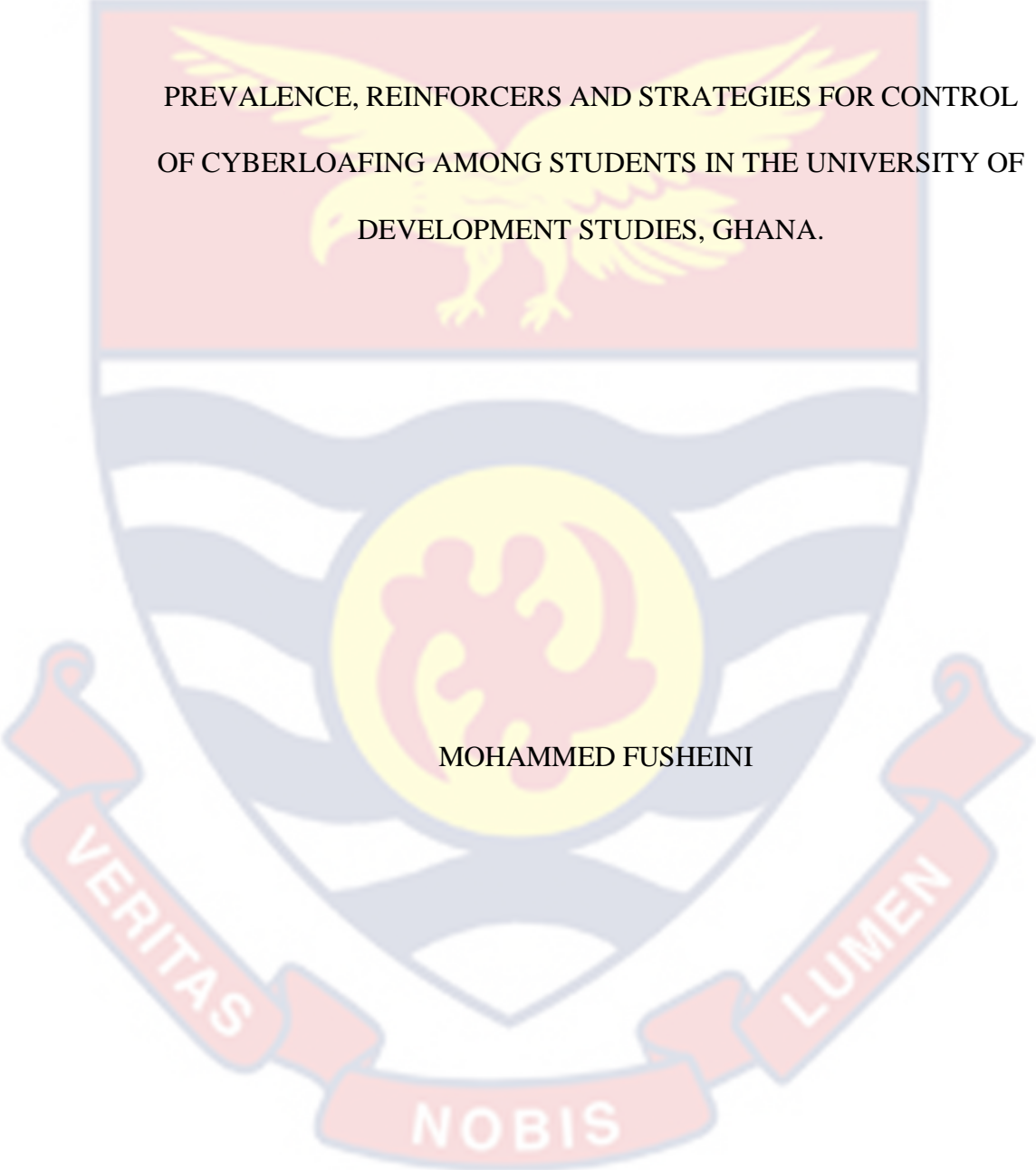UNIVERSITY OF CAPE COAST

PREVALENCE, REINFORCERS AND STRATEGIES FOR CONTROL

OF CYBERLOAFING AMONG STUDENTS IN THE UNIVERSITY OF

DEVELOPMENT STUDIES, GHANA.

