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CHALLENGES STUDENTS FACE FOR NOT BEING ALLOWED TO USE MOBILE PHONES IN SCHOOL. A CASE STUDY IN TAMALE MOTROPOLIS

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DECLARATION

STUDENTS DECLARATION

I, EDEM HENRY DOUGLAS AGBENONU, declare that this Dissertation, with the exception of quotations and references contained in published works which have all been identified and duly acknowledged, is entirely my own original work, and it has not been submitted, either in part or whole, for an-other degree elsewhere.

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SUPERVISOR'S DECLARATION

I hereby declare that the preparation and presentation of this work was supervised in accordance with the guidelines for supervision of Dissertation as laid down by the University of Education, Winneba.

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DEDICATION

This Dissertation is dedicated to my lovely wife Abena Mary Andoh-Edem (Mrs) and children Elikplim Yaw Edem, Eyram Ama Edem, Selorm Kwesi Edem and Kojo Edem for their endless love, support and encouragement.

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LIST OF ABBREVIATIONS

0G	Zero Generation
3G	Third Generation
4G	Fourth generation
AT&T	American Telephone & Telegraph
CRDD	Curriculum Research and Development Division
E-book	An electronic book
GES	Ghana Education Service
ICT	Information and Communication Technology
LAN	Local Area Network
M-learning	Mobile Learning
MP3	Moving Picture Experts Group Layer-3 Audio
PAN	Personal Area Network
SMS	Short Message Service
WAN	Wide Area Network

ABSTRACT

The main objective of the study was to examine the challenges students face for not being allowed to use mobile phone in school with particular reference to Dabokpa Technical Institute in the Tamale Metropolis in the Northern Region of Ghana. The researcher used descriptive research design for the study. The sample size for the study was 185 samples made up of 150 students, 15 teachers, and 10 workshop assistants all from the school and 10 GES personnel from the Regional Directorate, Tamale. Data were collected using a structured questionnaire. This questionnaire was designed for GES personnel, teachers and students of Dabokpa Technical Institute in the Tamale metropolis of the Northern Region of Ghana. The findings of the study revealed that, students found it difficult to communicate with their families and relations. The study also showed that students were unable to receive money from parents, access online library services and download educational materials from the internet because they were banned from using mobile phones. The study indicated that the GES personnel in the sample were all against students being allowed to use mobile phones in school because they believed students would misuse the phones to the detriment of their studies. Based on the findings of the study it is recommended that total ban should not be placed on the use of mobile phones by students of second cycle institutions since there are educational benefits inherent in the use of mobile phones. Additionally, the Ghana Education Service through the Curriculum Research Development Division (CRDD) may redesign the school curriculum to suit the use of mobile phones in both basic and second cycle schools as part of learning tools.

CHAPTER ONE

INTRODUCTION

1.1 Background to the Study

Mobile phones have become a very important part of our daily activities very well that it becomes difficult to detach ourselves from their use. The phone has a major impact on children's knowledge, attitudes, and behavior. Even though most students today have occupied themselves with smartphones devices usage so much that they tend to forget their school related activities, the use of phones could be a learning tool which may improve and increase students‟ performance in school.

Information and Communication Technology (ICT) applications enhance an exchange of information between learner-tutor and learner-learner. This takes place through the use of different ICT tools including computers, radio, television, mobile phones and some other devices. These tools provide suitable platform for the teaching-learning process. Current developments in ICTs have increased the level of interactivity and collaborations among learners and tutors. Advancements in web technology have brought about another opportunity for teaching and learning. Among the ICT tools mostly owned and used among people are the mobile phones. These tools can provide suitable learning platforms as they have a lot of applications tutors and learners may use in their academic activities. Learning through mobile phones is termed as mobile learning (m-learning). Guy (2009) defines mobile learning as electronic learning (e-learning) through mobile computational devices. According to Omode (2014) the discovery of mobile phone has revolutionized the society premised on its multiple functions and uses which could be attributed to some

of the features imbedded in it in terms of portability, inexpensiveness, ease of operation and maintenance. The scholar asserts that ownership of mobile phones has permeated every sector of Nigerian economy including the education sector and remains the most prominent technology within the school system. Mobile phones have led to aid increased access to information across the world through inter connectivity. Twum (2014) shows that the use of mobile phones among university students in Ghana afford them new and stimulating learning opportunities while in the view of Blumenstock & Eagle (2010) mobile phones serve as a means of interaction among people by making it possible for them to create, share, exchange information and ideals in virtual communities and networks. Mobile phones have become very important part of student‟s life in modern day society. But how do these mobile phones affect our students‟ performance academically? A ringing phone is considered the most common disruption in the classroom and may negatively impact on student performance (Thomas, Livingstone & Helsper, 2013).

Teachers also have concerns about students‟ use of mobile phones for cheating and collusion in which students text answers during exams, take pictures of exam papers to share with friends, store answer keys to be consulted in exams, or find answer sources via the internet during exams (Dyson, Dahlstrom & diFillipo, 2013; Keengwe, Pearson & Smart, 2012).

1.2 Statement of the Problem

Most students of Dabokpa Technical Institute in the Tamale metropolis have difficulty in communicating their needs to their parents due to ban placed on mobile phone use in second cycle institutions in order to discourage misuse of the device by students. There seems to be an assumption that better learning will occur as a result of the ban of mobile phones. However, many students already have access to this form of technology at home and are more proficient in using the technology. The ban of mobile phones use in second cycle institutions is a big challenge to students in communicating their needs to parents who are far away from their wards. The use of phones by students in school could make parents worry less about the wellbeing of their wards that are far away from them because parents can easily communicate with their wards. In view of this, there is an observation that many students with mobile phones get distracted and this tends to affect their academic performance. Aside these distractions, mobile phones have serious health implications on users and the question is: Are students aware of the health hazards and other challenges associated with using mobile phones in school and for a long period of time?

1.3 Purpose of the Study

The purpose of study was to identify factors that are responsible for Ghana Education Service (GES) to ban the use of mobile phones by students in school, the challenges students face for not being allowed to use mobile phone in schools and also to determine the benefits of mobile phones use to students in the second cycle institutions.

1.4 Objectives of the Study

The principal objective of this study was to examine the challenges students face for not being allowed to use mobile phone in teaching and learning environment using Dabokpa technical institute in the Tamale Metropolis in the Northern Region of Ghana as a case study. However, specific objectives were to:

1. Identify the factors that are responsible for Ghana Education Service (GES) to ban the use of phones by students in school.
2. Identify the challenges students face for not using mobile phone in schools
3. Determine the benefits of mobile phone use to students.

1.5 Research Questions

For the researcher to effectively carry out the study, the following research questions were formulated.

1. What factors caused the GES to ban the use of phones by students in school?
2. What challenges do students face for not using phones in school?
3. What are the benefits of mobile phones use by students?

1.6 Significance of the Study

The study would provide useful information for the Ministry of Education, school administrators, teachers, students, policy makers and other stakeholders in second cycle institutions in the Tamale Metropolis in the Northern Region and Ghana as a whole. This study would help teachers to identify the challenges that hinder students‟ academic performance with regards to mobile phones not being allowed to be used in second cycle institutions.

1.7 Delimitation

The study was limited to students and teachers of Dabokpa Technical Institute in the Tamale Metropolis. The study focused on students, workshop assistants and teachers in various departments in the institution on students‟ usage of mobile phone in the school environment.

1.8 Limitation

The findings of the study would have been more credible for generalization purposes if the study had covered more schools but time and financial constraints made it impossible. In the light of this, only Tamale Metropolis in the Northern Region of Ghana was selected and used as a case study. One major problem was that some of the students at the initial stage who illegally use phones in school were hesitant to open up for the research to be carried out with the fear that they may end up losing their phones and it took the researcher a lot of time to convince them to understand that it was purely for academic purpose. One other issue was that the researcher is not a health expert and so could not delve deep into health conditions mobile phones have on students.

1.9 Organization of the Study

This project work consists of five chapters, Chapter One deals with the background of the study, the statement of the problem, purpose of the study, research questions, objectives of the study, significance of the study, delimitation, limitation, organization of the study, definition of terms and abbreviations. In Chapter Two, the researcher reviewed related literature while Chapter Three dealt with the research methodology used for the study.

Chapter Three also describes the research design, the population sample and sample procedures, data gathering instrument, data collecting procedures of the study and method of data analyses. Chapter Four describes the research findings and discussion of the findings. Chapter Five presents the summary of the findings, conclusions, recommendations and suggestions for further research.

1.10 Definition of Terms

In aiding to understand the terms used in telecommunication, below are some terms and what they mean

3G - a mobile communications standard that allows mobile phones, computers, and other portable electronic devices to access the Internet wirelessly.

4G is the fourth generation of broadband cellular network technology, succeeding 3G

Cell Phone – refers to a telecommunication‟s device that emits an audible signal, vibrates, displays a message, or otherwise summons or delivers a communication to the possessor

E-book - an electronic version of a printed book which can be read on a computer or a specifically designed handheld device.

Internet is a communication protocol for worldwide network

LAN - is a group of computers and network devices connected together, usually within the same building.

PAN – It is a technology that could enable wearable computer devices to communicate with other nearby computers and exchange digital information using the electrical conductivity of the human body as a data network.

WAN – is a communications network that spans a large geographic area such as across cities, states, or countries

MP3 player - It is a standard technology and format for compressing a sound sequence into a very small file while preserving the original level of sound quality when it is played.

