

Using Technological Tools to Help Improve the Interest and Knowledge of Basic School Students

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Abstract:- In recent times, some concerns have been expressed about the poor performance of JHS 1 pupils of Bonkrong D/A JHS due to their lack of interest and knowledge in the subject ICT. This concern is very agonizing given the relevance of teaching and learning process. This concern prompted the researcher to embark on the study to make out what's actually happening in the school with regards to using technological tools in pedagogy. The objective of the study is to assess the importance of integrating technology into teaching and learning at Bonkrong D/A JHS in the Sekyere Central District of the Ashanti Region in Ghana which will help improve the interest and knowledge of pupils in learning ICT in the 21st century. The study employed the action research design and the purposive sampling technique. The population of the research consisted of 30 pupils in JHS 1. The instrument used to identify school-related causes of lack of interest and poor performance of ICT among JHS 1 pupils was questionnaire consisting of eight (8) open ended questions and the collected data was analysed using simple percentage tables.

Key Words: JHS-Junior High School, BECE-Basic Education Certificate Examination, Bonkrong

I. INTRODUCTION

Background to the Study

According to Daniels (2002) ICTs has become within a very short time, one of the basic building blocks of modern society. Many countries now regard understanding ICT and mastering the basic skills and concepts of ICT as part of the core of education, alongside reading, writing and numeracy. However, there appears to be a misconception that ICTs generally refers to 'computers and computing related activities'.

Technology can have a reciprocal relationship with teaching. The emergence of new technologies pushes educators to understanding and leveraging these technologies for classroom use; at the same time, the on-the-ground implementation of these technologies in the classroom can (and does) directly impact how these technologies continue to take shape.

The use of ICT in education lends itself to more student-centred learning settings. But with the world moving rapidly into digital media and information, the role of ICT in education is becoming more and more important and this importance will continue to grow and develop in the 21st century.

The field of education has been affected by ICTs, which have undoubtedly affected teaching, learning, and research (Yusuf, 2005). A great deal of research has proven the benefits to the quality of education (Al-Ansari, 2006). ICTs has the potential to innovate, accelerate, enrich, and deepen skills, to motivate and engage students, to help relate school experience to work practices, create economic viability for tomorrow's workers, as well as strengthening teaching and helping schools change (Davis and Tearle, 1999; Lemke and Coughlin, 1998; cited by Yusuf, 2005).

Technology is a part of nearly everything people do. But does it has a place in the classroom? In this study, students in Bonkrong D/A JHS School, which is located in the Sekyere Central district of Ashanti region in Ghana consisting of hundred and fifty pupils, had just received new computers over the past 18 months.

It is observed that pupils of Bonkrong D/A JHS School began to perform quite good in the learning of ICT because of the provision of some technology tools provided by GIFEC(Ghana Investment Fund for Electronic Communication).This shows that the provision and availability of ICT tools can improve student's interest and knowledge in studying ICT.

Statement of the Problem

During ICT lessons, students feel relaxed depicting high loss of interest in the lesson taught. This is because students have studied ICT over the years theoretically. During the researchers stay at Bonkrong D/A JHS, it was observed that the school lacked ICT tools for some years which have led to the lack of knowledge and interest in teaching and learning the subject ICT.

Analysing the poor ICT performance of students from 2011 to date using the previous performance of students in the West African Examination Council's Basic Education Certificate Examination results, it shown that, 58 pupils out of 129 of the total population failed representing 45%. Therefore, the poor performance of students over the years in ICT during the BECE concludes that, the lack of ICT tools has really affected the school's academic performance. Hence, using ICT tools will improve the interest and knowledge of Bonkrong D/A JHS 1 students in learning ICT.

Purpose of the study

The purpose of the study is to assess the importance of integrating technology into teaching and learning at Bonkrong D/A JHS 1 which will help improve the interest and knowledge of pupils in learning ICT in the 21st century. When ICT teachers integrate technology as strategies in their curriculum, students will be more excited about learning, their attitudes will be positive about technology, they will be more engaged in the lesson, and their exams performance will be improved. In order to achieve this broad purpose, the following specific objectives will be considered

1. To build ICT teachers' confidence in integrating technology tools in teaching.
2. To access students interest in learning ICT with technological tools.
3. To identify the benefits students gain in integrating technology in the classroom.