MOHAMMED FUSHEINI

2022

UNIVERSITY OF CAPE COAST

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CONTROL OF CYBERLOAFING AMONG STUDENTS IN THE

UNIVERSITY OF DEVELOPMENT STUDIES, GHANA.

BY

MOHAMMED FUSHEINI

Thesis submitted to the Department of Education and Psychology of the Faculty of Educational Foundations of the College of Education Studies, University of Cape Coast, in partial fulfilment of the requirements for the award of Master of Philosophy degree in Educational Psychology

APRIL 2022

DECLARATION

Candidate's Declaration

I hereby declare that this thesis is the result of my own original research and that no part of it has been presented for another degree in this university or elsewhere.

Candidate's Signature: …………………….. Date: ………………….

Name: …………………………………………………………………………..
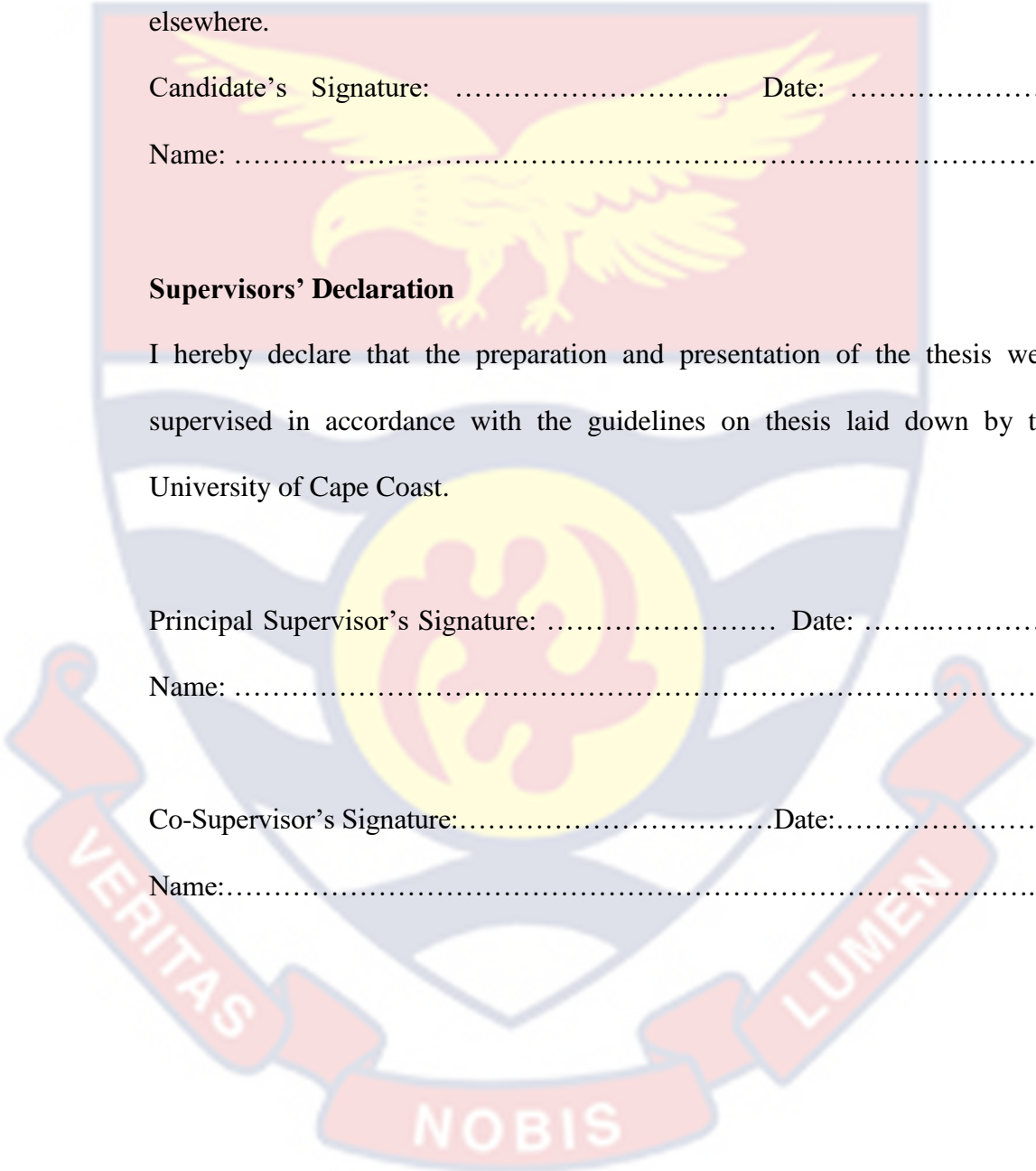
Supervisors' Declaration

I hereby declare that the preparation and presentation of the thesis were supervised in accordance with the guidelines on thesis laid down by the University of Cape Coast.