CHAPTER TWO

LITERATURE REVIEW

2.1 Mobile Phones

The mobile phone has been in existence for about a decade before young people really adopted this technology. The reduction in the cost of the handsets, their smaller size and the introduction of the pre-paid phone card in the 1990‟s contributed to the surprisingly rapid adoption rate by young people. A smartphone is a mobile phone that can perform many tasks and computations like a personal computer. It is slowly replacing the old cell-phone, as it is equipped with a powerful operating system (multi-tasking) along with a myriad of useful applications (Apps) and high speed data communication capability. Hence, browsing the Internet or running Internet-based applications is intrinsic. A smartphone is a powerful handheld computer with intrinsic connection mobile networks (Davies 2015; Rouse 2015; Anshari & Alas, 2015).

The mobile phones, particularly the smartphones that have become our inseparable companions today, are relatively new. However, the history of mobile phones goes back to 1908 when a US Patent was issued in Kentucky for a wireless telephone. Mobile phones were invented as early as the 1940s when engineers working at American Telephone & Telegraph (AT&T) developed cells for mobile phone base stations. The very first mobile phones were not really mobile phones at all. They were two-way radios that allowed people like taxi drivers and the emergency services to communicate. The world‟s first mobile phone call was made on April 3, 1973, when Martin Cooper, a senior engineer at Motorola, called a rival telecommunications company and informed them he

was speaking via a mobile phone. The phone Cooper used, if you could call it that, weighed a staggering 1.1kg and measured in at 228.6x127x44.4mm. With this prototype device, you got 30 minutes of talk-time and it took around 10 hours to charge

Figure 2.1: The first mobile phone call made

Source: Wikipedia the Free Encyclopedia, 2018

Instead of relying on base stations with separate cells and the signal being passed from one cell to another, the first mobile phone networks involved one very powerful base station covering a much wider area. According to Ford (2007) while the transmission of speech by radio has a long history, the first devices that were wireless, mobile, and also capable of connecting to the standard telephone network are much more recent.

Researchers throughout the world gave their historical interpretation of the genesis of mobile phone. The mobile information society has revolutionized the way we work, communicate and socialize. Mobile phones, wireless free communication and associated technologies such as WANs, LANs, and PANs, cellular networks, SMS, 3G, Bluetooth, Blackberry and Wi-Fi are seen as the driving force of the advanced society (Gordon & Smith, 2006).

The first handheld cellular mobile phone was introduced by John F. Mitchell and Martin Cooper of Motorola in 1973, using a handset weighing 2 kilograms, Wikipedia, the free encyclopedia (2010). Motorola, on 3 April 1973 were the first company to mass produce the first handheld mobile phone. These early mobile phones are often referred to as 0G mobile phones, or Zero Generation mobile phones. Most phones today rely on 3G or 4G mobile technology. Figure 2 shows evolution of mobile phones to date.

According to Wikipedia, the free encyclopedia (2010) revealed that in the United States, engineers from Bell Labs began work on a system to allow mobile users to place and receive telephone calls from automobiles, leading to the inauguration of mobile service on 17 June 1946 in St. Louis, Missouri. Shortly after, AT&T offered Mobile Telephone Service. In view of Kling and Andrew (2010) a wide range of mostly incompatible mobile telephone services offered limited coverage area and only a few available channels in urban areas. The introduction of cellular technology, which allowed re-use of frequencies many times in small adjacent areas covered by relatively low powered transmitters, made widespread adoption of mobile telephones economically feasible.

Figure 2.2: Evolutions of Mobile Phones

Source: Wikipedia the Free Encyclopedia, 2018

In a study conducted by Gonsalves and Antone (2005) suggests that along with the process of developing a more portable technology, and a better interconnections system, drastic changes have taken place in both the networking of wireless communication and the prevalence of its use, with smartphones becoming common globally and a growing proportion of Internet access.

2.2 Academic Impact of Mobile Phone on Students

The impact of the mobile phone on young people‟s peer groups has been extensive. Adolescence is a time of change and increasing influence of the peer group (Ling & Helmersen, 2000). Thus, communication amongst peer group members is central to the identity of the individual. The impact of the mobile phone on peer relationships has transformed the peer group into a truly networked society (Williams & Williams, 2005).

According to Ling (2004) “mobile phones have become an almost essential part of daily life since their rapid growth in popularity in the late 1990‟s”. Mobile phone has the potential to generate both positive and negative effects, and many studies have looked at the impact of mobile phone on society, particularly on students. Keengwe (2012) posit that mobile phones could be a disruptive tool in schools due to inappropriate use and poor supervision of the use. The investigation of these authors reveals that the use of mobile phones impacts negatively on students‟ academic performance and encourages chaos within the school environment.

Ford & Bachelor (2007) reveal that mobile phones are misused by students by using it to; record violence scene, search uncensored content such as pornography, take photos and post them to websites, listen to music and chart which make students to be glued to their mobile phones at the expense of their academic work. Although students equipped with the latest technology enter the classroom with cell phones, iPods, and computers aimed at enhancing learning; Soyemi, Oloruntoba & Okafor (2015) reveal negative effect of mobile phone on Polytechnic students in Nigeria premised on the fact that the students are committed to the use of mobile phones for chatting, music and other non-educational purpose.

Geist (2011) reported that many instructors considered mobile devices as a distraction during lectures, as students would not pay attention because they were often browsing the Internet or accessing social media. Eagle (2010) further indicated that most of the faculty and students agreed that mobile phones in the classroom were a source of distraction.

Mobile phones, in particular, are considered distracting because of problems with ringing, texting messaging, and/or multitasking (Fang, 2009).

According to Mafenya (2011) most users do not consider the mobile phone‟s potential for education and many teachers are not aware of the educational potential of mobile phones. Kevin (2015) while justifying the need to ban the use of cell phones in schools submits that such a step will enhance academic performance, allow students from poor socio economic background and those on special education to be more committed to their school work coupled with reduction on time spent on screen thereby reducing health hazard associated with too much exposure to the screen and also reduce cyber bullying. Louis-Philippe & Richard (2015) reveal improved students‟ academic performance in schools where the use of cell phone was banned in England with greater positive impact on students from low socio economic background and the low achievers. Business Insider Nordic report on 30th August, 2016 reveals students‟ support for the ban of mobile phone in schools in Sweden. The ban according to the report, will decrease distraction in the students‟ working environment, allow students to engage in more exercise during recess at school, and decrease internet bully and abuse.

Even though Graham (2012) concluded that mobile device use in learning has the possibility to open up new avenues for improving the quality of teaching, learning and education management, an individual child‟s developmental level is a critical factor in determining whether the medium will have positive or negative effects. Not all applications on the phone are bad, but negative effects of exposure to violence, inappropriate sexuality and offensive video games and music video watch on phones steal

time from students. The objectives of this statement are to explore the beneficial and harmful effects of mobile phone use on students‟ academic performance. Nyiri, (2002) notes that knowledge is information in context and since mobile devices enable the delivery of context-specific information they are well placed to enable learning and the construction of knowledge.

Again, mobile phone can be a powerful study tool that can help student learn valuable lessons about racial harmony, cooperation, kindness, simple arithmetic and other generics subjects including specific areas of choice. Additionally, libraries, bookstores, museums and other active recreational settings, and educational videos can certainly serve as powerful prosocial teaching devices. However, students just like any other person, are addicted to mobile phones. They play games, chat and talk to their friends on their mobile phone all the time.

According to Haruna (2016), mobile phones are the most necessary medium of communication for adolescents. Meanwhile this has virtually affected the society's accessibility, security, safety and coordination of business and social activities and has hence become a part of a culture of the whole world. More complicated mobile phones present a better variety of abilities such as video, camera, audio recording, multimedia messaging and internet access (Livingston, 2004). Additionally, these sophisticated mobile phones, also known as a smartphone, offer a greater range of capabilities, such as integrated personal digital assistants (PDA) device that combines Bluetooth, built-in calculator for simple mathematics, mass storage, gaming features, text messaging, MP3 player and networking features into one compacted system (Wood, 2006).

Another bigger negative effect of the internet probably is the use of pornographic material by students. Silver (2012) opines that "access to pornography has never been easier, and this is especially true due to the creation of mobile smartphones that ostensibly allow access to the Internet anywhere on the globe". There are people out there that may try and lure students into pornography addictions, meeting other people, and hooking up with them as girlfriends or boyfriends. This can affect the students" performance greatly. For the students and teenagers, who are at the age of development, insomnia may not only affect their mental health but also their physical growth. They may suffer eye strain after a long time looking at the screen. Olatokun (2008) indicated that most students believed the internet seem to be far better and convenient than their school libraries.

In Ghana, students see the library as a favorable environment for studies, and a source of relevant and realistic information for research. All the same, they prefer using the internet by the use of their phones to the library because of the fact that the latter provides readily information at all times, faster access to information and large amount of information. Kumah and Siraj (2015), also suggests that the internet is sometimes used as a supplementary learning material and has led to an improvement in students" academic performance.

2.3 Effect of Mobile Phone in the Classroom

Although mobile learning has promising future potential, the opportunities for mobile learning do not come without challenges. Mobile phones in the classroom have been perceived as a disruptive technology for teachers (Thomas, Livingstone & Helsper,

2013). A ringing phone is considered the most common disruption in the classroom and may negatively impact on student performance (Thomas, 2013). Furthermore, according to Kelly (2017) smartphones are proving useful educational tools but psychological research highlights the risk of their presence in the classroom. The mobile phone aids students in gathering the information that they need for school or accessing their email or school website. Students benefit from this technology availability as it allows them to create more polished academic products with less effort than before the ready availability of cell phones. Mobiles have the potential to recreate existing fields such as education by the use of mobile learning (Ogunlesi & Busari, 2012).