Research Questions

Technology in education is a very broad topic, and many questions could have been asked of teachers and students to gather information for this study. The researcher narrowed down the topic by focusing on how teachers can use technology tools to improve students' interest and knowledge in ICT. As a result, this study considered the following research questions:

1. What anxieties do ICT teachers have about adding technology tools to their pedagogy?
2. How can the interest of students improve when technology tools are used in teaching ICT?
3. What benefits are there to students when technology tools are integrated in teaching ICT?

Significance of the Study

The research is meant to improve student's interest, technical know-how in studying Information and communication Technology after integrating technology tools in their class work. Also students' performance are expected to improve after their exposure to the practical ICT technology tools both in their internal term examination as well as the BECE

.Also, the research is meant to enhance ICT teachers' confidence in teaching, motivate and build teachers technicalities when technological tools are integrated in teaching ICT.

Students are trained in schools to use their skills and the knowledge acquired in classroom and at work to help in the contribution of solving societal problems through the study of practical ICT.

II. LITERATURE REVIEW

Basically, ICT refers to forms of technology that are used to create, store, transmit, share or exchange information. According to (Blurton and Craig, 1999) ICT is defined as the "diverse set of technological tools and resources used to

communicate, and to create, disseminate, store, and manage information". These technologies include computers, the Internet, broadcasting technologies (radio and television), and telephony. There are many types of ICT tools that can be used by teachers and students in order to improve the teaching and learning process. In this regard, ICT tools have been classified into four categories by (C.P. Lim and L.Y. Tay, 2003) as it shown on the table below:

TABLE 1: TYPES OF ICT TOOLS

Type of ICT tools	Description	Examples
Communicative Tools	Systems that facilitate communication between the teacher and their students or among students.	Email, chat, social media teleconferencing
Constructive tools	These tools allow students to produce a certain tangible product for educational purposes	web authoring applications, wiki and office tools which allow students to create their own web pages and share their ideas
Situating tools	Systems that place students in an environment where they can experience both the context and the real life situation	Games, simulation and virtual reality
Informative tools	Applications that provide huge amounts of information in various formats such as text, sound, graphics or video	Multimedia encyclopaedias or different digital resources available on the internet

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Use of ICT

Two main meanings are given to the term "use" in the Robert dictionary of sociology (C.P. Lim and L.Y. Tay, 2003). The first refers to the social practice whose age or frequency renders it normal in a given culture. The second refers to the use of an object, natural or symbolic, for particular purposes. We can deduce that the social uses of a product, an instrument, or an object in order to highlight "the complex cultural meanings of daily life behaviours" (S. Proulx, 2005) In this regard, the notion of "use" serves to emphasize the complex relationship between the following elements: the social behaviour of the user, the purpose of the use and the technological devices.

ICT enhancing teaching and learning process

The field of education has been affected by ICTs, which have undoubtedly affected teaching, learning and research (Yusuf, 2005) .ICTs have the potential to accelerate, enrich, and deepen skills, to motivate and engage students, to help relate school experience to work practices, create economic viability for tomorrow's workers, as well as strengthening teaching and helping schools change (Davis and Tearle, 1999; Lemke and Coughlin, 1998; cited by Yusuf, 2005). In a rapidly changing world, basic education is essential for an

individual be able to access and apply information. Such ability must find include ICTs in the global village.

The integration of information and communication technologies can help revitalize teachers and students. This can help to improve and develop the quality of education by providing curricular support in difficult subject areas. To achieve these objectives, teachers need to be involved in collaborative projects and development of intervention change strategies, which would include teaching partnerships with ICT as a tool.

As a consequence, the use of ICT will not only enhance learning environments but also prepare next generation for future lives and careers (Wheeler, 2001). According to Zhao and Cziko (2001) three conditions are necessary for teachers to introduce ICT into their classrooms: teachers should believe in the effectiveness of technology, teachers should believe that the use of technology will not cause any disturbances, and finally teachers should believe that they have control over technology.

However, research studies show that most teachers do not make use of the potential of ICT to contribute to the quality of learning environments, although they value this potential quite significantly (Smeets, 2005). Harris (2002) conducted case studies in three primary and three secondary schools, which focused on innovative pedagogical practices involving ICT. Harris (2002) concludes that the benefits of ICT will be gained "...when confident teachers are willing to explore new opportunities for changing their classroom practices by using ICT.