Principal Supervisor's Signature: …………………… Date: ……..…………

Name: …………………………………………………………………………….

Co-Supervisor's Signature:……………………………Date:…………………

Name:…………………………………………………………………………….

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ABSTRACT

In recent times, internet technology has gradually been integrated into university educational experience worldwide who now employ the use of internet in nearly all facets of their educational engagements. This has lifted a bigger part of classroom tasks of students as internet and technology use has activated transformation in teaching and learning as well as heightened productivity in the educational sector. This study examines cyberloafing activities among learners at the University for Development Studies (UDS) and its impact on their academic performance. The study employed the descriptive survey design. The study targeted 3000 education students offering Basic Education and Early Childhood as well as 693 students offering Community Health Nutrition at the University for Development Studies. The accessible population for this study were level 200 and 300 students offering Basic education and Early Childhood (463) as well as Community Health Nutrition

(340). Questionnaires were adapted and used for the study. Data obtained from the research questions were analysed using frequency and percentages. From the findings, it can be concluded that the most engaged in cyberloafing activity among students was playing online games during lectures. Again, factors that influenced students to engage in cyberloafing activities were mainly teacher factors. Moreover, gender and programme of students did not differ significantly in terms of cyberloafing activities they engage in during lectures. However, age differs. Lastly, cyberloafing activities did not impact on students" academic performance. This study recommends that management of universities should regulate internet usage among students.

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First and foremost, I am thankful to the Almighty Allah for giving me the strength, knowledge, and the ability to undertake this study and co mplete it successfully. Secondly, I would like to express my heartfelt appreciation to my supervisor, Prof. Koawo Edjah, for his generosity and wisdom over the course of this thesis. I would also want to express my gratitude to Dr. Ivy Kesewah Nkrumah of the Department of Education and Psychology at the University of Cape Coast (UCC) for her invaluable assistance and contributions during the entire process of writing this thesis. Also, i am grateful to my twin sisters, Hajia Sanatu, Hajia Fusheina ,Mr Arimiyaw, Mr Alhassan, Mr Abukari, Aunty Adamu Mr Bawa, my wife and kids and to the entire tailor zei family for their encouragement, prayers and support.