However, the same cell phones will lead to student distraction and off task behavior. Texting a friend is a tempting diversion that many students select over listening to a lecture or completing a class assignment. If not silenced, cell phones can ring during class, drawing everyone's attention away from the lesson and disrupting the flow of learning. Many teachers worry that this added distraction negatively impacts students' school performance as it stops them from dedicating their full attention to their studies.

Barnwell (2016) observed that, it is a constant struggle to keep students engaged in lessons and off their phones. Even when you know you have created a well-structured and well-paced lesson plan, it seems as if no topic, debate, or activity will ever trump the allure of the phone. The ways in which smartphones have become such an essential part of modern life is staggering, and something to be aware of when teaching in a classroom. Smartphones can be both a great educational tool and a great distraction in the classroom.

It should come as no surprise that almost every student in Ghana owns or has access to a smartphone.

According to Riedel (2013), while useful, many of the features of cell phones can also be used to engage in inappropriate behaviors. Taking inappropriate pictures and then "sexting" them to a boyfriend or girlfriend is a growing problem. These pictures often end up in the wrong hands, which leads to others gaining access to the private photos. Teens often fail to recognize the long-term implications of inappropriate behavior and engage in the behavior without considering the consequences. The consequences for inappropriate behavior are real and long-lasting. Once distributed, sexted photos are almost impossible to contain. The presence of these racy photos can limit the teens options in the future and severely mar their reputations.

2.4 The Youth and Technology

Aoki and Downes (2004) focused on the behavioral and psychological aspects of cell phone usage among college students. They tried to find the reasons behind why a technology is adopted in a particular way. They identified several attitudinal factors based on the exploratory study including, necessity in modern times, cost efficiency when compared to landline phone, safety or security, and dependency. The study also endeavored to look at the motivational and behavioral characteristics of mobile phone usage. The authors tried to combine their results and the result of previous research to find the trends in usage by the youth, "why college students in the US use the cell phone, what they think of the technology, and how they use it". The motivational themes

identified by the study include personal safety, financial incentive, information access, social interaction, parental contacts, time management/coordination, dependency, image, and privacy management.

The results of the focus group interviews indicated five distinct user groups in terms of their attitudes toward their cell phone usage and in terms of the levels of integrating cell phones into their lives. Aoki and Downes (2002) enumerate the groups as the cost-conscious group, safety/security conscious, dependent, sophisticated, and practical users. The cost-conscious users believe that a mobile phone helps them save money. The safety/security conscious users are cognizant of their own security and having a cell phone gives them a feeling of security. The dependent user is a person who is reliant on his/her phone and feels disconnected to the world without one.

Castells, Mireia, Qiu and Sey (2004) extensively looked into the rise of the mobile youth in a cross-cultural perspective. Their stated hypothesis was that "there is a youth culture that finds in mobile communication an adequate form of expression and reinforcement." They indicate that much of the research into this youth culture has focused on Europe. The researchers cite evidence for the emergence of collective identity resulting from peer-grouping based on networked sociability. They examine evidence in the United States where owning a mobile phone for a teenager has become a rite of passage. This compilation brings up a wide variety of unique culture attributes for each of the countries or regions studied.

However, there is little by the way of direct cross-cultural comparison for specific demographic segments. The literature review shows that the usage of mobile phone technology has a significant societal influence. The ubiquitous and always-connected nature of the technology is shaping attitudinal changes regarding public and private space of mobile phone users. The importance of this area and the study of the behavioral characteristics involved are being just realized. However relatively few studies are available which look at this issue from a cross-cultural perspective, especially the youth segment of the mobile phone user market.

2.5 Management of the Phones in School

The „digital natives" generation was brought up with this mobile phone technology, and their teachers either struggle to keep up or just give up in the race to understand and use the latest technology. Many often the „digital natives" concept is offered as an explanation or excuse for the disappointment expressed by education administrators when the latest technological innovations fail to fulfill its promise in the classroom.

However, as Kevin (2008), asserted „young people"s relationship with technology is much more complex that the digital native characterization suggests". Therefore, it may be more productive to consider how educators can take steps to meet the challenge of these new technologies within their educational context. Teachers who were keen to develop and sustain meaningful connections with their students felt motivated to acquire the necessary technological skills. They argued that professional development programs need to focus not only on the technology, skills and knowledge required to implement m-

learning strategies, but also on the skills and knowledge needed to support a blended learning environment that makes appropriate and targeted use of technologies that support the overall learning goals.

Classroom management is a challenging skill which teachers strive consistently to improve on a regular basis. Often, people believe that managing a classroom that has employed technology requires a whole new approach and skill, classroom management is an organic and individual process. Smartphone use will remain an ongoing issue for teachers and schools, particularly in terms of content and what is considered suitable, and also how it should be managed. Teachers also have concerns about students‟ use of mobile phones for cheating and collusion in which students text answers during exams, take pictures of exam papers to share with friends, store answer keys to be consulted in exams, or find answer sources via the internet during exams (Dyson, Dahlstrom & diFillipo, 2013; Keengwe, Pearson & Smart, 2012). Students also use their mobiles for inappropriate activities (Thomas, Livingstone & Helsper, 2013). The age of students who own a cell phone has progressively been trending upward. It has become increasingly common for students as young as twelve to possess a cell phone in school. This generation of students is digital natives and thus experts when it comes to technology. Most of them can text with their eyes closed. They are often far more adept than most adults at using their cell phones for many purposes.

According to Traxler (2010), „„mobile devices will soon support every pedagogic option including the didactic and the discursive, the individual learning and the social“". A cell phone can be a powerful educational tool. Campbell (2005) carried out a research study

looked at how pervasive the utilization of short message service (SMS) texting is among polytechnic students; it‟s expected effects on students‟ writing abilities; and what lecturers and students themselves believe about the phenomenon. Chen (2008) conducted a study that the majority of youth is found very high user of texting and reduced user of voice calls. The major inspiration of high and awkward use among young people is very low cost prepaid packages given by the telecom operators in Pakistan. Thornton (2005) conducted study, the poll revealed that Japanese university students use cell phones habitually for sending and receiving e-mail whereas sometimes in their classes. They less often access the World Wide Web from their cell phone but when they do it sometimes in to their university studies. However they think that they are obtaining data about given topic by the teacher in the class.

According to Chen (2006) with the dramatic increase in mobile phone usage in recent years, reports of mobile phone addiction have come in public use. Smartphones have the ability to provide students with so much information in an instant that teachers cannot deny that they can be powerful tools that enhance learning in the classroom. He believes that as long as each student has access to a cell phone, and the parameters around their use are clearly defined, the classroom rewards outweigh the risks of a more open policy. Every student deserves an opportunity to learn without distraction. Mobile phones can have a negative impact on learning through and that their removal from the classroom can yield an improvement in student performance, especially for the most vulnerable. Both schools and parents have a role to play in boundary setting, providing guidance with appropriate and inappropriate phone use, and teaching self-regulation and self-control skills.

Some studies documented perceptions of distraction from phone ringing (Campbell, 2006) and from texting or sending instant messages during a class or study session (Besser, 2007; Kennedy & Smith, 2010; Levine, Waite, & Bowman, 2007). These studies employed survey responses to evaluate effects. The typical measurement scales for such reports are quantitatively weak. For example, Besser (2007) and Kennedy and Smith (2010) measured student perception of the effects of cell phone use on class performance using statements with which respondents either agreed or dis- agreed. Besser's statement was about texting drawing attention away from class, and Kennedy and Smith's statement was about these activities helping class performance. These nominal measurements do not provide information about the quantity of expected information loss.

Other researchers (Campbell, 2006; Levin, Waite, & Bowman, 2007) have expanded the number of response options. For example, Campbell (2006) used a 5-point Liker scale ranging from strongly agrees to strongly disagree to evaluate student attitudes about the disruptive effects of ringing phones. Although these scales increase response variability, there is no clear relationship between level of agreement with a statement such as "when a mobile phone rings during class, it is a serious distraction" and any quantity of information loss. The absence of clarity about the expected size of the effect presents additional interpretive problems. Some researchers have found a difference between expressed attitudes about phone risks and actual behaviour.

2.6 Effective Learning and Teaching with the Phones

Education system throughout the world now is in fact, changing. With the proliferation of technology that offers robust opportunities to educational fields, the learning environments are now becoming more innovative, interactive and effective. The role of technology in education is undeniably significant. Research findings over the past decades have provided some evidences as to how the rapid changes in technology have positively affected education. The role of weblogs in creating an excellent computer-mediated communication linkage and the advantage of video conferencing in providing a diverse range of classroom setting for students to observe are some examples of how schools can benefit from the use of technology ((Huffaker, 2005; Pickering & Walsh, 2011). In other words, technology opens the door to learning in ways which are impossible in the traditional classroom setting (Mason, 2000).

However, writing, the most difficult skills (Dixon & Nessel, 1983) can also be taught with cell phones. As in this connection, Prensky (2005, p.1) asserted: “What can you learn from a cell phone? Almost anything!” The present day mobile phones are feature-rich miniature multimedia computers, having features such as higher capacity for connectivity, built in virtual keyboards to enter text easily, touch screen with high resolution user interface and multitudes of downloadable applications (Cochrane & Bateman, 2010). All these features provide an immense opportunity for English language teachers to use them for the enhancement of writing skills.

The use of phones to access information in school through the internet services is of great significance to a developing country like Ghana (Ameyaw & Asante, 2016). Mobile phone with its capacity to compute, download and deliver multimedia content offers exciting new frontiers in pedagogy for teaching writing which is the most neglected and difficult skill. It offers autonomy to students and a new teaching tool and pedagogy immensely helpful for teachers enabling them to enter the digital era of technology for teaching and learning writing skills by relinquishing the conventional pedagogy. In addition, it has some pedagogical implications on the usage of mobile phone as a tool to enhance students‟ writing skills.