ICT enhancing the quality and accessibility of education

ICT increases the flexibility of delivery of education so that learners can access knowledge anytime and from anywhere. It can influence the way students are taught and how they learn as now the processes are learner driven and not by teachers. This in turn would better prepare the learners for lifelong learning as well as to improve the quality of learning. Students are starting to appreciate the capability to undertake education anywhere, anytime and anyplace (S. Amin, 2016).

One of the most vital contributions of ICT in the field of education is- Easy Access to Learning. With the help of ICT, students can now browse through e-books, sample examination papers, previous year papers etc. and can also have an easy access to resource persons, mentors, experts, researchers, professionals, and peers-all over the world. This flexibility has heightened the availability of just-in-time learning and provided learning opportunities for many more learners who previously were constrained by other commitments (Young, 2002).

ICT has the potential to remove the barriers that are causing the problems of low rate of education in any country. It can be used as a tool to overcome the issues of cost, less number of teachers, and poor quality of education as well as to overcome

time and distance barriers (McGorry, 2002). ICT eliminating time barriers in education for learners as well as teacher. It eliminates geographical barriers as learners can log on from any place (Sanyal, 2001; Mooij, 2007; Cross and Adam, 2007; UNESCO, 2002; Bhattacharya and Sharma, 2007).

ICT enhancing learning Environment

ICT presents an entirely new learning environment for students, thus requiring a different skill set to be successful. Critical thinking, research, and evaluation skills are growing in importance as students have increasing volumes of information from a variety of sources to sort through (New Media Consortium, 2007). ICT is changing processes of teaching and learning by adding elements of vitality to learning environments including virtual environments for the purpose. ICT is a potentially powerful tool for offering educational opportunities. It is difficult and maybe even impossible to imagine future learning environments that are not supported, in one way or another, by Information and Communication Technologies (ICT).

When looking at the current widespread diffusion and use of ICT in modern societies, especially by the young the so-called digital generation then it should be clear that ICT will affect the complete learning process today and in the future. In addition, teachers should stimulate pupils to engage in active knowledge construction. This calls for open-ended learning environments instead of learning environments which focus on a mere transmission of facts (Collins, 1996; Hannafin, Hall, Land, & Hill, 1994; Jonassen, Peck, & Wilson, 1999). ICT may contribute to creating powerful learning environments in numerous ways.

ICT provides opportunities to access an abundance of information using multiple information resources and viewing information from multiple perspectives, thus fostering the authenticity of learning environments. ICT may also make complex processes easier to understand through simulations that, again, contribute to authentic learning environments. Thus, ICT may function as a facilitator of active learning and higher-order thinking (Alexander, 1999; Jonassen, 1999).

ICT enhancing learning motivation

ICTs can enhance the quality of education in several ways, by increasing learner motivation and engagement, by facilitating the acquisition of basic skills, and by enhancing teacher training. ICTs are also transformational tools which, when used appropriately, can promote the shift to a learner centered environment. ICTs, especially computers and Internet technologies, enable new ways of teaching and learning rather than simply allow teachers and students to do what they have done before in a better way. ICT has an impact not only on what students should learn, but it also plays a major role on how the students should learn. Along with a shift of curricula from "content-centred" to "competence-based", the mode of curricula delivery has now shifted from

“teacher centred” forms of delivery to “student-centred” forms of delivery.

ICT provides Motivation to Learn. ICTs such as videos, television and multimedia computer software that combine text, sound, and colourful moving images can be used to provide challenging and authentic content that will engage the student in the learning process. Interactive radio likewise makes use of sound effects, songs, dramatizations, comic skits, and other performance conventions to compel the students to listen and become more involved in the lessons being delivered. Some of the parents of the respondents opined that their children were feeling more motivated than before in such type of teaching in the classroom rather than the stereotype 45 minutes teaching (S. Amin, 2016).

ICT-enhanced learning recognizes that there are many different learning pathways and many different articulations of knowledge. ICTs allow learners to explore and discover rather than merely listen and remember. The World Wide Web (WWW) also provides a virtual international gallery for students' work (Loveless, 2003). ICT can engage and inspire students, and this has been cited as a factor influencing ready adaptors of ICT (Long, 2001; Wood, 2004).

ICT enhancing the scholastic performance

Based on the extensive usage of ICTs in education the need appeared to unravel the myth that surrounds the use of information and communication technology (ICT) as an aid to teaching and learning, and the impact it has on students' academic performance. ICTs are said to help expand access to education, strengthen the relevance of education to the increasingly digital workplace, and raise educational quality.