Finally, I would want to express my gratitude to my program mates and to everyone for their assistance.
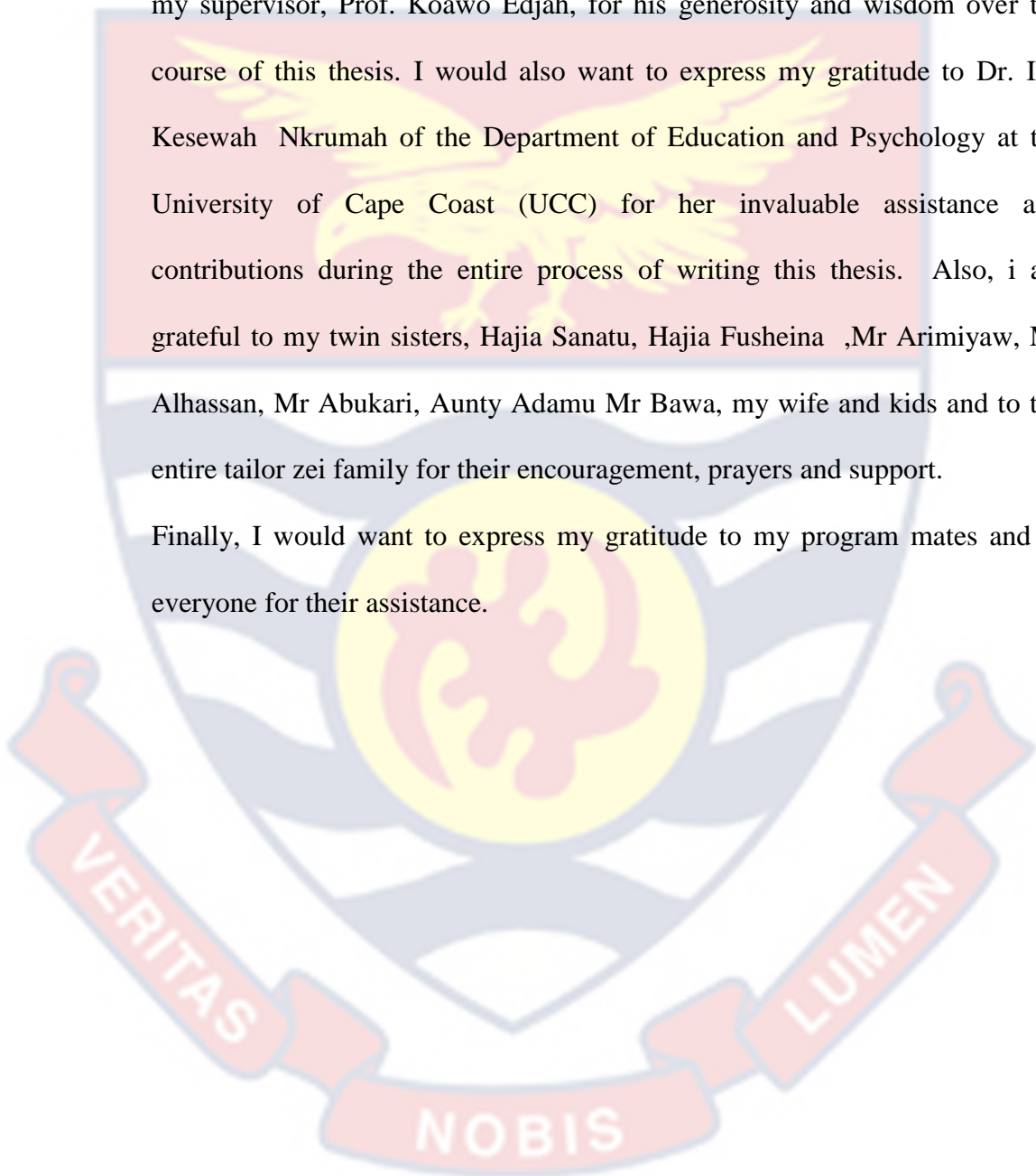
DEDICATION

To my lovely Mon, Hajia Barchisu Fusheini, my late Dad Fusheini Dassana
and to the loving memory of my big brother Issahak Fusheini.

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IT	-	Information technology
ICT	-	Information Communication and Technology
ICD	-	Internet Connected Devices
CGPA	-	Cumulative Grade Point Average
TPB	-	Theory of Planned Behaviour
SLT	-	Social Learning Theory
IAD	-	Internet addiction disorder
DVD	-	Digital Video Disk
SMS	-	Short Message Service
UDS	-	University of Development Studies
CBES	-	Community-Based Education and Service
SAHS	-	School of Allied Health Sciences
FoE	-	Faculty of Education
CHN	-	Community Health Nutrition

CHAPTER ONE

INTRODUCTION

Background to the Study

Internet technology (IT) has become an integral component of university educational experience, and higher educational institutions worldwide now employ the use of internet technology in nearly all facets of their educational engagements (Yılmaz, Yılmaz, Öztürk, Sezer & Karademir, 2015; Almarghani & Mijatovic, 2017; Abbas, Aman, Nurunnabi, & Bano, 2019). Internet media have renewed communication, entertainment, work, and education by providing a platform where people can easily share information aptly, interact from almost any place in the world and learn remotely regardless of time and location. Thus, the internet provides a panoply of opportunities and substantial leverage to individuals and organizations alike by offering a fierce edge and a gateway to the global marketplace. Internet technology is also known to have help improve instruction, learning as well as students'' engagement in educational activities (Ryan & Scott, 2008; Marshall, 2010; Raja & Nagasubramani, 2018). As such, the present-day university student is more connected in and out of the classroom than before.

