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Social Studies Teachers' ICT Proficiency for Teaching in Schools for the Deaf in Ghana

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ABSTRACT: *The study sought to examine how knowledge and skill in ICT of Social Studies teachers influence their teaching of the subject to students who are deaf in schools in Ghana. The study was hinged on the Social Cognitive Theory and Human Capital Theory and used convergent parallel design with the mixed methods approach. The population for the study comprised all JHS Social Studies teachers and headteachers numbering 42 in the 14 public schools for the deaf in Ghana. Census sampling was used to select all the 28 respondents (teachers) for the quantitative phase while convenience sampling technique was also used to sample 14 participants for the qualitative aspects of the study. Data was gathered through questionnaire for the quantitative data and analysed using descriptive measures (frequencies and percentages, means and standard deviations) while the qualitative data was accessed through semi-structured interviews and textually analyzed. The findings showed that the majority of Social Studies teachers handling deaf students possessed requisite knowledge and skills in ICT and showed interest in teaching the subject, nevertheless, only few of them employed ICT in teaching Social Studies. It is recommended that Social Studies teachers to students who are deaf be provided with computers and taken through regular in-service training to help them meet their special needs and other ICT tools.*
KEYWORDS: ICT, knowledge, skills, proficiency, social studies, deaf,

INTRODUCTION

The demand for efficiency, competence, and precision has made academic institutions adapt and integrate information technology into teaching learning activities and delivery system (Ayebi-

Arthur, Anhwere Barfi, Arkorful, Ocran, Odoi Baffour, 2023). Education experts attribute such a rise in demand to the role Information and Communication Technology (ICT) has played in shaping the global economy and producing rapid societal changes (Corlatean, 2020; Francis, 2019). In the same vein, Karakara and Osabuohien (2019) noted that people and institutions alike have adopted ICT to cope with the continuous changes in the demands of industry and other work environment. Others such as Maphalala and Adigun (2020) and Petersen et al. (2020) attribute such demands to the efficiency and effectiveness ICT plays in transforming the global economy as well as the transitioning processes that usher national institutions into the digital age.

In all aspects of the changing economy, human capital has proven to be the most significant and inevitable, putting pressure on educational institutions to quickly integrate ICT into their academic curricula (Khan et al., 2020). In Ali's (2020) opinion, the aim of such integration is not just to enhance teaching and learning but also to make students digital literates. For similar reasons, experts in education (Kundu, 2020; Tinmaz & Ozturk, 2019) averred that ICT has become a potential measure of students' educational attainment at different levels of the educational ladder. Therefore, though ICT has diversified how students acquire knowledge and skills, Chisango et al. (2020) argued that its usage as a teaching strategy has aided in a deeper understanding of what is taught through developing problem-solving capabilities.

Furthermore, according to Kinyanjui (2019) and Mwapwele et al. (2019), empirical evidence abounds on how ICT has had positive impacts on students and teachers in the teaching learning process. In support of this assertion, Asongu and Tchamyou (2020) aver that, in developed countries, ICT has been adopted to make teaching processes very convenient for all categories of students irrespective of their physical capabilities or challenges.

Echoing these notions, Nyanja and Musonda (2020) noted that teachers in most developed countries are well trained in ICT, and they rely heavily on it as part of their teaching strategies in all subjects. For example, Leduc et al. (2019) noted that across Europe and in most North America, ICT has been used to increase the independence of students with hearing disabilities by enabling them to access visual information. This has helped in their knowledge and skills acquisition by providing alternative methods to learn.

Similarly, Burden, Kearney, and Hall (2019) posit that deaf students with difficulties in holding a pen, using a mouse or keyboard are now able to use a combination of built-in functionality, visual recognition systems, or other ICT assistive solutions to interact with the computer in ways that make learning easy. To this, Strassman, Marashian, and Memon (2019) argued that though deaf students are limited in their biological ability to learn like normal students, their ability to use alternative ICT solutions in the learning process is influenced by social cognitive theory.

Contemporary educational strategies dictate the need for access, equity, and delivery of quality teaching and learning to students with no exception (Mpungose, 2020). Empirical evidence has shown that ICT can result in improved teaching methods by teachers and student outcomes (Demuyakor, 2020; Tewari & Ilesanmi, 2020). Therefore, it is critical to address the need for teeachers' competencies in ICT knowledge and skills (Anlimachie & Avoada, 2020). To this end, Edem et al. (2020) noted that, though the adopting and integrating ICT in Ghanaian schools have been generally slow, the rate of adoption and integration has even been slower in schools for children with disabilities. For example, Alimatu Issaka (2018) observed that acquisition of competent ICT teaching staff as well as the ICT for facilitating the learning of other subjects is a major challenge in most of the schools for deaf in Ghana. The application of ICT into classroom instructional activities has recently gained much attention in the public discourse, particularly among developing countries (Moreira et al.,2019).