However, the experience of introducing different ICTs in the classroom and other educational settings all over the world over the past several decades suggests that the full realization of the potential educational benefits of ICT. The direct link between ICT use and students' academic performance has been the focus of extensive literature during the last two decades (S. Amin, 2016). ICT helps students in their learning by improving the communication between them and the instructors (Valasidou and Bousiou, 2005).

ICT helps in providing a catalyst for rethinking teaching practice (Flecknoe, 2002; McCormick & Scrimshaw, 2001) developing the kind of graduates and citizens required in an information society (Department of Education, 2001); improving educational outcomes (especially pass rates) and enhancing and improving the quality of teaching and learning (Wagner, 2001; Garrison & Anderson, 2003). ICT can help deepen students' content knowledge, engage them in constructing their own knowledge, and support the development of complex thinking skills (Kozma, 2005; Kulik, 2003; Webb & Cox, 2004). Students using ICTs for learning purposes become immersed in the process of learning and as more and more

students use computers as information sources and cognitive tools (Reeves and Jonassen, 1996), the influence of the technology on supporting how students learn will continue to increase.s

Children of the Technological Tools Revolution

Technological tools, especially personal computers, are often cited by educators and policymakers as magic-workers in literacy programs, providing great access to all students. Blamires (1999) claimed that technological tools could help overcome skill-level barriers to learning. He went on to say computers could make us smarter, if not wiser. Other researchers such as Baker, Gearheat, and Herman (1990) have dedicated pages to the motivational qualities of learning with technological tools. Students are very familiar with how to work computers, which means students are more engaged when using these technology tools.

Motivation and engagement are frequently identified as the major benefits of using technological tools to support literacy learning (Andrews, 2003). A common view is that in using computers, students are so engaged and motivated by a viewing text they hardly realize they are accessing, reading, decoding, and analysing information. Why is it so engaging? As previously mentioned, technological tools are everywhere in society and are part of our everyday lives. Hence, the use of technological tools in teaching and learning experiences directly relates to the real lives of students.

Van Kraayenoord (2002) declared, "Students with learning difficulties in particular will quickly become disengaged if classroom teaching does not connect with their lives, and if it does not engage them as learners with topics and issues that have interest and meaning for them". Reading information on a website advertised in a favourite skating magazine, downloading the latest hits from a radio website, and reading the latest gossip about film stars are just some examples that connect with students' real lives yet require active practice and development of literacy skills.

At the same time, since technological tools, especially personal computers and Internet access, are becoming more and more a part of students' everyday lives, using a computer is often no longer motivational in itself, as Becker (2000) discovered. Since computers are every day and ordinary, her students approach them as simply another tool, like a pen or pencil, and not an extrinsic motivational reward. This point can be true of all the new and innovative technology tools available today. Technology advances daily, and tools that are "new and improved" will always be a factor.

Student Learning with Technology

Computers are being used, in part, to enable teachers to improve the curriculum and enhance student learning. One potential target could be "at-risk" students. Recent findings show that not being challenged and not being given the chance to use complex thinking skills are depriving "at-risk" students of a quality education. Means, Blando, Olson,

Middleton, Morocco, and Remz (1993) suggested that technology in the classroom could provide authentic learning opportunities to "at-risk" students.

Teachers can draw on technology applications to simulate real-world situations and create actual environments for experiments so students can carry out authentic tasks as real workers would, explore new terrains, meet people of different cultures, and use a variety of tools to gather information and solve problems. Most of these "at risk" students will be entering the work field after school, and real world experiences could be helpful in fostering these students' success.

Several studies have suggested any student, including the "at-risk" student, who has technology integrated into the curriculum, could potentially see a positive change in classroom grades, and attendance. Technology brings about changes to the classroom roles and organization, especially as it allows students to become more self-reliant. Students may use peer coaching, and teachers may function more as facilitators rather than teacher (Means, 1997). Students are allowed to work on their own, at their own pace, when working on computer projects.

The Use of Technological Tools to Support Reading Skill Development

Many authors relate their experiences in researching the effectiveness of "talking books" as a specific example of a technological tool that supports reading skill development. When using "talking books," learners do not need to be able to read well in order to access a text. The text of the story is highlighted from left to right while a narrator reads expressively and animations aid understanding.

