perception to use ICT in the teaching-learning process.

**RESEARCH QUESTION 3: What are the problems that prevent teachers from incorporating ICT in the teaching of social studies in the Amansie West District?**

Research question three sought to solicit data on the problems that prevent teachers from incorporating ICT in their teaching. Items 17 to 25 on the questionnaire were then posed to address research question three. The results generated were presented in table 5.

Statement	N	Mean	Std. Deviation
The teaching problems of unreliable telecommunication connectivity/network access.	28	3.18	.612
The present curriculum makes no provision for ICT/ Computer integration for classroom and learning	28	2.79	.995
Teaching time schedules prevent maximum utilisation of ICT/ computer technology for teaching and learning.	28	2.96	.744
There is inadequate technical support.	28	3.00	.609
Total/Mean of means/Mean of standard deviation	28	3.03	.740

Source: Field Data, 2020.

Table 5: Potential problems that prevent teachers from incorporating ICT in their teaching

Results from Table 6 indicated that most of the teachers (M=3.18, SD=.612) agreed that problems of unreliable telecommunication connectivity/network access prevent them from integrating ICT in teaching. The standard deviation of .612 meant that the responses of the teachers were homogeneous; that is, they did not differ from each other. Similarly, most of the teachers (M=2.79, SD=.995) strongly agreed that the teaching time schedules prevent maximum utilisation of ICT/ computer technology for teaching and learning. This was in line with the study by Mumtaz (2000), who argued that insufficient time is a factor preventing the integration of technology in schools. The standard deviation of .995 confirmed that the responses of the teachers did not differ from each other. Most of the teachers (M=3.00, SD=.609) again agreed that there is inadequate technical support. This also supported that findings of Bitner and Bitner (2002) who posited that barriers to ICT could be centred on the support networks that are available to the school. The standard deviation of .609 showed that the responses of the teachers did not differ from each other. The mean of means of 3.03 meant that the teachers agreed that indeed some challenges prevent teachers from incorporating ICT in teaching. The mean standard deviation of .740 meant that there were no difference in the response of the teachers.

From the discussion above it can be seen that problems of unreliable telecommunication connectivity/ network access, teaching time schedules preventing maximum utilisation of ICT/ computer technology for teaching and learning and inadequate technical support are some of the significant problems that prevent teachers from incorporating ICT in their teaching. This corroborate many research that has reported challenges that teachers face in incorporating ICT in their teaching (Hutchison & Reinking, 2011; Amengor, 2011;

Swarts & Wachira, 2010; Oppong 2009; Hew and Brush, 2007).

## IX. FINDINGS

- ✓ The study revealed that majority of the teachers are proficient in the use of ICT in teaching, as most of them agreed that they were and used ICT in teaching social studies.
- ✓ It was again revealed that majority of the teachers had an excellent perception of the use of ICT in teaching, as most of them agreed that ICT helps to improve their teaching.
- ✓ They also revealed that integrating ICT in teaching makes lessons more engaging.
- ✓ Teachers even disagreed that ICT/computer technology is irrelevant to the teaching of social studies. This meant that they know the importance of integrating ICT in their teaching and hence is very relevant for any subject that they teach.
- ✓ Finally, the study revealed that the problems of unreliable telecommunication connectivity/network access, teaching time schedules preventing maximum utilisation of ICT/computer technology for teaching and learning and inadequate technical support are some of the significant problems that prevent teachers from incorporating ICT in their education.

## X. CONCLUSIONS

From the study, it was found that most teachers obtained ICT training before entering the teaching profession. Similarly, most of the teachers again revealed that they are very good at using the Internet/email for research and instruction. Moreover, most of the teachers admitted that they are very good at using Microsoft PowerPoint for presentation in class. It was then established that the teachers engaged in this study were very proficient in the use of ICT in teaching. This confirmed the findings of the study that was conducted by Amenyedzi, Lartey and Dzomeku (2011) who posited that there was a significantly high percentage of respondent teachers (92%) who were computer literate and used ICT in their teaching. It can, therefore, be concluded that indeed the teachers who teach social studies in the senior high schools in the Amansie West District were very proficient in the use of ICT in teaching social studies.