During instructional periods, students are confronted with such tasks as note-taking, assignments and exercises and other forms of quizzes and tests. These activities were remotely performed by students in the past, but the dawn of technology-driven devices has lifted a bigger part of such tasks from students to internet technology and this has additionally activated transformation in instruction and studying as well as heightened productivity in educational activities and institutions (Yebowaah, 2018). Arguably, the use

of the internet has assisted in shaping the former teacher-centered and textbook controlled approach into a more productive, learner-centered approach where there are problem-solving skills, collaborative and personalised learning (Chawinga, 2017).

Information and Communication Technology (ICT) laboratories have been established in both private and public Universities to help students utilize internet connected-devices and technologies when studying or in the course of their studies, to enable students access avenues, and to help them undertake performance-based events related to their studies. In their seminal study, Ordo n ez dePablos and Lytras, as cited in Yilmaz and Yurdugul (2018), stated that Information and Communication and Technology (ICT) tools and the school milieu are significant in spreading of knowledge and in enhancing cooperation and reinforcement among students, and they also add up to the relevance of formal and informal learning. In summary, internet application or use and internet connected-devices (ICD) in the teaching and learning process has become vital in tertiary institutions across the globe.

In an ideal world, instructors would expect students to use their internet-connected gadgets in a responsible manner. During classes, for instance, students might use their devices for class-related activities such as checking up material pertinent to their lessons or interacting with their instructors, writing their research papers, or soliciting for information to complement what is discussed in lectures and support their assignments. In some cases, educators" direct students to read materials online either because the books are unavailable in print or in small quantities. Students can even access online materials in the form of quizlets and other test materials to

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prepare themselves for examinations. However, the benefits of IT devices in the classroom have become a debatable theme among academic investigators, as some (Gomez & Pather, 2012; Lam & Tong, 2012; Stanley, Doucouliagos & Steel, 2018) claim that they may even pose more threats than the positive benefits that are assumed to have accrue from them. For instance, there are complaints that students use the Internet for non-academic purposes, which creates a barrier to the effective integration of the Internet as well as ICTs as part of the environment for conducive studying.

Ragan, Jennings, Massey and Doolittle (2014) have shown that for non-class connected reasons, many students bring their digital gadgets or devices such as; iPads, cell phones, and laptop computers, tablets among others into classroom. Quite often, they tend to share their attentional resources between the lecture and some other activity on the internet, such as checking social media updates or updating their status on Whatsapp (Almasi, Machumu, & Zhu, 2017; Kolan & Dincer, 2018; Saritepeci, 2020; Glass & Kang, 2019). Multitasking and the use of digital devices while lectures are ongoing can either affect student‟s grades or impair good study outcomes (Fried, 2008; Hembrooke & Gay, 2003; Ravizza, Hambrick, & Fenn, 2013; Sana, Weston, & Cepeda, 2013). Multitasking presents a serious threat to student learning (Sana, Weston, & Cepeda, 2013). Hembrooke and Gay (2003) have also noted that learners who are prevented from using their laptops and other digital devices during lessons are able to recollect class content much better than students who are allowed to use them. This emphasizes why some instructors do disallow students from using digital devices in the classroom during lectures. Some instructors in college and university have urged learners

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to desist from using digital devices whenever class is in session with the aim that more attention may come from learners and that they may engage in making of relevant notes (Guessoum, 2016; Heyboer, 2016) during lesson. Regardless, many students continue to utilize internet technology to partake in projects that have little or no link to what is being presented in the class (Fried, 2008; Ragan et al., 2014; Ravizza, Hambrick, & Fenn, 2014).

In the business settings, for example, advances in technology were assumed to have enhanced employee productivity in varied ways such as increased accessibility to vital facts and details, catalyzing task performance, and boosting collaboration in a diversity of ways (e.g., enabling virtual teamwork, telecommuting, among others). Corporations that provide frequent and accessible access to information technology, on the other hand, expose their employees to the possibility of misusing such technology. An online study of over two thousand American employees found out that 62% of those who took part admitted to spending parts of their workday on social networking websites, with 10% reporting that they spent 30% or more of their weekday on such sites (D'Arcy & Devaraj, 2012). Only 14 percent of employees who were regularly utilizing social media at work restricted their use to lunch breaks or other unpaid time periods. In a separate survey, Lim (2002) found that 89 percent of employees admitted to squandering time at work on a daily basis, with 57 percent claiming to waste at least an hour each day; all of the most widely used time-wasting tactics consisted of browsing numerous websites for personal gain. Cyberloafing is a phrase that refers to the personal use of the internet while working in a professional atmosphere (Lim, 2002). Other terms, such as cyber slacking, non-work-related