Many student textbooks are very difficult to read because of long sentences and an extensive vocabulary, so a learning disabled student would not be able to read and understand the content of the book. Rusch, Conley, and McCaughrin (1993) found talking books aided in developing children's skills in decoding print media in a similar way to traditional adult-print child interactions, with the talking book taking the place of the skilled reader. Becker (2000) suggested for children with learning difficulties, talking books stimulate because of sound, animation and the opportunity for children to be in control, a key issue for these authors. Students do not have to stumble over unknown words, which aids in content comprehension.

Writing and Technology Tools

Although research has shown talking books, other computer programs and Information Communication Technology (ICT) texts support learning of reading skills with positive results, both Dorman (1999) and Jaber (1997) suggested this is not enough. They explain a great number of technological tools are available to move students with learning difficulties from being mere consumers of predetermined reading packages to actual producers of texts. Spell and grammar check capabilities included in computer software are helpful tools

for these students. In terms of programming and assessment, students and teachers can focus on literacy tasks and not lack of literacy skills while using these and other technology tools. This is in line with the "writing to learn" model of literacy rather than "learning to write"; however, there are dangers.

Government Support and Standardized Testing

In his education proposal, President George W. Bush (2003) stated, the quality of our public schools directly affects us all as parents, as students, and as citizens. Yet too many children in America are segregated by low expectations, illiteracy, and self-doubt. In a constantly changing world that is demanding increasingly complex skills for its workforce, children are literally being left behind. This Administration believes schools should use technology as a tool to improve academic achievement, and that using the latest technology in the classroom should not be an end unto itself. Although the No Child Left Behind (NCLB) Act of 2002 has forced teachers and administrators to change their curricula to focus on material in the standardized tests or face losing their jobs, President Bush began a process of improving the education system.

According to the Department of Education in Washington D.C. schools across the United States have invested over \$66 billion in hardware, software, professional development. Technology support services, and infrastructure over the past decade. As a result, the legislators and the public are watching for some improvements in the schools. The passage of NCLB brought about an increasing focus on standardized testing results as the measure of student advancement and achievement and of school and teacher quality.

According to Honey (2005), "Therefore, efforts to integrate technology into schools and classroom practices must not only acknowledge but also provide evidence that technology assists in meeting these accountability demands". School systems must prove the investments made in technology are improving student scores on standardized tests.

Barriers to Teachers' Use of Computers

New and improved models of teaching are often considered the best way to teach students; however, they change regularly, just as technology does. Other barriers to using technology in education include lack of teacher time, training, and support; limited access; high costs of equipment; lack of vision or rationale for technology use; and assessment practices that may not reflect what is learned with technology (U.S. Congress Office of Technology Assessment [OTA], 1995). In particular, the lack of teacher training and expertise is a major barrier to using the computer and related equipment.

However, with adequate training, technology tools can be quite effective in the classroom. With computer competence, teachers' anxiety decreases, and their attitudes toward computers improves with hands-on computer literacy courses. Adequate time allows teachers to experiment with new

technologies, to share these experiences with other teachers, to prepare lessons using the technology, and to attend technology courses or meetings (Barron & Goldman, 1994).

Learning how to use new technology includes the time the teacher needs to become competent with the computer as a personal tool and as an instructional tool. Teachers need to develop their skills outside of the regular school day so they can concentrate on instruction and training objectives during the school day. Training could come in many forms, such as in-services, professional development, collaborative learning, and peer coaching. Whatever methods are pursued, teachers need the time to learn at their own speed and with their own learning styles (Brand, 1998).

Technology Assessment

Employers and university professors demand certain skills and modes of thinking appropriate for the challenges of the 21st century, and almost all jobs now require some basic understanding of computer hardware and software, especially word processing, spreadsheets, and email. Schools must change to meet the demands of higher education communities and the job market to prepare students for a successful adult life after they finish high school and to enable them to compete internationally (Bassett, 2005).

Time and flexibility are needed to make changes in school systems. Courage and funding are also integral parts of making quality changes in a school district. Much research has been done on using technology in the classrooms, but few studies have uncovered ways to assess student learning through the use of technology besides the obvious standardized testing. According to Honey (2005), Sivin-Kachala and Bialo (2000) reviewed 311 research studies on the effectiveness of technology on student achievement.

Their findings revealed positive and consistent patterns when students were engaged in technology-rich environments, including significant gains and achievement in all subject areas, increased achievement in preschool through high school for both regular and special needs students, and improved attitudes toward learning and increased self-esteem.