On the other hand, unofficial interaction at a workshop with some teachers and headteachers of the school for the deaf across the country revealed a deficit in qualified ICT staff. Others also noted the lack of resources to enable the school to acquire the necessary ICT learning tools. In support of this, Madani (2019) noted that many teachers in schools for students who are deaf in Ghana have limited or outdated knowledge and skills in IC. Echoing this assertion, Hashim et al., (2019) observed that most of the schools for the deaf do not have refresher ICT courses for the teaching staff on how to integrate it into their teaching strategies. Similarly, Odame et al., (2020) found that most of the schools lack a well-resourced ICT laboratory, and for the few that have it, the teachers are not encouraged to use the tool to enhance teaching. Though other researchers have indicated conflicting reports of the extent to which the usage of an ICT tool to enhance learning has improved academic performance, very few researchers have focused on the schools for the deaf in developing countries such as Ghana.

Most studies (Adarkwah, 2020; Buabeng-Andoh, 2019; Boamah 2019, Odame et al., 2020) conducted in Ghana were on ICT integration in relation to use of ICT tools for teaching and learning. None of such studies was conducted on Social Studies teachers' ICT proficiency in schools for the deaf in Ghana. Since Social Studies aims in equipping individuals with relevant knowledge, skills, values and desirable attitudes in guiding individual solve personal and societal problems that threaten man's survival to enable one fits into the society contribute meaningfully to himself and the nation as a whole. For the aims Social Studies to be released, there is a need for teachers' integration of ICT into Social Studies lessons in schools for deaf in Ghana to bridge the digital divide among deaf students to be able to compete with the outside world technologically and improve their economic values at the job place. It is for these reasons that this article sought to examine how knowledge and skills in ICT of Social Studies teachers influence their teaching of the subject to students in schools for deaf in Ghana. Therefore, the following research questions guided this study:

1. What is the knowledge of Social Studies teachers in ICT in teaching students in schools for the deaf in Ghana?
2. How do Social Studies teachers' skill in ICT influence their teaching of students in schools for the deaf in Ghana?

The findings of this study would enrich the ICT knowledge base of Social Studies teachers on the use of theories and methodologies in teaching. Thus, teachers handling Social Studies would have access to more current pedagogical skills to enable them to teach well. The findings will also serve as a reference for future researchers on Social Studies teachers' proficiency in using ICT to teach in schools for the deaf in Ghana.

The Social Cognitive Theory (SCT) and Human Capital Theory (HCT) supported this study. The SCT dwells on vicarious learning and posit that through observation, imitation, and positive reinforcement behaviour could be learned. Contemporary advocates of the SCT, including Schunk and DiBenedetto (2020) and Valizade et al. (2019) argue that individuals who look up to them, end up imitating and re-enacting the media observable behaviours. This is akin to Bandura's (1989) assertion that, people benefit from learning by doing. The concept of SCT clearly underpins the notion that students, who are deaf, have the ability to learn using ICT irrespective of the hearing impediment. This is because though they cannot hear, they can imitate either what the teacher does or what goes on a computer screen. Also, by using positive reinforcement, the teacher will be able to create a process of encouraging or establishing a pattern of behaviour by offering the students reward when the correct behaviour is exhibited. Further, with proper knowledge and skills in ICT, teachers will be able to position themselves as role models to facilitate learning.

Human Capital Theory is measured by what a person is able to do, and this has implications for both human development (education and training) and financial investment Kuzminov et al., (2019). HCT can be viewed from different perspectives. From a traditional point of view, human resource of labour and business function has been viewed as a cost to be minimized whilst in modern times; it is viewed as a source of value. These contrasting perspectives have created a paradigm shift in the concept of human capital. Human capacity has shifted from results-based to activity-based process. This is similar to a basic strategy in business that considers human capital as a means to making the business more profitable through a better-trained workforce (Sellar & Zipin 2019). From the perspective of schools for the deaf, the human capital concept sees the teachers as having potentially great value that need training in ICT and in the modern technological environment. This means that the shift in the current model or pattern of things affects the policy and practice of human capital.The application of ICT into classroom instructional activities has recently gained much attention in public discourse, particularly among developing countries (Moreira et al., 2019). Some contemporary educationists argue that the outcome and results of such integration create significant changes in both teachers and students (Melo et al., 2020; Nath, 2019).