In education, mobile phones have led to the evolution of new paradigm known as mobile learning (Muyinda, 2007). The rapid growth of access to mobile phones around the world and in Africa and Middle East regions in particular have a potential of improving teaching, learning and institutional efficiencies to enable national education system transformation (UNESCO, 2012). According to (Huang, 2010), mobile learning applications can facilitate students not only learning contents conveniently but also interacting with others collaboratively anytime and anywhere. Hence, the development of m- learning as a new strategy for education has implications for the way students and tutors in educational institutions interact. Ferry, (2009) describes that modern mobile phones can be used to help students to access web based contents, remix it, share it, collaborate with others and create media rich deliverable for the classroom teachers as well as global audience.

According to Cui & Wang (2008), universities in United Kingdom (UK) have made the use of mobile phones to store and retrieve information such as e-books, instructional materials, reviewing students‟ marks thus making teaching and learning practices more effective. Moreover, Liaw (2009) reported that in higher education mobile phones can provide course materials to students including due dates for assignments, and information about time table and room changes. Furthermore, Cui & Wang (2008) noted that in China students can view their teachers‟ web page or access some other online English learning resources via mobile phones and they can also take online tests.

Mobile Learning is a powerful method for engaging learners on their own terms and enhances their broader learning experience because of its mobility quality and supporting platform. Users of Mobile Learning should be aware of mobile devices' benefits and specific limitations when delivering mobile learning quality, (Behera, 2013:65). The evolution of E-learning, as a new form of distance learning whose terminology is close to those of traditional learning, has encouraged the varied applications of Mobile Learning. Nevertheless, Mobile Learning is a characterized technology and has its own terminology that adopts terms like spontaneous, intimate, situated, connected, informal, and lightweight, while E- learning uses different terms such as multimedia, interactive, hyperlinked, and media-rich environment, (Korucu & Alkan, 2011).

2.7 Impact of Mobile Phone on the Youth

According to Ling (2001) students are susceptible to trends, fashions and styles, which make them more willing to adopt new technology such as, cell phones. Adolescence is a time of change and increasing influence of the peer group (Ling & Helmersen, 2000) and

thus communication amongst peer group members is central to the identity of the individual. The impact of the mobile phone on peer relationships has transformed the peer group into a truly networked society (Williams & Williams, 2005).

This ability to communicate has been extended further by the use of the mobile phone which not only enables coordination free from the constraints of physical proximity, but also of spatial immobility; that is, the need to stay at specific places (Geser, 2004). The ability of the mobile phone to directly contact a person allows young people even more flexibility and spontaneity in their lives. Young people are able to arrange or rearrange social functions extremely quickly which leads to a "more fluid culture of information social interaction" (Geser, 2004). However, with all things, this does have a downside, for example, where the mobile phone is used to enable hundreds of young people to gatecrash parties (Weston, Atkinson, & Giles, 2005). The most important impact the mobile phone has had, is to connect young people and their peer group. Even the functional use of the mobile phone is intertwined with the relational use; that is, it serves to link peers more closely to one another even more than the fixed phone, as it is done without adult interference.

However, along with these positive impacts, there are negative aspects to young people‟s mobile phone use. These include hiding behind the technology from emotionally distressing events, such as ending relationships, ostracism of those without mobile phones and cyber bullying. Some sociologists argue that as many young people choose to text rather than to talk about awkward or emotionally difficult situations that this will impact on their capacity to interact with each other (Srivastava, 2005).

In relation to the ostracism of young people who do not have a mobile phone, there appears to be contradictions in the research. In the United Kingdom, researchers have noted that non-mobile phone owners are particularly vulnerable to social exclusion (Charlton, Panting, & Hannan, 2002). An Australian study reported that nearly half of adolescents who did not own a mobile phone reported feeling left out of social interactions, and a third felt pressured sometimes by their friends to get one (Matthews, 2004). However, the majority (91%) of adolescents who owned mobile phones reported they respected young people who decide that they do not need one. Perhaps this suggests that adolescents are not ostracizing non-mobile phone owners by deliberating excluding them but perhaps do leave them out because they cannot be contacted easily. It is also possible however, that respondents answered this question in a socially desirable manner.

Another negative aspect of young people‟s mobile phone use is to bully others. Cyber bullying, as coined by Canadian Bill Belsey (www.cyberbullying.ca) or bullying using technology, is a phenomena which children and adolescents seem to be increasingly using to harm others (National Children‟s Home Study, 2002; Ybarra & Mitchell, 2004). One of the few studies that have investigated these phenomena found that most of the victims of cyber bullying were bullied by texting (Campbell & Gardner, 2005). The consequences of face-to-face bullying include increased levels of depression, anxiety, psychosomatic symptoms and even suicide (Davies, 2015).

2.7.1 Impact of the Mobile Phone on the School

The school and the family are the traditional agents of socialization. However, because of the expansion of the educational system due to the need for highly skilled workers, the school system has taken on an increasingly larger role in socialization (Ling & Helmersen, 2000). The impact of the mobile phone on the institution of the school has surprisingly attracted little research attention. This is surprising given the often conflicting priorities of young people, parents and teachers in relation to the device, with teachers concerned about discipline issues in the classroom and parents concerned about being able to contact their children at any time (Srivastava, 2005).

The majority of researchers have found that the mobile phone leads to problematic use in schools. As Ling (2000a) states, the mobile phone is "at cross purpose with the mission of the school" (p.15). Whilst in school grounds students take on their prescribed student roles, free from contact with the outside world. The mobile phone however, allows the blending of roles and interrupts students whilst in their student role. Fixed telephones in schools allowed minimal disruption but with their parents" eagerness to maintain contact, the mobile phone is becoming part of the classroom.

Thus, the mobile phone has the power to undermine the schools" authority and weaken their control over students (Geser, 2004). The main issue for teachers is the disruption to classroom learning that can occur due to the disruptive nature of mobile phone calls and texting. The functionality of SMS lets students send and receive messages unobtrusively (Geser, 2004). Combining this with the ease of hiding the device due to its small size, makes it very difficult for teachers to control. Because of the short time frame in which

an answer is expected to a message (Fox 2001), the excitement of finding out who has called and what the message is, young people are reluctant to turn off their mobile phone during class time. In an Italian survey of 9- and 10-year-olds, 86% of students who owned mobile phones kept them on during lessons (Guardian Unlimited, 2003). The New Zealand survey also found that 66% of students who took a mobile phone to school kept it turned on at school (Netsafe, 2005).

One negative impact of the mobile phone is the anecdotal evidence that students are relying on their parents to solve school problems such as forgetting sports clothes. Students call parents, who ring teachers to persuade them to allow their child to participate without the correct clothing. This supports Plant‟s (2000) argument that young people might be becoming less self-reliant because of the ease of communication with significant others. They are therefore unlikely to be thrown on their own resources or to encounter adventure or surprise as much as previously. Students also use this technology, not only to communicate with others during class time, but also to cheat in exams. Students have always cheated via taking notes into class, or writing notes on hands (Ling, 2000a) however, the use of the mobile phone to cheat is much more sophisticated and it is harder to detect.

With many mobile phones now incorporating a digital camera or video, there is a danger in schools that inappropriate pictures will be taken because of the portability and discrete nature of the camera. Pictures can be taken quickly without the knowledge of the person being photographed. Instances such as the videoing by a mobile phone camera of a girl

beaten by bullies in a school in Victoria (SBS Insight, 2005) and a similar videotaping of children raping another child in England (Sunday Mail, 2005) show some of the negative uses of the mobile phone camera.

These photos or videos can then be posted to a "mob log" on the Internet (Srivastava, 2005). One infamous example is a self-made film of a 15-year-old Quebec boy emulating a Star Wars fight which was posted on the Internet by his classmates. Millions of people downloaded the film, with the media dubbing him the Star Wars Kid (Snider & Borel, 2004). In another incident an overweight boy was photographed by a mobile phone camera in the school change room and the picture posted on the Internet (Mitchell, 2004). Stealing of mobile phones is also an issue which can impact on school staff (Williams & Williams, 2005). Most victims of mobile phone theft are under 18 years of age and the phones are stolen by the same age group as well. This can put additional strain on school administration if the theft occurs at or near school and staff are expected to investigate.

2.8 summary of Literature Review

The literature review cited some prominent authors‟ views on the subject matter. These views sort to point out that the mobile phone has the capability of improving academic performance of students in school. The mobile phones have academic impact on students such that communication amongst peers could transform peer group into truly net worked society. Their views suggest that as good as the mobile phones could be useful in terms of academic performance, could be a serious distractive tool in the school environment and can affect students‟ performance.

These views exposed some negative implications of the mobile phones which cannot be overlooked. Thus, misuse of the mobile phones such as over texting in school, watching pornographic and violent media on these phones could take students attentions away from academic work. This misuse could easily be transferred into the classrooms during lessons and cause major distractions. However, the management of the schools should be confident and trust their capabilities to handle this menace since the mobile phones have a lot of benefits to enhance students‟ performance. These views clearly indicated that the mobile phones could enable students assess online library services and could also promote effective teaching and learning.

CHAPTER THREE

METHODOLOGY

This chapter covers the research methods that were adopted by the researcher in arriving at the findings. It describes the research design, the population, sampling and sample procedures, data gathering instruments and data collection measures were also dealt with in this chapter.

3.1 Research Design

A research design provides a framework for the collection and analysis of data. A choice of research design reflects decisions about the priority been given to set of dimensions of the research process. The researcher used descriptive research design for the study. This refers to a research which specifies the nature of a given phenomenon. It determines and reports the way things are done. Descriptive research thus involves collecting data in order to test hypotheses or answer research questions concerning the current status of the subject of the study. The study adopted a descriptive survey type of research design which only requires the gathering of information from the population sample without manipulating any variable. The choice is also premised on the fact that the study involved investigating a sample of the population and generalizing the result.