III. METHODOLOGY

Technology is entwined in the social lives of students today. They carry cell phones and play video games during their free time, and use computers to chat with friends. Therefore, when technology tools are added into the classroom, it will stand to reason that these students should be more engaged in the teaching and learning process. Technology tools used in the classroom are valuable because they can motivate students to become involved in the lesson. As a result, it is very important for teachers to understand how technology tools can improve their teaching skills and their students' learning skills and exam scores. Teachers who have an open mind are more likely to add these tools to their curriculum with basic staff development and a little extra time to practice the new skills.

Research Design

Action research was used for this study. The reason for choosing action research is because it is a type of research in which the researcher and a client collaborate in the diagnosis of a problem and in the development of a solution based on the diagnosis.

Population

This study involved both male and female students from Bonkrong D/A JHS 1 School, which is located in the Sekyere Central District of Ashanti region consisting of one hundred and fifty students. The first year are made up of 30 pupils of which 13 are boys and 17 are girls. JHS 1 pupils were considered out of the three levels for the study because they are those who lacked knowledge and depicted high loss of interest in the subject ICT.

Sample and sampling procedure

Purposive sampling is used for this study. In this case, respondents are selected based on the researcher's own judgement. As with all non-probability sampling methods, purposive sampling requires researchers to have prior knowledge about the purpose of the study so that they can properly choose an approach eligible participants. A specific advantage is that purposive sampling is fairly straight forward and all what a researcher must do is to reject the individuals who do not fit a particular profile when creating the sample. However, researchers can use various techniques during purposive sampling depending on the goal of the study. Purposive sampling is the only appropriate method available when there are limited numbers of primary data sources that can contribute to the study. This purposive sampling method was chosen because the population for the study was limited and they all have the same characteristic thus depicting high loss of interest during ICT lessons. Hence the sample size constituted of 30 pupils out of the one hundred and fifty as the number of pupils in Bonkrong D/A JHS 1.

Research Instruments

The instrument used was questionnaire which was designed for this study. The questionnaire developed by the researcher went through a validity check by the head teacher and the ICT teachers in Bonkrong D/A JHS School to ensure it was properly designed and free from errors and ambiguity. The questionnaire became valid after all amendments were made and suggested questions provided by the ICT teachers and the head teacher were included.

The reason for the selection of questionnaire as the instrument for this study is because large amount of information can be gathered within a short possible time regardless of the number of participants involved. Also the results produced by questionnaires are valid and reliable.

Intervention

The researcher grouped the intervention process into pre-questionnaire intervention, intervention stage and the post intervention stage.

Pre questionnaire intervention stage

At the pre questionnaire intervention stage, a questionnaire made up of 10 questions was issued out to respondents to complete in order to obtain the necessary information on the problem (sample questionnaire in appendix "A")

Intervention stage

During the intervention stage, the researcher took the students (sample) through a lesson using the required technology tools such as computer, smart phone, tablet, scanners, printers, digital cameras, microphone, web camera etc. Two weeks was used to implement the intervention process.

Week 1

Identification and familiarization of ICT tools

During the week one, students were taken through the identification of the various technology tools that will be used for the lesson. Students were allowed to familiarise themselves with the tools. Students were taught the names of the various ICT tools and were allowed to interact with various tools to know how they are used. ICT tools such as computer, smart phones, projector, web/digital camera, printer, scanner etc.

Week 2

Using the technology tools in the teaching and learning process

The technology tools were used in presenting information to the students during the week 2 of the intervention process. Students were guided to use the various technology tools to perform various tasks such as typing, scanning of documents, uploading pictures and videos from the digital camera to the computer as well as using the webcam to capture images and insert into documents.

IV. RESULTS AND DISCUSSION

Q1. Distribution of respondents by gender and level of study

Table 2: General information on respondents

Gender	No. of pupils	Percentage
Male	13	43.33%
Female	17	56.67%
Total	30	100%

From the table above, almost 44% of respondents are boys and 56% are girls. As for the level of study, all respondents are first year students in Bonkrong DA JHS School.

Q2. Distribution of respondents by age

Table 3: General information on respondents

Age	No. of pupils	Percentage
13-14	19	66%
15-16	11	37%
Total	30	100%

From table 2, 66% of the respondents are at the age of 13 and 14, this represents the usual age at the first cycle of junior high students, while 37% of them are either 15 or 16 years old, this exceeds the usual age for the preparation of first year in basic school in Ghana

Q3. Do you own any of these devices?