Other research works across Ghana's schools for the deaf have found that most teachers do not use ICT as expected (Arkoful et al., 2020; Rana & Rana, 2020). Additionally, Khalo (2020) noted teachers use ICT depending on subject areas, the highest of which are in the core subject areas. Available evidence shows that these challenges are partly due to the limited ICT knowledge among teachers in special schools. According to Barakabitze and Sanga (2019), introducing computers in Ghana's educational system is a significant investment. However, Agyei (2021) noted that, although the use of computers is not new in the educational system, it has become more regular in many schools during the past decade or so, in both public and private schools, thanks to the national ICT Initiative Project.

The impact of these ICT initiatives on students with special disabilities has shown different conclusions. Some of the studies provide patterns that are similar to those reported in other countries, such as teachers using ICT in their lessons on limited basis (Andyani et al., 2020; Esfijani & Zamani, 2020). On the other hand, other studies have found that the initiative has enabled most special schools to more efficient in using ICT as an integral part of their administrative work. In particular, it has been reported that the schools have been using ICT to plan their teaching activities, and some of their teachers are able to utilise ICT tools in subjects like History, Geography, Social Studies and Mathematics (Ahmed et al., 2019; Corporan et al., 2020). To offset these conflicting results, many contemporary studies advocate that the provision of computers to schools is not enough to ensure its optimal use and benefit to the students without making it mandatory for teachers to upgrade their skills and knowledge in ICT (Agyei, 2021; Tabach & Trgalová, 2019).

ICT education is an essential part of education programs for special students as it is for general students (Graham et al., 2020). To develop a curriculum for enhancing ICT competencies of special students, Obaydullah and Rahim (2019) noted that management of schools must be able to identify and define ICT-based core competencies of their teaching staff as the initial stage. Furthermore, teachers' skills and competencies in ICT are significant for education (Ameen et al., 2019). For these reasons, Al-dheleai, Baki and Al-rahmi (2019) pointed out that it is very important for teachers to integrate ICTs in general education and teacher education. Similarly, many researchers such as Edem and Atiglah (2020) have reported several benefits of teachers' skills in ICT. Furthermore, Adarkwah (2020) noted that, all over the world, teaching is a profession with several responsibilities, especially because of the rapid expansion of knowledge, much of which is accessible to students in print and over the Internet.

For similar reasons, authors such as Adarkwah (2020) and Kuyini et al. (2020) concluded that, for students with special needs, teachers' ICT skills must be able to deal with the following:

- Identify a particular skill in relation to ICT resource utilization
- Create awareness regarding motivation for and effects of ICT utilization on students with special needs

- Demonstrate confidence and enthusiasm with the use of technology specially designed for people with disabilities. (Kuyini et al., 2020, p. 5)

According to Medina-Garcia et al., (2021), it is important for teachers to be conversant with ICT skills, method of teaching, and the content before they can successfully integrate ICT in the education of students with disabilities. Mónico et al. (2020) listed four types of competencies as necessary requirements for a successful use of ICT skills. These requirements are technological competencies, pedagogical competencies, didactical competencies, and social competencies.

According to Dee Dee Benett-Gayle et al., (2021), teachers need ICT skills training to create an ICT-enabled teaching and learning environment for disabled students. Pacheco et al. (2020) maintained that teachers must emphasise a particular technological resource to be employed and the ones are best for students with disabilities. With the right ICT skills, Ramsten et al. (2020) argued that teachers would understand appropriate methods to use computer-related technologies in their classrooms. For these reasons, teachers must have ICT skills training so they can successfully integrate ICT in their lessons (Mosonik, 2020). Apart from the strategies involved with introducing ICT skills, Quamar et al., (2020) noted some confusion about the quality of ICT skills that teachers in special schools must acquire. Harb and Sidani (2021) also reported that during teacher training, preservice teachers must be interested in how they would use computers in the classroom with their students. This is even precarious for teachers in special schools; as such, students require specially designed ICT resources.