3.2 Population of the Study

The population for the study involved various classification of students namely day students, boarders, teachers, Ghana Education Service (GES) personnel and workshop assistants all of Tamale Metropolis in the Northern Region of Ghana. The target population was 1850. The population from GES personnel and Dabokpa Technical School within Tamale Metropolis represent 10 percent of the target population (1850). The choice of a public school was based on the fact that the ban on mobile phones use by students in the region is limited to first and second cycle public institutions.

3.3 Sample Size and Sampling Techniques

The random sampling is a method employed by the researcher of selecting a sample at random from a targeted population in such a way that every possible student that could be selected has a predetermined probability of being selected. In view of this, each member of the population has an equal chance of being selected as subject. This process of sampling is done in a single step with each student selected independently of the other members of the population to eliminate sampling bias.

The random sampling technique was used to select 165 students who have experienced high school education for a minimum of one year. This technique was used to ensure that all students have equal opportunity of being part the sample. In the case of GES personnel, purposive sampling technique was used to select 10 of them. This was to ensure that the right managerial people were selected for the study. The purposive sampling technique was also used to select 15 teachers and 10 workshop assistants to

evaluate the benefits, challenges that are responsible for mobile phones not being allowed in second cycle public institutions.

3.4 Data Collection Instrument

The data collecting instrument that was used to gather information was self-developed questionnaire. A closed ended questionnaire items were designed to collect primary data. This is because it has proven to be consistent and a popular method of data collection. This questionnaire was designed for the GES personnel, teachers and students of Dabokpa Technical Institute in the Tamale metropolis of the Northern Region of Ghana. The questionnaire assisted the researcher to evaluate the challenges students face for not being allowed to use mobile phones in school. Appendix A contained questionnaires for both Day and boarding students, this section dealt with biographic information of students, section B contained questions related to Students‟ familiarity with mobile phone, section C also dealt with factors caused the GES to ban the use of phones by students in schools with phone to students. Section D probed into the challenges do students face for not using phones in school setting. The questionnaire in section E also focused on the benefits of mobile phones use by students and F probed into health implications on the usage of these phones.

3.5. Validity of Instrument

To achieve validity and reliability of the survey, the questionnaires were given to a group of colleagues after being designed to criticize. They were later tested using three colleagues and corrections were also made by the supervisor of the study, who after the

corrections declared them good. The instrument was accordingly revised and administered for the study.

3.6 Data Collection Procedure

The data was collected through the use of a questionnaire hand-delivered to participants. A total number of 185 copies of questionnaire were administered and all questionnaires were retrieved. Students were hesitant initially with the fear of being punished but the researcher assured them that the exercise was for academic purposes and were assured that neither their names nor other identifying information would be included in this research report and every effort was made to maintain confidentiality as cautioned by (Rossman & Rallis, 2012; Trochim, 2006). The questionnaire items were grouped into three categories for teachers, workshop assistants and students and were centered on benefits of mobile phones use, challenges students face for not using phones and factors contributing for the ban of phones in schools by GES. The questionnaires were completed by participants and the researcher went for them in a week‟s time.

In the case of GES personnel, the administration of questionnaires to be responded to was in a form of „Agree, Strongly Agree, Disagree and Strongly Disagree‟. The instrument was made up of ten items designed in line with factors contributing for the ban of mobile phones use in second cycle institutions delivered to them in their offices in the morning and retrieved by close of work the same day.

3.7 Data Analysis

Research requires taking things apart, analyzing them, putting the parts back together, and then synthesizing new understandings (Stake, 2010). The data collected from questionnaires were first edited to check contradictions and ensure consistency. The edited responses were recorded and analyzed statistically. The main statistical techniques employed were frequency distribution and their percentages for all variables to enable basic understanding of the analysis. Further analyses of various charts were also used in analyzing the data for further clarification of certain findings.

CHAPTER FOUR

RESULTS AND DISCUSSION

This chapter discusses findings of the study and their implications. Tables and figures have been used to display the information and descriptive analysis used to discuss the findings.

4.1 Analysis of Respondents Questionnaires

4.1.1 Biographic Information of the Respondents

This is the first aspect of the analyses which deals with the bio data of the respondents. The data involves respondents‟ gender, age and students‟ current year of study which are presented in Table 4.1.

Table 4.1 describes the demographic profiles of all respondents who were capable of using mobile phone technology and understood its operations.

Table 4.1: Demographic profiles of respondents

	Frequency	Percentage (%)
Gender		
Male	108	58.4
Female	77	41.6
Age (year)		
15 to 17	9	4.9
18 to 21	122	66
22 and above	54	29.1
Current year of Study		
Second year	66	44
Third year	84	56

Source: Field survey, 2018

Based on data collected, and with regards to gender distribution, a total of 77 respondents representing 41.6% were made up of females while a total of 108 respondents representing 58.4% were males. This representation depicts how the institution is dominated by more male teachers and students than female teachers and students as shown in Figure 4.1. Respondents participating in the study ranged in age from 15 to 22 years and above. From the biographic characteristic in Table 4.1, 122 respondents representing 66% of the respondents were between the ages 18-21 years, 54 respondents representing 29.1% of the participants were above 22 years old and nine respondents representing 4.9% were between the ages 15-17 years. Ling and Helmersen (2000), argue that mobile phones fulfill a need when a child transitions from elementary to middle school at about age 12-13 years and enters adolescence. These age groups were carefully selected in a way that shows that, respondents are matured and are capable to respond appropriately and give accurate responses to the questionnaire since they are familiar with mobile phones, and also understand how cell phones work.

On current year of study of respondents as portrayed in Table 4.1, a total of 84 respondents from which 49 were males and 35 were female students. This represents 56% of the respondents who were third year students. In addition, a total of 66 respondents representing 44% of the respondents were second year students made up of 39 males and 27 female students.

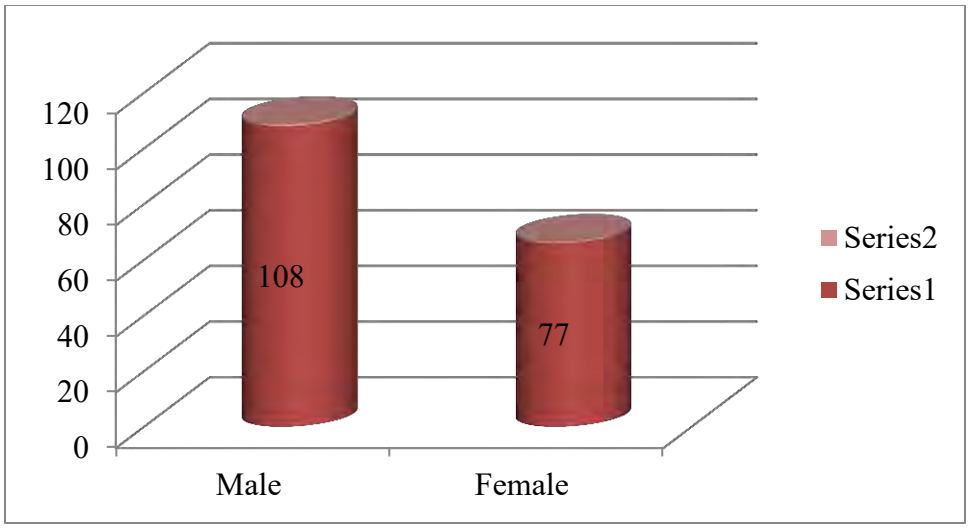

Figure 4.1: Gender of respondents shows the dominant of male students and teachers

Source: Field survey, 2018

4.1.2 Details of Respondents

Table 4.2 shows types of respondents, their gender, and number of questionnaires administered and retrieved with their corresponding percentages.

Table 4.2: Details of Respondents

Type of Respondent	Sex Male	Female	Number of Questionnaire Administered	Number of Questionnaire Retrieved Male female	Percentage of Retrieved Questionnaire
Third year students (boarders)	35	30	65	(31 28) 59	31.9
Third year students (day)	20	8	28	(18 7) 25	13.5
Second year students (boarders)	29	23	52	(25 22)47	25.4
Second year students (day)	14	7	21	(14 5)19	10.3
Workshop assistants	7	5	12	(7 3) 10	5.4
Teachers	12	5	17	(10 5) 15	8.1
GES personnel	3	7	10	(3 7) 10	5.4
Total	**120**	**85**	**205**	**185**	**100**

Source: Field survey, 2018

It can be observed from Table 4.2 that 205 questionnaires were administered to respondents. Out of this number a total of 185 representing 90.2% of the questionnaires were retrieved. The results from Table 4.2 indicate that the male respondents were 88 students, 10 teachers, seven workshop assistants and three GES staff making up 58.4% of the respondents. The female respondents consisted of 66 students, three workshop assistants, seven GES personnel and five teachers representing 41.6% of the respondents.

4.2 Discussion of Finding from Research Questions

Discussion of results of the study is presented according to the research questions outlined in Chapter One. To make the discussion easy to read and understand the Agree and Strongly Agree responses have been consolidated as Agree and Strongly Disagree and Disagree responses consolidated as Disagree responses.

4.2.1 Research Question One

What factors caused the GES to ban the use of phones by students in schools?

Seven questionnaire items were used to seek the views of respondents on the factors that led the GES to ban the use of phones in schools by students. Respondents were to respond to the statement by agreeing to either “Yes or No”. Item-by-item frequencies and percentages are shown in Table 4.3.