From the study, most of the teachers established that integrating ICT in teaching improves the presentation of materials for lessons. Similarly, most of the teachers indicated that integrating ICT in teaching increases productivity in preparing and updating daily lessons. Moreover, the majority of the teachers again revealed that integrating ICT in teaching makes lessons more engaging. Since this revelation by the teachers who were involved in this study agreed with a study conducted by Gebremedhin & Fenta, (2015) that the teachers had a strong positive perception to use ICT in the teaching-learning process. It can be concluded that teachers who teach social studies in senior high schools in the Amansie West

District had a positive perception of the use of using ICT in teaching.

Finally, from the study, most of the teachers revealed that problems of unreliable telecommunication connectivity/network access prevent them from integrating ICT in teaching. Similarly, most of the teachers showed that the teaching time schedules prevent maximum utilisation of ICT/computer technology for teaching and learning. This was in agreement with the study of Mumtaz (2000) who posited that lack of time is a factor that hinders technology integration in schools. Most of the teachers again revealed that there is inadequate technical support. This also supported that findings of Bitner and Bitner (2002) who posited that barriers to ICT could be focused on the support networks that are available to the school. Since this confirms the findings of Mumtaz (2000) and Bitner and Bitner (2002), it can, therefore, be concluded that the problems of unreliable telecommunication connectivity/network access, teaching time schedules preventing maximum utilisation of ICT/computer technology for teaching and learning and inadequate technical support are some of the significant problems that prevent teachers from incorporating ICT in the teaching of social studies in the Amansie West District.

## XI. RECOMMENDATIONS

Based on the main findings of the study and the conclusions drawn, the following recommendations have been made for policy formulation and professional practice.

- ✓ Ghana Education Service must team up the heads and teachers of the various SHS to make adequate time for tutors to incorporate ICT in their lessons. This will improve the teaching and learning process.
- ✓ By requiring ICT incorporation in teaching and learning, schools must create, retain and sustain their ICT facilities. Education Ministry will make annual budget allocations.
- ✓ To retain, upgrade and extend school ICT facilities, follow-up support should be provided by the Ghana Education Service in the schools. This must include in-service education and ICT training for the teachers in the school and discussion of the implications of the use of ICT in teaching and learning.

## XII. SUGGESTION FOR FURTHER RESEARCH

- ✓ Due to resource constraints, the study could not cover all aspects of ICT utilisation and its effects on effective teaching and learning. Therefore, the study proposes that the scope should be expanded to include all SHS in the country.
- ✓ It is also suggested that the study should be conducted in private schools in other regions in the country.

## REFERENCES

- [1] Aleke, B., Wainwright, D., Ojiako, G.U. and Maguire, S. (2009). ICT adoption in small scale agribusinesses in

Nigeria (Discussion Papers in Management Southampton, UK. University of Southampton.