METHODOLOGY

The study adopted the convergent parallel design of mixed method approach using pragmatist philosophy to interpret multi-dimensional data. The use of mixed method approach was appropriate because it provides shock absorbers to shortcomings and gaps emanating from both quantitative and qualitative research (Benuto et al., 2020), affords a strategy for explaining context-specific instruments and findings on cause-effect relationships (Palermo & Wilson, 2020). Thus, the choice of mixed method approach was appropriate since it provided a complete and a comprehensive understanding of Social Studies teachers' knowledge and skills in using ICT tools to teach students with deaf disability in Ghana.

The population for the study included all JHS Social Studies teachers and head teachers numbering 42 handling public schools for the Deaf in Ghana which stood at 14. Census sampling technique helped in obtaining 28 respondents for the quantitative phase of this study, while convenient sampling technique was used to sample 14 participants in relation to the qualitative data. Structured questionnaire and a semi-structured interview guide assisted in obtaining quantitative and qualitative data respectively. In analysing the demographic data, frequency and simple percentages were used, while the first and second research questions were analysed by means and standard

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deviations. Ethical issues considered in this study were anonymity, confidentiality, and adherence to Covid-19 protocols.

RESULTS AND DISCUSSION

Demographic Data

The questionnaire design involved five demographic characteristics (gender, age, highest academic qualification, years of teaching experience, and specialised teaching). This assisted in having a clear picture of the respondents as shown in Table 1.

Table 1: Demographic Characteristics of Respondents

Variables	Subscale	Frequency	%
Gender	Male	15	53.6
	Female	13	46.4
Age (in years)	20-29	8	28.6
	30-39	13	46.4
	40-49	3	10.7
	50 or above	4	14.3
Academic Qualifications	Postgraduate	6	21.4
	First Degree	12	42.9
	Diploma/Cert A	6	21.4
Teaching Experience (in years)	1-5	12	42.9
	6-10	9	32.1
	11-15	3	10.7
	16+	4	14.3
Specialist Teaching	No	7	25.0
	Yes	21	75.0

Source: Field data, 2021

Data in Table 1 show the demographic characteristics of respondents in schools for Deaf in Ghana. The results showed the majority (53.6%) of the Social Studies teachers across the schools for the deaf had been teaching Social Studies for some time. In addition, most teachers (46.4%) were aged either between 30 and 39 years, while about 14.3% were 50 years or above. The majority of the teachers (57.1%) indicated they were first degree holders; about 21% had a postgraduate certificate, and 7.1% were WASSCE holders. Furthermore, about 43% of the teachers had been teaching Social Studies for about one to five years; similarly, about 11% have been teaching Social Studies between 11 to 15 years, and 14% have taught Social Studies for more than 16 years. About 75% of the teachers are specialized in teaching students with hearing impairment. Again, the results revealed that most teachers were professionally trained in Social Studies with a considerable experience in teaching students with hearing impairment. Evidence of this is seen from the teacher's ages, academic qualification levels, and the number of years they had been

teaching Social Studies. Besides, the majority indicated they had specialized training in teaching students with hearing impairments. However, concerning gender, more male teachers than females handled Social Studies in the schools for deaf. This finding confirms (Clarke et al., 2022).

Level of ICT Knowledge

Research question one sought to examine the knowledge of Social Studies teachers in integrating ICT in teaching students in schools for the deaf in Ghana. Descriptive statistics (means and standard deviation) examined the teachers' knowledge on integration of ICT in instructional activities. The result is shown in Table 2.

Table 2

Teachers' Level of ICT Knowledge

ICT Knowledge of Teachers	Description of knowledge	Mean	SD
Organize tasks	Accomplish set tasks	4.3711	0.61778
Student evaluation	Students' performance	1.5361	0.63018
Class participation	Relevant activities	1.5670	0.72035
Integration	Use media to create appropriate concepts	1.6186	0.6986
Goal setting	Developing goals	3.3814	0.56722
Concept maps	Visual representations	1.5567	0.72124
Technology	Updates on new technology	2.3814	0.56722
Online presentation	Creates presentations	1.6392	0.61552
ICT development	Understands relevant ICT	1.7216	0.16138
Documentation	Creates documents for students	2.5567	0.76334
Student motivation	Motivating students to team up and construct ICT knowledge	1.3608	0.70984
Media integration	Integrating different media	4.5773	0.73364
Current knowledge	Abreast with current ICT	1.6289	0.95780
Assistive technology	Assistive technology skills	1.4433	0.79665