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computing, cyberbludging, on-line loafing, web deviations, pathological net utilization, personal pc utilization for tasks, attachment to the net, net abuse, internet addiction, and internet addiction disorder, are used to describe the same or similar behaviors. Net dependency, Web addiction, Web abuse, and Net addiction disorder are all used to describe the same or similar behaviours (Kim & Byrne, 2011).

When it comes to employment, cyberloafing has traditionally been characterized as the use of the Internet for personal advantage (Lim, 2002). Scholars, on the other hand, have expanded the definition of cyberloafing to cover a variety of different types of unproductive behaviour and have recommended a number of behaviours that might be classified as cyberloafing. As an illustration, Lim (2002) argues that it includes surfing the web (i.e., surfing non-work sites) and emailing actions (i.e., finding, transferring, or getting individual e-mails), whilst Blanchard and Henle (2008) define cyberloafing activities as including minor (i.e., personal emailing, surfing headlines or sports sites, internet ordering, auctions) and severe (i.e., internet poker, browsing pornographic websites, uploading tunes that are illegal, partaking in chat rooms etc). In recent years, experts have updated their coverage of cyberloafing behaviours in response to advancements in evolving online communication prospects. They have concentrated their studies on web-based activities such as viewing clips on net, blog posts, and using social media platforms (Akbulut et al., 2016, 2017; Baturay & Toker, 2015). Examples include the work of Akbulut and colleagues (2016), who established a measure of cyberloafing that includes items for social networking that touch aspects such as posting, purchasing,

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accessing online information, real-time updating, and gaming/gambling, among others. Sharing on social networking sites includes posting messages, pictures, and videos, posting stuff and having a chat; shopping on social media platforms includes exploring online stores and financial services; real-time improvement on social media platforms includes attempting to access internet services includes uploading apps and viewing videos found on the net; posting on twitter and retweeting; and gambling on online communities includes playing online games and betting. In their paper, Cheng, Zhou, Guo, and Yang (2020) describe cyberloafing as a deviant workplace behaviour that is a type of production deviance in which staff members try to abuse their period during business hours on non-work-related browsing habits, like surfing social media platforms, enjoying online games, observing online videos, and sending personal messages, rather than on work-related browsing habits. Consequently, by indulging in cyberloafing, workers are provided with the opportunity to enjoy the best of both worlds while apparently operating as a meticulous worker but in reality, they are utilizing the internet for personal purposes (Fichtner & Strader, 2014). Cyberloafing is considered to be a form of detrimental divergent behaviour at where one does their job.

Cyberloafing was formerly predominant in organisational settings and had attracted a lot of research in several organisations. It is a common topic in business and management and has been reported as inimical to workplace productivity. It is considered as an aberrant workplace attitude, that is a kind of production deviance, as workers use their assigned time for work on irrelevant (non-work related) online engagements (Jandaghi et al., 2015; Lim, 2002; Tuncer, 2019) like playing online games, surfing social media, sending

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private texts and watching online videos. Cyberloafing behaviours have gone beyond business and organisational settings and entered the school settings, in particular the university classrooms. Technically described, as internet filters into the classroom, so as the prevalence of students misusing internet. A couple of researchers even claim that cyberloafing which is being done by learners is seen more in comparison with business employees, perhaps because learners get fewer tough schedules and therefore are inclined to staying on their internet-connected devices. In any way, cyberloafing has been underexplored in academic settings. In the context of education, cyberloafing is operationalised as learner's internet usage for extraneous, non-class connected activities when class is ongoing. Thus, the use of the Internet during lessons (otherwise described as lectures) other purposes either than the search image under discussion is described as cyberloafing. Put another way, Cyberloafing involves a learner engaging in electronically-mediated behaviour and act during lectures that the lecturer does not consider academic-related (Gerow et al, 2010).