Table 4.3: Views of respondents on why GES banned the use of phones by students in schools

S/N	Statement	Cat.	Yes (%)	No (%)	Total (%)
1	Mobile phones can cause distractions in class	S	63(42%)	87(58%)	150(100%)
		T&W	23(92%)	2(8%)	25(100%)
		GES	10(100%)	0(0%)	10(100%)
2	Students may use their mobile phones in texting, conversing and may engage in watching pornographic material	S	37(24.7%)	113(75.3%)	150(100%)
		T&W	17(68%)	8(32%)	25(100%)
		GES	10(100%)	0(0%)	10(100%)
3	The use of phones can affect students" academic performance in school	S	109(72.7%)	41(27.3%)	150(100%)
		T&W	21(84%)	4(16%)	25(100%)
		GES	9(90%)	1(10%)	10(100%)
4	Students may concentrate more often on phones than their books	S	99(66%)	51(34%)	150(100%)
		T&W	19(76%)	6(24%)	25(100%)
		GES	9(90%)	1(10%)	10(100%)
5	Students may play games most of the time on their mobile phone	S	69(46%)	81(54%)	150(100%)
		T&W	17(68%)	8(32%)	25(100%)
		GES	10(100%)	0(0%)	10(100%)
6	Poor students who cannot afford to buy phone and use would feel sad or ridiculed and this can affect their performance in school	S	49(32.7%)	101(67.3%)	150(100%)
		T&W	25(100%)	0(0%)	25(100%)
		GES	8(80%)	2(20%)	10(100%)
7	Student may be fidgeting with their mobile phones in school instead of their books	S	92(61.3%)	58(38.7%)	150(100%)
		T&W	23(92%)	2(8%)	25(100%)
		GES	10(100%)	0(0%)	10(100%)

Key: Cat = category of respondents, S = student respondents, T&W = Teachers and workshop assistant respondents and GES = Ghana Education Service respondents

Source: Field survey, 2018

In Table 4.3, when respondents were asked to express the views regarding the statement, "Mobile phones can cause distraction in school", 87 of the student respondents representing 58% disagreed with the statement. Eight percent of teachers and workshop assistants also disagreed that mobile phones cause distraction in class. This is an indication that most students who have mobile phones in school are aware that these

phones could disturb in class therefore managed to curtail any form of distraction in class. On the contrary, 23 out of 25 teachers and workshop assistants representing 92% and forty-two percent of the student respondents agreed that mobile phones can cause distraction in class. Responses from GES personnel indicated that all the 10 respondents representing 100% agreed that mobile phones cause distractions in class and are major concern for the Ghana Education Service.

According to Fox (2010), texting is a very useful way of undertaking one‟s social obligations to stay in touch without spending time or energy on the encounter. Texting avoids awkward silences and having to make conversation. It enables shy or reserved young people to communicate without embarrassing emotions while encouraging candid or even cheeky text (Plant, 2000). When the students were asked about the statement, **“**students use phones mostly in texting, conversing and may watch pornographic material”, one hundred and thirteen student respondents representing 75.3% and eight teachers and workshop assistants representing 32% disagreed with the statement. On the other hand, thirty-seven students representing 24.7% of student respondents and 17 teachers and workshop assistants representing 68% including 10 GES respondents representing 100%, agreed to the statement. These results indicated that the use of mobile phones in class is considered disruptive and so it is in order for the GES to ban the use of phones in schools.

Similarly, 27.3% of the respondents from the students and 16% from teachers and workshop assistant respondents disagreed with the statement that “The uses of phones affect academic performance in school”. On the contrary, 109 students representing

72.7% of the respondents and 21 teachers and workshop assistants representing 84% in addition to nine out of 10 GES respondents representing 90% responded "Yes" to indicate that the use of phones affect academic performance in school with only one representing 10% disagreed with the statement. In view of this, it would be appropriated that students could keep their distance from the device during classes" periods to avoid unnecessary interference.

In addition, 99 students representing 66% respondents and 19 teachers and workshop assistant respondents representing 76% with 90% of GES respondents admit that students concentrate more often on the mobile phones than books as evidenced in their response to statement five. The result also showed that 69 of the student respondents representing 46% agreed that they play games most of the time on the mobile phone and 49 of the respondents from students representing 32.7% agreed that poor students who cannot afford to buy phone and use would feel sad or ridiculed and this can affect their performance in school. Furthermore, 92 respondents representing 61.3% of the students agreed that they fidget with their mobile phones in school instead of their books.

On the other hand, responses given on playing games in Table 4.3 revealed that, 81 of the student respondents representing 54% think that they do not play games most of the time on the mobile phone and 67.3% of them also did not think poor students who cannot afford to buy phone and use would feel sad or ridiculed and this can affect their performance in school and 38.7% said they do not fidget with mobile phones. This suggests that if students are allowed to use mobile phones in schools they may not lose focus on their studies due to the use of cell phones.

The results also showed that 17 respondents from teachers and workshop assistants representing 68% agreed that students may play games most of the time on their mobile phones. In addition, all the 25 respondents of teachers and workshop assistants representing 100% agreed that poor students who cannot afford to buy phone and use would feel sad or ridiculed and this can affect their performance in school. Furthermore, 23 respondents representing 92% of the teachers and workshop assistants agreed that students may fidget with their mobile phones in school instead of their books. On the contrary, responses given on playing games revealed that, 32% of teachers and workshop assistant respondents think students do not play games most of the time on the mobile phone and none of them disagreed that poor students who cannot afford to buy phone and use would feel sad or ridiculed. In furtherance, 8% of the respondents said students may not fidget with mobile phones in schools.

All the GES respondents agreed with statement five in table 4.3 that students may play games most of the time on their mobile phone and also 80% of them responded that poor students who cannot afford to buy phones and use would feel sad or ridiculed and this can affect their performance in school. Furthermore, Table 4.3 revealed that all the GES respondents responding to statement seven agreed that students may be fidgeting with their mobile phones in school instead of reading their books.

On the contrary, twenty percent of the GES respondents did not agree that poor students who cannot afford to buy phones and use would feel sad or ridiculed and this can affect their performance in school as indicated in statement six of Table 4.3.

4.3 Research Question Two

4.3.1 What challenges do students face for not using phones in school?

Five questionnaire items were used to gather views of students, teachers and workshop assistants on challenges students face for not using mobile phones in schools. Item-by-item frequencies and percentages of responses are shown in Table 4.4.

Table 4.4: Challenges students face for not using mobile phones in school

S/N	Statement	Cat	Strongly Agree	Agree	Strongly Disagree	Disagree	Total (%)
8	It is difficult to communicate to family and relations without a mobile phone.	S	89(59.3%)	56(37.4%)	5(3.3%)	0%	150(100%)
		T&W	21(84%)	3(12%)	1(4%)	0%	25(100%)
9	Students cannot get online for information on subjects being studied	S	49(32.7%)	101(67.3%)	0%	0%	150(100%)
		T&W	4(56%)	11(44%)	0%	0%	25(100%)
10	It is difficult to receive money from parents without a mobile phone	S	27(18%)	93(62%)	25(16.7%)	5(3.3%)	150(100%)
		T&W	20(80%)	1(4%)	4(16%)	0%	25(100%)
11	Difficult to access information and help from parents without a mobile phone	S	121(80.6%)	22(14.7%)	7(4.7%)	0%	150(100%)
		T&W	23(92%)	2(8%)	0%	0%	25(100%)
12	Students cannot do effective research without mobile phones	S	40(26.7%)	90(60%)	20(13.3%)	0%	150(100%)
		T&W	5(20%)	9(36%)	8(32%)	3(12%)	25(100%)

Key: Cat = category of respondents S = Student respondents T&W= Teachers and Workshop Assistants respondents

Source: Field survey, 2018

Table 4.4 demonstrates challenges students face for not using mobile phones in school. One hundred and forty-five students out of 150 students representing 96.7% agreed that it was difficult for students to communicate with their families and relations without mobile phones. Supporting the statement, 24(96%) of the teachers and workshop

assistants also agreed that it was difficult for students to communicate with their families and relations without mobile phones. On the contrary, five students representing 3.3% disagreed with the statement and only one representing 4% of teachers and workshop assistant respondent disagreed with the statement.

Concerning students facing challenges in getting online information on subjects that they are studying, 150(100%) of student respondents agreed that they could not get online information on the subjects that are being studied without the use of phones. Twenty-five teachers and workshop assistants representing 100% agreed that students could not access information on the subjects that were studied without the use of phones with none of the respondents disagreeing with the statement. This finding is worrisome since according to Reid (2010), smart phones like Blackberry and iPhones have built-in cameras for picture and video-recording and capturing features which can assist in note taking during lectures, which would be read afterwards.

Additionally, 120 student respondents representing 80% agreed that it was difficult to receive money from parents without mobile phones and 21(81%) teachers and workshop assistant respondents also agreed with the statement. Contrary to the earlier responses, 30 student respondents representing 20% disagreed that it was difficult to receive money from parents without mobile phones and only four (16%) teachers and workshop assistant respondents also disagreed with the statement.

From Table 4.4, it can be seen that 143 of student respondents representing 95.3% agreed that it was difficult for students to access information and help from parents without the use of mobile phones and only seven (4.7%) student respondents disagreed with the statement. In similar vein, 25(100%) teachers and workshop assistant respondents agreed that it was difficult for students to access information and help from parents without mobile phones.

The study revealed that 14 teachers and workshop assistant representing 56% agreed that students cannot do effective research without the mobile phones with 44% of respondents disagreed with the statement. With regards to the last item in table 4.4 that students would find it difficult to do effective research without mobile phones 130(86.7%) students respondents agreed with the assertion with only 20(13.3%) disagreed with the assertion. This finding runs contrary to the aspirations of Reid (2010) who wished that students could have access to internet applications such as Google search, Google Maps and Google Documents among others to assist them in their studies.