Source: Field data, 2021

Data in Table 2 show teachers' knowledge in organizing ICT task (Mean = 4.372, SD = 0.61778), developing goals (Mean = 3.381, SD = 0.56722), updating their ICT skills (Mean = 2.4814, SD = 0. 5672), and evaluating students' performance (mean = 1.5361, SD = 0.63018). Furthermore, the teachers had knowledge in using ICT to encourage class participation (Mean = 1.5670, SD = 0.72035), integrate different media to create appropriate concepts for students who are deaf (Mean = 1.6186, SD = 0.6986), for information on visual representations such as timelines, tables, venn diagrams, flowcharts for personal development in ICT (Mean = 2.5567, SD = 0.7214). They also had ICT knowledge in preparing documents for teaching Social Studies (Mean = 2.4814, SD = 0.73364).

Some of the teachers noted that they were very good at the current ICT tools available for teaching Social Studies, and they had the knowledge in assistive technology for students with deafness. The participant teachers indicated that they used ICT to organize their Social Studies lessons, evaluate their students' performance, and encourage students' class participation. This corroborates (Technology in Mathematics Teaching, 2019)

In addition to the data presented in Table 2, some specific responses to the interview questions further suggested that many of the participants had challenges with media integration elements in handling of Social Studies adequately. On the same note, some teachers indicated they were unable to organize tasks such as making a list for daily, weekly, and monthly to-do lists of essential duties to accomplish using ICT tools. The following specific responses from the participants support the above views:

> *Social Studies teachers' knowledge in ICT varies significantly from one teacher to another. This is because ICT is not a pre-requisite to teach Social Studies, such as having qualifications in it is only a plus. In this regard, most teachers acquire knowledge on individual preference and assessment of their career paths. Nonetheless, most of the teachers have sufficient ICT knowledge for Social Studies teaching (H1).*
>
> *Most teachers even though having acquired more ICT knowledge had challenges integrating into teaching of Social Studies lessons professionally. However, the challenge is that the schools do not have the tools to enable them to apply their knowledge (H10).*

These findings generally affirm Moreira et al.'s (2019) assertion that fusion of ICT into the educational process has gained much attention in public discourse in recent times, particularly among developing countries. In the same vein, Moreira noted that more schools for students with special needs are adopting and implementing ICT integration in their school curricula. On the contrary, Khalo (2020) argued that the extent of ICT integration varies among teachers in schools for the students with a disability especially in the areas of individual subject, with the highest level found in core subjects.

Level of Skills in Using ICT

The second research question investigated Social Studies teachers' skill in ICT in teaching students in schools for the deaf in Ghana. The skills level of the teachers was assessed by considering the ability of the teachers to use ICT related tools such as computers, USB devices, presentation clickers, visualizers, microphones, projectors, computer-aided devices, social media, internet resources, tablets devices. These tools are critical in integration of ICT in Social studies classrooms. The data in Table 3 depict the results.

The teachers' level of skills in using ICT were based on the interpretation of the following mean values: very low level-1.00-1.80 ; low level-1.81-2.60; moderate level-2.61-3.40; high level-3.41-4.20); and very high level- 4.21-5.00. As shown in Table 3, the Social studies teachers had very high level of skills in using microphone (Mean = 4.2887, SD = 0.65091) and social media (Mean = 4.2887, SD = 0.65091). The teachers also had high skill levels in the use of computer-aided devices (Mean = 3.2990, SD = 0.48229) and tablet devices (Mean = 3.2887, SD = 0.49714). However, the teachers indicated they possessed low skill levels in using visualizers (Mean = 1. 6177, SD = 0.61430), projectors (Mean = 1.5258, SD = 0.63861), computers (Mean = 1.4433, SD = 0.49936), USB devices (Mean = 1.4227, SD = 0.60956), interactive videos and tools (Mean = 1.3505, SD = 0.55978), whiteboard (Mean = 1.4124, SD = 0.57287), and presentation clickers (Mean = 1.2268, SD = 0.44500).