Gerow, Galluch, and Thatcher (2010) listed examples of cyberloafing activities in the classroom environment to include playing online games, sending and receiving emails, updating status on social media and watching videos online (Brubaker, 2006; Dursun, Donmez & Akbulut, 2018; Kalayci, 2010). Other studies have also listed online shopping, visiting websites, posting images, giving out mails to others online, enjoying pc games, watching news on the web, running and viewing personal webpages, conversing electronically, uploading songs, and browsing pornographic websites (Glassman, Proschn & Shao, 2015, Blanchard & Henle, 2008) as

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cyberloafing activities. These cyberloafing behaviours are demonstrated during lessons, thus, while lectures are ongoing. Oftentimes, students try to engage in activities on their phones while assuming they are paying attention during lectures. This is known as multitasking. But, by doing so, students engage themselves in cyberloafing activities and therefore distract themselves from the content. Most students engage in multitasking during lectures and this shifts their attention from what is being taught in class to irrelevant information from social media and websites.

According to Lim (2002), cyberloafing has a detrimental impact on the learning environment because it produces distractions and interferes with students' tendency to concentrate and notice issues. Many other studies have reported the detrimental effects of cyberloafing to students" achievements and conduct (Wu, Mei & Urgin, 2018; Varol & Yıldırım, 2019; Akgün, 2020). The negative impacts of cyberloafing in the class are rather well documented, since it has been linked to poor learner outcomes, such as worse test scores and a lower Grade point average for learners (Wu, Mei & Urgin, 2018; Varol & Yıldırım, 2019; Akgün, 2020), because it involves students" ability to multitask. It is also negatively affecting their enthusiasm, time and focus that could have been channelled into learning (Heflin, Shewmaker & Nguyen, 2017). Cyberloafing also distracts the attention of students and inhibits deeper learning (Ravizza, Hambrick & Fenn, 2014). The consequences of out-of-class cyberloafing have not been thoroughly investigated and are still unknown. In most cases, student cyberloafing has been related with wasting time during class sessions. Students, on the other hand, do not stop studying when the school bell sounds; rather, they begin over. Cyberloafing is the term used to

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describe personal Web activity outside of the classroom that interferes with academic performance. According to research, there is a negative association between the quantity of lei-surely Internet activity that college students participate in at house and their grade point average (Cheng, Zhou, Guo, &Yang, 2020). Unfortunately, the frequency of cyberloafing activities by students are likely to increase because of the improvement in instant accessibility to internet and mobile technologies.

Another critical factor that requires attention is the issue of gender since cyberloafing is a technology-centric phenomenon (Venkatesh, Thong, & Xu, 2012). It has been asserted that males generally devote more hours on accomplishments that are of relevance to the person more than their female counterparts (Bianchi, Milkie, Sayer & Robinson, 2000). Literature is replete with several studies that examined the role of gender where male participants outdid their female counterparts in cyberloafing results (Askew, 2012; Baturay & Toker, 2015; Lim & Chen, 2012). Interestingly, current scholarly works reveal that gender disparities in cyberloafing activity may fluctuate depending on its form and features (Akbulut et al., 2016). Other demographic variables such as students" programme of study and age, require attention in the cyberloafing literature.

Statement of the Problem

In this day and age, more students bring their web-linked mobile devices into the classroom during lectures and may use it for both academic and non-academic purposes. In a time when students have easy accessibility to numerous data and entertainment at the tips of their fingers, they are often left with divided attention between more than one task, such as checking social

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media during class hours or updating their status while a lecture is going on (Blanchard & Henle, 2008; Fichtner & Strader, 2014; Glassman, Proschn & Shao, 2014; Cheng, Zhou, Guo, &Yang, 2020).

Most students think that they can multitask effectively during lectures, but it is very difficult to divide their attention equally amongst two tasks and more often than not causes learners to pay more attention to the cyberloafing activities that they engage in. These activities therefore distract students focus in general, and specifically their learning. One of the core responsibilities of every educator is to explore activities that affect learners" studies and instruction in the educational settings. The aim is to minimise or completely block, if possible, those activities that impede teaching and learning and encourage those that enhance it. Cyberloafing is a potential threat to classroom instruction, which makes it important for educators to study the types of cyberloafing activities learners engage in and identify ways to manage such activities in schools in general and the classroom in particular. Whereas Cyberloafing activities has attracted attention among researchers in the Western (Brubaker, 2006), Asia (Wu, Mei & Ugrin, 2018) and the Oceania (Soral, Arayankalam & Pandey, 2020), not much has been explored on the phenomenon in Africa, especially Ghana. This accentuates the need to do this research in order to explore the motivation, effects and other concomitant factors of cyberloafing, because if the behaviour is not managed well among university students, they may carry it into their various workplaces and consequently affect productivity in the labour force when they go to work after school. However, there have been limited empirical studies in this research area, especially in educational psychology. Also, research works on