Table 4: Accessibility to ICTs

Ownership	Number of students	Percentage
Desktop computer	4	13.3%
Laptop	2	6.7%
Smartphone	8	26.7%
No, but plan to buy	12	40%
No, but no plan to buy	4	13.3%
Total	30	100%

It appears in table 3 that 26.7% of the students that use ICTs materials have Smartphones, and 13.3% and 6.7% of the respondents have desktops and laptops respectively. In addition, 40% of respondents have plan of buying any of the ICTs materials and only 4 students representing 13.3% have no plan of buying one which brings us to the issue of inequality in terms of computer ownership, even though a significant number of students were subsidized by their parents for the acquisition of computer device, but this was intended only for students from well to do family. However, it has been widely recognised that mobile learning is not just about the use of portable devices but also learning across contexts (Walker, 2006)

Q4. Do you have access to any of these devices at your school?

Table 5: Access to devices at school

School devices	Number of students	Percentage
Desktop computer	30	100%
Laptop	0	0%
Smartphone	0	0%
Total	30	100%

The results show that 100% of the students agreed that their school, Bonkrong D/A JHS owns desktop computers. None of the students affirmed of available laptop nor Smartphone owned by the school. All students agreed that GIFEC had provided them with computers which aim to make "2 is to 1

computer'' available to all the students enrolled in Bonkrong D/A JHS School to ensure accessibility of ICT.

Q5. Which social media platforms do you use?

Table 6: The use of ICTs in the learning process

Communication tools	Number of students	Percentage
Facebook	4	13.3%
WhatsApp	2	6.7%
No social media platform	24	80%
Total	30	100%

The results in table 5 revealed that students use a variety of synchronous and asynchronous communication tools to keep in touch with their peers. The majority of respondents reported of not using any of the social media platforms. Whiles 13% use Facebook in the learning process, less than one third use WhatsApp messenger.

Social media sites Facebook and WhatsApp messenger are the most used communication tools by the majority of students in the learning process, a fact which has been confirmed by other research findings in the field of education that focuses on the uses of social networks in general and Facebook in particular by basic students, these studies show that they use social networks to keep in touch and spend times with friends. In addition, the ANRT's annual report for 2014 states that "participation in social networks, access to instant messaging, on the Internet are still the main activities of Ghanaian Internet users".

Q6. On average, how much time do you spend on social media daily?

Table 7: Frequency of ICTs use

Hours spent on social media platform	Number of students	Percentage
Less than one hour	4	13.3%
1-2 hours	2	6.7%
3-5 hours	0	0%
No daily use	24	80%
Total	30	100%

It turns out in table 6 that 13.3% of the respondents use social media less than one hour a week, while only 2 of the respondents representing 6.6% confirm using social media for hours between 1and 2 hours per week, with an exception of 80% of the respondents who do not use social media, a rate which should not be overlooked.

Level of benefits towards the use of technological tools in learning ICT

Q7.What will be some benefits of using technology tool in learning?

Table 8: Benefits of using technological tools in learning ICT

	Agree	Percentage	Disagree	Percentage
Better result	30	47.6%	0	0%
Improve interest	25	39.7%	5	18.5%
Not actively Involve	8	12.7%	22	81.5%
Total	63	100%	27	100%

The results in table 8 reveal that all of the respondents agreed they will obtain better result in using technological tools in learning ICT,16% of the respondents disagreed of improve interest by using technological tools in learning, while 83% of them agree of improve interest by using technological tools in ICT. On the other hand, almost all of them disagreed of not being actively involved in integrating technological tools in learning ICT and few of the respondents agreed of not actively involved in class where technological tools is integrated in learning ICT.

V. CONCLUSIONS

The results of the study showed that social media could play a vital role in education and help students maximise the use of social networking. Despite the finding that few students have personal access to technology tools and was unsuitable for the setting of less privilege and financially constraint ones, social networks and WhatsApp Messenger are the most widely used tools by students to communicate with their peers for exchanging ideas, asking for information and sharing documents related to their study .

The use of ICT tools will increase flexibility so that learners can access the education regardless of time and geographical barriers. It can also influence the way students are taught and how they learn. It would provide the rich environment and motivation for teaching learning process which seems to have a profound impact on the process of learning in education by offering new possibilities for learners and teachers. These possibilities can have an impact on students 'academic performance and achievement.

The researcher at this point can boldly say that, the use of technological tools helps to improve the knowledge and interest of JHS 1 pupils of Bonkrong D/A in learning ICT.

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