- [2] Amengor, J. (2011). History teachers' perception of ICT in promoting teaching and learning. University of Cape Coast: Unpublished Dissertation.
- [3] Amenyedzi, F. W. K., Lartey, M. N. & Dzomeku, B. D. (2011). The use of computers and internet as supplementary source of educational material: A case study of the senior high schools in the Tema metropolis in Ghana. *Contemporary Educational Technology*, 2(2), 151-162.
- [4] Kankam, B. (2012). Citizenship education in colleges of education Ghana. An exploratory study of the perception of student teachers and tutors of social studies. Unpublished PhD Thesis. University of Cape Coast.
- [5] Balanskat, A. Blamire, R. Kefalla, S. (2006). The impact of ICT on education: a review of existing studies analyzing the impact of ICT. EUN European Schoolnet. Retrieved December 10, 2019 from [http://insight.eun.org/shared/data/pdf/impact\\_study.pdf](http://insight.eun.org/shared/data/pdf/impact_study.pdf)
- [6] Becta (2008). *Harnessing Technology: Schools Survey 2008*. Retrieved October 20, 2011 from [http://emergingtechnologies.becta.org.uk/upload/loads/page\\_documents/reEarch/ht\\_schools\\_survey08\\_analysis.pdf](http://emergingtechnologies.becta.org.uk/upload/loads/page_documents/reEarch/ht_schools_survey08_analysis.pdf)
- [7] Bitner, N., & Bitner, J. (2002). Integrating technology into the classroom: Eight keys to success. *Journal of Technology and Teacher Education*, 10(1), 95-100.
- [8] Boakye, K. B., & Banini, D. A. (2008). Teacher technology readiness in Ghana. In K. Toure, T. M. S. Tchombe, & T. Karsenti (Eds.), *Technology and Changing Mindsets in Education*. Bamenda, Cameroon: Langaa; Bamako, Mali: ERNWACA/ROCARE.
- [9] Cuban, L., Kirkpatrick, H., & Peck, C. (2001). High access and low use of technologies in high school classrooms: Explaining an apparent paradox. *American Educational Research Journal*, 38, 813-834.
- [10] De Sousa, L. O., Richter, B., & Nel, C. (2017). The effect of multimedia use on the teaching and learning of Social Sciences at tertiary level: a case study. *Yesterday and Today*, 17, 1-22.
- [11] De Sousa, L. O. & Van Eeden, E. S. (2009). Clear-cut to high-tech: History teaching and learning support material (TLSM) drawing on information and communication technology (ICT). *Yesterday & Today*, 4:17-40.
- [12] Demirci, A. (2009). How do teachers approach new technologies: Geography teachers' attitudes towards Geographic Information Systems (GIS). *European Journal of Educational Studies*, 1, (1).
- [13] Ertmer, P. A. and Otterbreit-Leftwich, A. T., 2010. Teacher technology change: How knowledge, confidence, beliefs, and culture intersect. *Journal of Research on Technology in Education*, 42, 255-284.
- [14] Ertmer, P. A. (2005). Teacher pedagogical beliefs: The final frontier in our quest for technology integration. *Educational Technology, Research and Development*, 53(4), 2539.
- [15] Frempong, G. (2010). Ghana ICT Sector Performance Review 2009/2010. In A. Gillwald (Ed.), *Towards*