4.4 Research Question Three

What are the benefits of mobile phones use by students?

4.4.1 The Benefits of Mobile Phone Use to Students

Seven questionnaire items were used to seek the views of students, teachers and workshop assistants on the benefits of mobile phones use by students. Item-by-item frequencies and percentages of responses are shown in Table 4.5. To make the discussion easy to read and understand, Strongly Agreed and Agreed have been combined and

discussed as Agree and Strongly Disagreed and Disagreed are also combined and discussed as disagree.

Table 4.5: The Benefits of Mobile Phones Use to Students

S/N	Statement	Cat	Strongly agree	Agree	Strongly disagree	disagree	Total (%)
	Mobile phones make it easy to	S	107(72.3%)	43(28.7%)	0%	0%	150(100%)
13	communicate to family and relations	T&W	19(76%)	2(8%)	4(16%)	0%	25(100%)
	Mobile phone enables	S	123(82%)	27(18 %)	0%	0%	150(100%
14	students to receive money safely from parents	T&W	12(48%)	4(16%)	5(20%)	4(16%)	25(100%)
	Mobile phones enable students	S	53(35.3%)	90(60 %)	4(2.7 %)	3(2 %)	150(100%
15	to browse the internet to help them in their studies	T&W	6(64%)	7(28%)	(8%)	0	25(100%)
	Students can discuss group	S	55(36.7%)	93(62%)	2(1.3%)	0	150(100%)
16	assignment and other school work with classmates through mobile phone	T&W	10(40%)	4(16%)	11(44%)	0	25(100%)
	The alarms on the mobile	S	39(26%)	111(74%.)	0	0	150(100%)
17	phones can guide students during studies	T&W	4(16%)	8(32%)	11(44%)	2(8%)	25(100%)
	Mobile phones enable students	S	81(54%)	63(42%)	6(4%)	0	150(100%)
18	to have access to online library services	T&W	21(84%)	2(8%)	2(8%)	0	25(100%)
	Mobile phones enable students	S	99(66%)	51(44%)	0	0	150(100%)
19	to download educational materials from the internet	T&W	23(92%)	2(8%)	0	0%	25(100%)

Legend / Key

Cat = category of respondents

S = Students respondents

T&W = Teachers and Workshop Assistants respondents

Source: Field survey, 2018

Kolb (2006), acknowledged that providing a child with a mobile phone gives parents and caregivers reassurance that they can communicate quickly with their child before and after school. Kolb noted further that mobile phones can be used as a learning tool for knowledge construction if educators teach students how to use them appropriately. In the

study, item 13 in Table 4.5 confirmed that all the student respondents representing 100% agreed that the mobile phones make it easier to communicate with their families and relations with non-disagreeing with the statement. Most teachers and workshop assistants representing 21 out of 25 teachers and workshop assistants representing 84% agreed with the statement. On the contrary, only four of the teachers and workshop assistants representing 16% of the respondents disagreed that, mobile phones make it easier for students to communicate to parents and relations. The findings suggest that mobile phones use would be helpful to students in communicating with their parents and relations. In addition, parents can monitor their wards in school at any time by the of use mobile phones.

With regard to item 14 in Table 4.5 that mobile phones enable students to receive money safely from parents, 150 student respondents representing 100% agreed with the statement with none disagreeing. Eighteen of the teachers and workshop assistant respondents representing 64% agreed that it was safe to receive money through mobile phones by students from parents. On the other hand, nine out of 25 teachers and workshop assistant respondents representing 36% disagreed with the statement that it was safe for students to receive money through mobile phones.

According to Bruner (1996), learning is an active process in which learners construct new ideas or concepts based on both their current and past knowledge. Kirschner and Selinger (2003), also assert that 21st Century pupils are „light years ahead" of their parents and teachers with respect to the possible use of information and communication technologies (ICT). In responding to the item 15 in Table 4.5 that "Mobile phones enable students to

browse the internet to help them in their studies, 143 student respondents representing 95.3% agreed with the statement. Furthermore, 23 teachers and workshop assistants representing 92% agreed that mobile phones enable students to browse the internet for information to aid them in their studies.

On the contrary, seven out of 150 student respondents representing 4.7% disagreed with the statement and only two out of 25 teachers and workshop assistants representing 8% respondents also disagreed with the statement that, mobile phones enable students to browse the internet for information to support them in their studies. The finding shows that majority of these students need mobile phones to support them in their studies for information. This therefore calls for the inclusion of mobile phones in schools to enhance students‟ performance though few of the students do not use these phones for academic purposes.

Kratcoski (2007), stated that "with the wide spread of mobile technology, learning can occur at any time and in anyplace even if teachers and students are not in the same physical or temporal location". It can be seen in Table 4.5, item 16 that, 148 student respondents representing 98.7% agreed that they could discuss group assignments and other school works with classmates through the use of the mobile phones. On the contrary, only two of the student respondents representing 1.3% disagreed with the statement. With regards to teachers and workshop assistants, 14 respondents representing 56% agreed that students could discuss group assignments and other school works with their classmates through the use of the mobile phones. On the other hand, 11 teachers and

workshop assistants" respondents representing 44% disagreed that students should not use mobile phones to do group assignment. The results show that, mobile phones are also helpful to students for exchanging of useful information with their classmates about their studies.

The alarms on the mobile phones can guide students during studies was one of the items respondents responded to. One hundred and fifty student respondents representing 100% agreed with the statement with none of the respondents disagreeing with the statement that, the alarms on the mobile phones can guide students. Mobile phones are a useful time-keeping tool. They allow students who do not have a watch to keep track of the time so they can be punctual to their lessons. Phones have an alarm function that can be programmed to make sure that it woken one up on time each morning. The alarm on the phones can also be programmed to sound at predetermined time intervals to prompt students on which subject to study at any time. Twelve teachers and workshop assistant representing 48% of the respondents also agreed with the statement. Contrary to this, 13 respondents representing 52% disagreed with the statement that, the alarms on the mobile phones can guide students during studies.

According to Johnson, Levine, Smith and Smythe (2009), "technology is increasingly a means for empowering students, a method for communication and socializing, and a ubiquitous, transparent part of their lives". With respect to the statement that mobile phones enable students to have access to libraries, 144 student respondents representing 96% agreed that mobile phones enable to have them to have access to online library

services with only 4% of the respondents disagreeing with the statement. In addition, 23 out of 25 teachers and workshop assistant respondents representing 92% agreed with the statement while two of the respondents representing 8% disagreed with the statement.

With regards to the last item in Table 4.5 that „mobile phones enable students to download educational materials from the internet," 150 student respondents representing 100% agreed with the statement that the mobile phones enable them to download educational software materials from the internet with none disagreeing. In addition, 25 teachers and workshop attendants representing 100% of the respondents also agreed that, mobile phones enable students to download educational materials from the internet.

4.5 Health Implications on the usage of these Phones

Three questionnaire items were used to seek the views of students, on the health implications of mobile phones use. Item-by-item frequencies and percentages of responses are shown in Table 4.6.

Table 4.6: Health implications on the usage of these phones

S/N	Statement	Yes	No	Total
20	Have you experienced any discomfort or pain in shoulder or hand after prolonged usage of smartphones?	87 58%	63 42%	150 100%
21	Have you experienced tangling sensation in your arm, shoulder or hand after using the smartphones?	29 19.3%	121 80.7%	150 100%
22	Have you experienced such symptoms as a headache, fatigue, distraction, inattention after prolonged usage of smartphones?	39 26%	111 74%	150 100%

The empirical findings in Table 4.6 of the study depict that 87(58%) student respondents agreed that they have experienced discomfort or pains in the shoulder or hand after prolonged use of cell phone. On the other hand, 63(42 %) respondents disagreed that they have experienced any form of discomfort or pains after prolonged use of the cell phone.

In responding to tangling sensation in the arm, shoulder or hand after using the smartphones, 29(19.3%) of the students respondents agreed that they have experienced tangling sensation in the arm, shoulder or hand after using the cell phone for a long time, on the other hand, 121 of the students representing 80.7% respondents disagreed with the statement.

With regards to item 22, students were asked to indicate whether or not they have symptoms as headache, fatigue, distraction or inattention after prolonged usage of smartphones. In response, 39(26%) student respondents responded "yes", while, 111 of them representing 74% of the respondents disagreed that they have experienced any form of symptom as headache, fatigue, distraction, inattention after prolong use of cell phone. This finding may means that most students may not be aware of the health implications of using the cell phone for a long period of time.

CHAPTER FIVE

SUMMARY OF FINDINGS, CONCLUSIONS AND RECOMMENDATIONS

The final chapter presents the summary of findings, conclusions and recommendations of the study. The study focused on the challenges students face for not being allowed to use mobile phones in second cycle institutions in Ghana - a case study of Dabokpa Technical Institute in the Tamale Metropolis. The researcher used descriptive research design for the study. The sample size for the study was 185 and a questionnaire was used to collect data for the study. The random sampling technique was used to select 165 students who have experienced high school education for a minimum of one year. The sample also included GES personnel, teachers and workshop assistants who were purposively sampled for the study

5.1 Summary of Findings

The principal objective of the study was to examine the challenges students face for not being allowed to use mobile phone in school using Dabokpa Technical Institute in the Tamale Metropolis in the Northern Region of Ghana as a case study.

i. The study revealed that due to restrictions placed on mobile phones use in schools by GES, most students agreed that they find it difficult to communicate with their families and relations without mobile phones.

ii. The study indicated that students face challenges in getting online information on subjects they study in school without the use of mobile phones. The study also showed that students were unable to receive money from parents or any form of help without mobile phones.

iii. According to the study, students also have difficulties in accessing online library services and download educational materials from the internet without the use of mobile phones.

iv. The study results showed that majority of the students did not think mobile phones could cause distraction in class, although some of them were of the view that mobile phone use in class is destructive.

v. Most of the students did not believe the use of phone could affect their performance academically rather, it will help them do research to consolidate what is taught in class.

vi. The study also revealed that, most students were not aware of the adverse health effects associated with prolonged use of cell phones.

vii. The study also showed that, teachers and workshop assistants were of the view that students would use the mobile phone mostly to communicate, browse the internet for information, access on line library services and download educational materials for their studies.

viii. Representatives of the GES who were part of the sample maintained that, if students were allowed to use mobile phones, they would use them for texting, conversing, playing of games and watching pornographic videos, which would by and large affect their academic performances in school.