Table 3
Use of ICT tools by teachers

ICT Tools	Mean	SD	Interpretation
Computer	1.4433	0.49936	Low level
USB Devices	1.4227	0.60956	Low level
Presentation Clickers	1.2268	0.44500	Low level
Social Media	4.2887	0,49914	Very high level
Interactive Videos & Tools	1.3505	0.55978	Low level
Whiteboard	1.4124	0.57287	Low level
Tablet Device	3.2887	0.49914	High level
Computer-aided Devices	3.2990	0.48229	High level
Visualizer	1.6177	0.61430	Low level
Microphone	4.2887	0.62847	Very high level
Projectors	1.5258	0.68361	Low level

Source: Field data, 2021

Participants gave specific responses to support the quantitative findings. Some of the claims by participants are stated below:

> *Most teachers are motivated by the need to equip students with knowledge in Social Studies to understand their environment and make informed decisions. All have well acknowledged the utilisation of ICT to enhance their teaching; hence, have gone the extra mile to learn and acquire the necessary knowledge to use ICT tools to teach Social Studies (H9).*

> *Social Studies teachers' knowledge in ICT varied significantly from one teacher to another. This is because ICT is not a pre-requisite to teach Social Studies as such having*

qualification in it is only a plus. In this regard, most teachers acquire the knowledge on individual preference and assessment of their career paths. Nonetheless, the majority of the teachers have sufficient ICT knowledge to integrate it in their teaching of Social Studies (H1).

Most teachers though have had the opportunity to integrate ICT into their Social Studies lessons but were constrained by lack of tools to enable them to apply their knowledge (H14).

From the interviews, it is realised that the teachers had no knowledge of available equipment and support for fusion of ICT into their lessons. Thus, teachers claimed they had never seen or used equipment such as projectors, presentation clickers, and computers in their schools. The findings show that four top skills of the teachers in terms of using ICT in instructional activities were the use of microphones, social media, computer-aided devices and tablet devices. The use of microphones in educating students with deafness, for instance, predated the widespread integration of ICT in schools for the deaf

Though microphones may not always be beneficial to some students with hearing impairments, they are relatively inexpensive to acquire, and require little or no training to operate. Therefore, when applicable, teachers can use them in their classrooms without much difficulty. Similarly, social media which are found everywhere can be accessed with the aid of reliable internet connectivity. Examples include Facebook, Instagram, and WhatsApp. It is a concern that teachers handling students with hearing impairment are constrained with low skill level in using visualizers and whiteboards, which are critical resources for teaching, and learning in these schools.

Previous studies (Moriera et al., 2019; Cheng & Deng, 2020) have shown that the absence of software, equipment, and services such as internet and broadband, extensively limited successful integration of ICT into Social Studies lessons. However, the expectation was teachers in Schools for the Deaf should acquire ICT knowledge and skills and integrate them in the teaching of Social Studies. Furthermore, Khalo (2020) asserted that because of variations in levels of ICT integration among teachers with schools for disabilities with emphasis on the subject area, with the highest found generally in core subjects, special school administrators could place less emphasis on the acquisition of teachers' ICT knowledge and skills. These views agree with the claims of Ahmed et al. (2019) and Corporan et al. (2020) that the successful implementation of the initiative by the Government of Ghana to enable majority of special schools integrate ICT in their lessons would depend on the availability of ICT resources. The authors had commended the efficient use of ICT in the schools' administrative work, particularly in the planning phase of teaching.

The finding from this study is also similar to that of Chisango et al. (2020) whose observation is that teachers must endeavour to acquire ICT knowledge as a gateway for effective teaching

strategy to aid a deeper understanding of concepts taught in the classroom through developing problem-solving capabilities. However, the cost involved in acquiring ICT tools could be so prohibitive that teachers on their own would not be able to bear such costs.

CONCLUSION

The conclusion from the findings of this study is that the ability of Social Studies teachers to use assistive technology and other ICT tools to encourage class participation in Schools for the Deaf in Ghana is critical to their knowledge and skills in ICT. Student evaluations, online presentations, and those addressed would ensure that the teachers integrate ICT successfully in their lessons. The use of ICT in teaching and learning by teachers will make teaching and learning very convenient for all categories of students, especially those in Schools for the Deaf.

Recommendations

1. Regular in-service training and other refresher courses on ICT should be organized by the Government of Ghana, the Ghana Education Service, Ministry of Education, Special Education Department (SPED) and NGOs for Social Studies teachers in Schools for the Deaf in Ghana to increase and update their knowledge and skills in using ICT to teach.
2. Deaf students need special attention and aid to help them in their daily activities and their education processes. The use of ICT is very convenient for facilitating the teaching of students with hearing impairment with specialized ICT tools designed to suit the challenges posed by the students' disability. Therefore, Management of Schools for the Deaf in Ghana should intensify their efforts to acquire the required ICT tools to enable their Social Studies teachers teach effectively.

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