- evidenced-based ICT policy and regulation. Cape Town: Research ICT Africa.
- [16] Gebremedhin, M. A., & Fenta, A.A. (2015). Assessing teachers' perception on integrating ICT in teaching learning process: The case of Adwa College. *Journal of Education and Practice*, 6(4), 114-124.
- [17] Huang, H.M., & Liaw, S.S. (2005). Exploring users' attitudes and intentions toward the Web as a survey tool. *Computers in Human Behavior*, 21(5), 729-743.
- [18] Hussain, I. & Safdar, M. (2008). Role of information technologies in teaching learning process: perception of the faculty. *Turkish Online Journal of Distance Education*, 9 (2), 46-56.
- [19] Hutchison, A. and Reinking, D. (2011). Teachers' Perceptions of Integrating Information and Communication Technologies into Literacy Instruction: A national Survey in the U.S. *Reading Research Quarterly*, 46 (4), 308-329.
- [20] Jones, H. (2004). A research-based approach on teaching to diversity. *Journal of Instructional Psychology*, 31, 12-19.
- [21] Kay A (2006). *The dynamics of public policy*. Edward Elgar, Cheltenham.
- [22] Keengwe, J., & Onchwari, G. (2008). Computer technology integration and student learning: Barriers and promise. *Journal of Science Education and Technology*, 17(6), 560-565.
- [23] Korte, W. B., & Husing, T. (2007). Benchmarking access and use of ICT in European schools: Final report from Head Teacher and Classroom Teacher Surveys in 27 European countries. Germany: European Commission.
- [24] Kunari, C. (2006). *Methods of teaching educational technology*. New Delhi: Rawat Publication.
- [25] Lai, K.W., Pratt, K. (2004). Information Communication Technology (ICT) in Secondary Schools: The role of the computer coordinator. *British Journal of Educational Technology*, 35, (4), 461-475.
- [26] Lawson, T. 2003. *Reorienting economics*. London: Routledge.
- [27] Lim, C. P. (2007). Effective integration of ICT in Singapore schools: Pedagogical and policy implications, *Education Technology Research Development*, 55, 83-116.
- [28] Makewa L. N. Role, E. & Ngussa, B. (2012). Usefulness of Media Resources in English Instruction: A Case of Adventist Secondary Schools in Tanzania. *Journal Educational Practice*, 3(15), 163-172.
- [29] Mereku, K., & Yidana, A. I. (2011). Pan-African research agenda on the pedagogical integration of ICTs: Ghana report. Accra. [http://www.ernwaca.org/panaf/pdf/phase-1/Ghana-PanAf\\_Report.pdf](http://www.ernwaca.org/panaf/pdf/phase-1/Ghana-PanAf_Report.pdf). Accessed 22 Oct 2017.
- [30] Ministry of Education (2015). Ghana ICT in Education Policy August 2015 Retrieved November 5, 2019 from [https://planipolis.iiep.unesco.org/sites/planipolis/files/ressources/ghana\\_ict\\_in\\_education\\_policy\\_august\\_2015.pdf](https://planipolis.iiep.unesco.org/sites/planipolis/files/ressources/ghana_ict_in_education_policy_august_2015.pdf)
- [31] Mumtaz, S. (2000). Factors affecting teachers' use of information and communications technology: A review of the literature. *Journal of Information Technology for Teacher Education*, 9(3), 319-341.
- [32] Nuuyoma, E. (2012). Challenges faced by English Teachers in integrating information and Communication technology in the teaching of reading and writing in two rural primary schools in the Omusati Region and four urban primary schools in the Khomas Region of Namibia. University of Namibia: Unpublished Master's Thesis.
- [33] Olatokun W. & Kebonye M. (2010), —e-Commerce Technology Adoption by SMEs in Botswana. *International Journal of Emerging Technologies and Society*, 8(1), 42-56.
- [34] Oppong, C. A. (2009). An evaluation of the teaching and learning of history in senior high schools in the Central Region of Ghana. University of Cape Coast, Ghana: Unpublished M. Phil Thesis.
- [35] Peralta, H., Costa, F.A. (2007). Teachers' competence and confidence regarding the use of ICT. *Educational Sciences Journal*, 3, 75-84
- [36] Pryor, John, Ampiah, JG, Kutor, N and Boadu, K (2005). Student councils in Ghana and the formation of the liberal democratic citizen. In: Mutua, K. and Sunal, C. S. (Eds.), *Forefronts of Research* (pp. 65-86). Information Age Publishing.
- [37] Reed, G. M. (2010). Toward ICD-11: Improving the clinical utility of WHO's International Classification of mental disorders. *Professional Psychology: Research and Practice*, 41(6), 457-464.
- [38] Smeets, E. (2005). Does ICT contribute to powerful learning environments in primary education? *Computers & Education*, 44(3), 343-355.
- [39] Shah, I & Khan, M 2015. Impact of multimedia-aided teaching on students' academic achievement and attitude at elementary level. *US-China Education Review A*, 5(5), 349-360.
- [40] Swartz, P., & Wachira, E. M. (2010). Tanzania: ICT in education, situational analysis. Dar Es Salaam: Global e-schools and community Initiative.
- [41] Van Braak, J., Tondeur, J., & Valcke, M. (2004). Explaining different types of computer use among primary school teachers. *European Journal of Psychology of Education*, 19(4), 407-422.
- [42] Zheng, B., Warschauer, M. & Lin C. H., Chang C. Learning in one-one laptop environment: A meta-analysis and research synthesis. *Review of Educational Research*, 86 (4), 1052-1084.