5.2 Conclusion

Based on the findings of the study, the following conclusions were made:

i. Majority of students have difficulties in communicating with their families and relations as a result of GES policy to ban the use of mobile phones in schools.

ii. Students do not get easy access to online library services, download educational materials from the internet on subjects being studied at school and the difficulty in receiving mobile money and other forms of help from parents due to the ban on mobile phone use in schools by GES.

iii. Some of the students agreed that, mobile phones could be sources of destruction in class but did not believe the use of phones could affect their academic performances.

5.3 Recommendations

The following recommendations are therefore made premised on the findings of this study:

i. Total ban should not be placed on the use of mobile phones by students of second cycle institutions since there are educational benefits inherent in the use of mobile phones.

ii. Appropriate rules and regulations that could guide secondary school students on the use of mobile phones within the school environment should be put in place.

iii. The Ghana Education Service through the Curriculum Research Development Division (CRDD) may redesign the school curriculum to suit the use of mobile phones in both basic and second cycle schools as part of learning tools.

iv. Finally, the Ministry of Education through Ghana Education Service should reconsider the decision for prohibiting mobile phones use in second cycle institutions and possibly put control measures in place to minimize any form of misuse or destructions that the mobile phones may cause by students during school sessions to improve students‟ academic performance.

5.4 Suggestions for Further Research

Based on the conclusions and recommendations made, the researcher suggests that a similar research should be undertaken to investigate the following:

i. The usefulness of mobile phones to students in the educational sector.
ii. The impact of mobile phone usage on students‟ academic performance.
iii. Basic and Second cycle schools‟ awareness and use of mobile phones for academic purpose.
iv. The influence of mobile phone use on learning skills acquired by students.

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APPENDIX A

QUESTIONNAIRE FOR STUDENTS

The researcher is a student of UEW, Kumasi Campus who conducting a piece of research on the challenges students face for not allowed to use mobile phones in school schools in Tamale metropolis in the Northern Region. I respectfully request that you form part of this research by completing the attached questionnaire. This is seeking to solicit your opinion on the challenges students face for not allowed to use mobile phone in second cycle institutions in Ghana. Kindly respond to the following questions as frankly as possible. Please be assured that, your responses will be kept confidential and solely for academic purposes.

Thank you.

INSTRUCTIONS

Please tick ✓ in the appropriate box below. Thank you.

Section A: Bio – data

1. Age: 12-16yrs. [ ] 17-21yrs. [ ] 22 and above [ ]
2. Male [ ] Female [ ]
3. Current Year of study 2nd Year Day [ ] Boarder [ ] 3rd Year Day [ ] Boarder [ ]

Section B: Students' familiarity with mobile phone

4. Do you have any knowledge about mobile phone? Yes [ ] No [ ]
5. If you indicate yes, do you own one at home? Yes [ ] No [ ]
6. What brand of cell phone do you have?

   Please specify…….....
7. Are you able to make and receive calls on mobile phone? Yes [ ] No [ ]

   Don"t know how to use [ ]
8. If your answer in question (6) is „yes" then how many times in a day?

   A 1-10 [ ]

   B 11-20 [ ]

   C more than 20 [ ]

Section C: What factors caused the GES to ban the use of phones by students in school?

Please tick ✓

S/N	Statement	Yes	No
9	Mobile phones can cause distraction in class		
10	Students can use phone mostly in texting, conversing and engaging in social media		
11	The use of phones can affect students" academic performance in school		
12	Students may concentrate more often on phones than their books		
13	Students may play games most of the time on their mobile phone		
14	Students can sleep in class due to over use of mobile phone in the night		
15	Student may be fidgeting with their mobile phones in school instead of their books		

Section D: What challenges do students face for not using phones in school?

S/N	Statement	Always	Sometimes	Not at all
16	It is difficult to communicate to family and friends without mobile phone			
17	Students cannot get online information on subjects being studied			
18	Difficult to access information and help from parents without mobile phone			
19	Difficult to receive money from parents without mobile phones			
20	Students cannot do effective research without mobile phone			

Section E: What are the benefits of mobile phones use by students?

S/N	Statement	Agree	Strongly Agree	Disagree	Strongly Disagree
21	Mobile phones make it easy to communicate to family and friends				
22	Mobile phone enables students to receive money safely from parents				
23	Mobile phones enable students to browse the internet to help them is their studies				
24	Mobile phones enable students to use the face book				
25	Students can discuss group assignment and other school work with classmates through mobile phone				
26	The alarms on the mobile phones can guide students during studies				
27	Mobile phones enable students to have access to online library services				
28	Mobile phones enable students to download educational materials from the internet				

Section F: Health implications on the usage of these phones

29. Have you experienced any discomfort or pains in shoulder or hand after prolong usage of smartphones? Yes [ ] No [ ]
30. Have you experienced tangling sensation in your arm, shoulder or hand after using the smartphones? Yes [ ] No [ ]
31. Have you experienced such symptoms as a headache, fatigue, distraction, inattention after prolonged usage of smartphones? Yes [ ] No [ ]

Thank you.

APPENDIX B

QUESTIONNAIRE FOR TEACHERS AND WORKSHOP ASSISTANTS

The researcher is a student of UEW; Kumasi Campus who is conducting a piece of research on the challenges students face for not allowed using mobile phones in schools in Tamale metropolis in the Northern Region. I respectfully request that you form part of this research by completing the attached questionnaire. This is seeking to solicit your opinion on the challenges students face for not allowed to use mobile phone in second cycle institutions in Ghana. Kindly respond to the following questions as frankly as possible. Please be assured that, your responses will be kept confidential and solely for academic purposes.

Thank you.

Section A: Personal Data

1. Age: 21-24 years [ ] 25-29yrs. [ ] 30 and above [ ]

2. Sex: Male [ ] Female [ ]

Section B: Teachers and workshop assistants' familiarity with mobile phone

3. Do you have any knowledge about mobile phone? Yes [ ] No [ ]

4. If you indicate yes, do you own one at home? Yes [ ] No [ ]

5. What brand of cell phone do you have?

Please specify…….....

Section C: What factors caused the GES to ban the use of phones by students in school?

S/N	Statement	Yes	No
6	Mobile phones can cause distraction in class		
7	Students can use phone mostly in texting, conversing and engaging in social media		
8	The use of phones can affect students" academic performance in school		
9	Students may concentrate more often on phones than their books		
10	Students may play games most of the time on their mobile phone		
11	Students can sleep in class due to over use of mobile phone in the night		
12	Student may be fidgeting with their mobile phones in school instead of their books		

Section D: What challenges do students face for not using phones in school?

S/N	Statement	Strongly agree	Agree	Strongly disagree	disagree
13	It is difficult to communicate to family and relations without a mobile phone				
14	Students cannot get online information on subjects being studied				
15	Difficult to access information and help from parents without mobile phone				
16	Difficult to receive money from parents without mobile phones				
17	Students cannot do effective research without mobile phone				

Section E: What are the benefits of mobile phones use by students?

S/N	Statement	Agree	Strongly Agree	Disagree	Strongly Disagree
18	Mobile phones make it easy to communicate to family and friends				
19	Mobile phone enables students to receive money safely from parents				
20	Mobile phones enable students to browse the internet to help them is their studies				
21	Mobile phones enable students to use the face book				
22	Students can discuss group assignment and other school work with classmates through mobile phone				
23	The alarms on the mobile phones can guide students during studies				
24	Mobile phones enable students to have access to online library services				
25	Mobile phones enable students to download educational materials from the internet				

Thank you.

APPENDIX C

QUESTIONNAIRE FOR GHANA EDUCATION OFFICERS (REGIONAL, MUNICIPAL DIRECTORATES AND CIRCUIT SUPERVISORS)

The researcher is a student of UEW; Kumasi Campus who is conducting a piece of research on the challenges students face for not allowed using mobile phones in schools in Tamale metropolis in the Northern Region. I respectfully request that you form part of this research by completing the attached questionnaire. This is seeking to solicit your opinion on the challenges students face for not allowed to use mobile phone in second cycle institutions in Ghana. Kindly respond to the following questions as frankly as possible. Please be assured that, your responses will be kept confidential and solely for academic purposes.

Thank you.

Section A: Personal Data

1. Age: 21-24 years [ ]

   25-29yrs. [ ]

   30 and above [ ]

2. Sex: Male [ ] Female [ ]

Section B: What factors caused the GES to ban the use of phones by students in school?

S/N	Statement	Yes	No
1	Mobile phones cause distraction in class		
2	The use of phones can affect students‟ performance in school		
3	Poor students who cannot afford to buy phone and use would feel sad or ridiculed and this can affects their performance in school		
4	Poor students who cannot afford to buy phones may steal to also buy some		
5	Students may misuse phones to watch pornographic materials		
6	Students would spend much of their time making calls instead of reading.		

Thank you.