cyberloafing activities in the educational setting rarely examine age, sex and program differences which make their findings difficult to generalize.

More importantly, most of the available research on cyberloafing in educational settings have been performed outside Ghana which makes their finding ecologically unfriendly and have primarily explored the benefits of Internet use with little focus on its antecedents. Thus, this research therefore sought to examine cyberloafing activities among students in the University for Development Studies- Tamale, Ghana as there are no studies to that effect in the school before.

Purpose of the Study

The study seeks to examine incidence of cyberloafing activities among university students and its impact on learners" academic performance.

Research Objectives

Specifically, the objectives of this study are to:

    a. Explore the types of cyberloafing activities that university students engage in.

    b. Find out the prevalence of cyberloafing activities among university students.

    c. Examine the precursors of cyberloafing activities among university students.

    d. Ascertain the impact of cyberloafing on students" academic performance.

    e. Instigate ways of minimizing cyberloafing activities among students.

Research Questions

The research or investigation was guided by the following questions

1. What are the types of cyberloafing activities that students engage in?

2. To what extent do university students engage in cyberloafing activities?

3. What are the precursors of cyberloafing behaviours among students?

4. What are the perceived impact of cyberloafing among students?

5. Which strategies can be employed to minimise Cyberloafing activities among university students?

Research Hypothesis

The following hypotheses were tested in the study

1. H_0: There is no statistically significant sex difference in the frequency of cyberloafing activities among students.

    H_1: There is statistically significant sex difference in the frequency of cyberloafing activities among students.

2. H_0: There is no statistically significant age difference in the frequency of cyberloafing activities among students.

    H_1: There is a statistically significant age difference in the frequency of cyberloafing activities among students.

3. H_0: There is no statistically programme differences in the frequency of cyberloafing activities among students.

    H_1: There is a statistically significant programme differences in the frequency of cyberloafing activities among students.

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4. H_0: There is no statistically significant impact of cyberloafing activities on students" academic performance.

H_1: There is a statistically significant impact of cyberloafing activities on students" academic performance.

Significance of the Study

In the business organisations, research shows that cyberloafing is counterproductive to employees" productivity. Many business organisations have therefore put mechanisms in place to minimise the act. The word organizational control, for instance, is often used in conjunction with other concepts such as professional management, system management, policy management, and behaviour management. These are examples of possible methods that might be used to monitor and manage workers' cyberloafing behaviour. Taking such steps enables staff to adhere to the rules and objectives of their employers regarding cyberloafing. When leaders put procedures in place to ensure that employees abide by organizational norms and policies regarding cyberloafing, workers are more willing to do so. Findings from the present study will therefore inform university management and other educational stakeholders on the impact of cyberloafing activities among students. Further, since the study gathered data on how cyberloafing can be managed, the findings will be relevant for policy decision making on how to manage such behaviours in the university classrooms.

Again, the study will no doubt serve as a relevant material for further studies on the subject. It will offer a stock of literature for subsequent studies on cyberloafing activities and its related issues.

Delimitation of the Study

The study will focus on Cyberloafing activities among university

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students and its impact on learners" academic performance in the University for Development Study, Tamale. The study was restricted to University of Development Studies within Tamale campus, Ghana. Level 200 and 300 undergraduate education students were the main participants for the study. The positivist paradigm was used to provide the analyses of the issues at hand. The participants were selected with no recourse to their ethnic, religion, tribe, cultural or socio-economic backgrounds.

Limitations

The researcher anticipated that some students may not be truthful in their response to some of the questions in the questionnaire which were likely to affect the findings of the study.

Operational Definitions

Cyberloafing: Students' usage of the web for unnecessary, non-class-oriented issues during the instructional hour is referred to as cyberloafing.
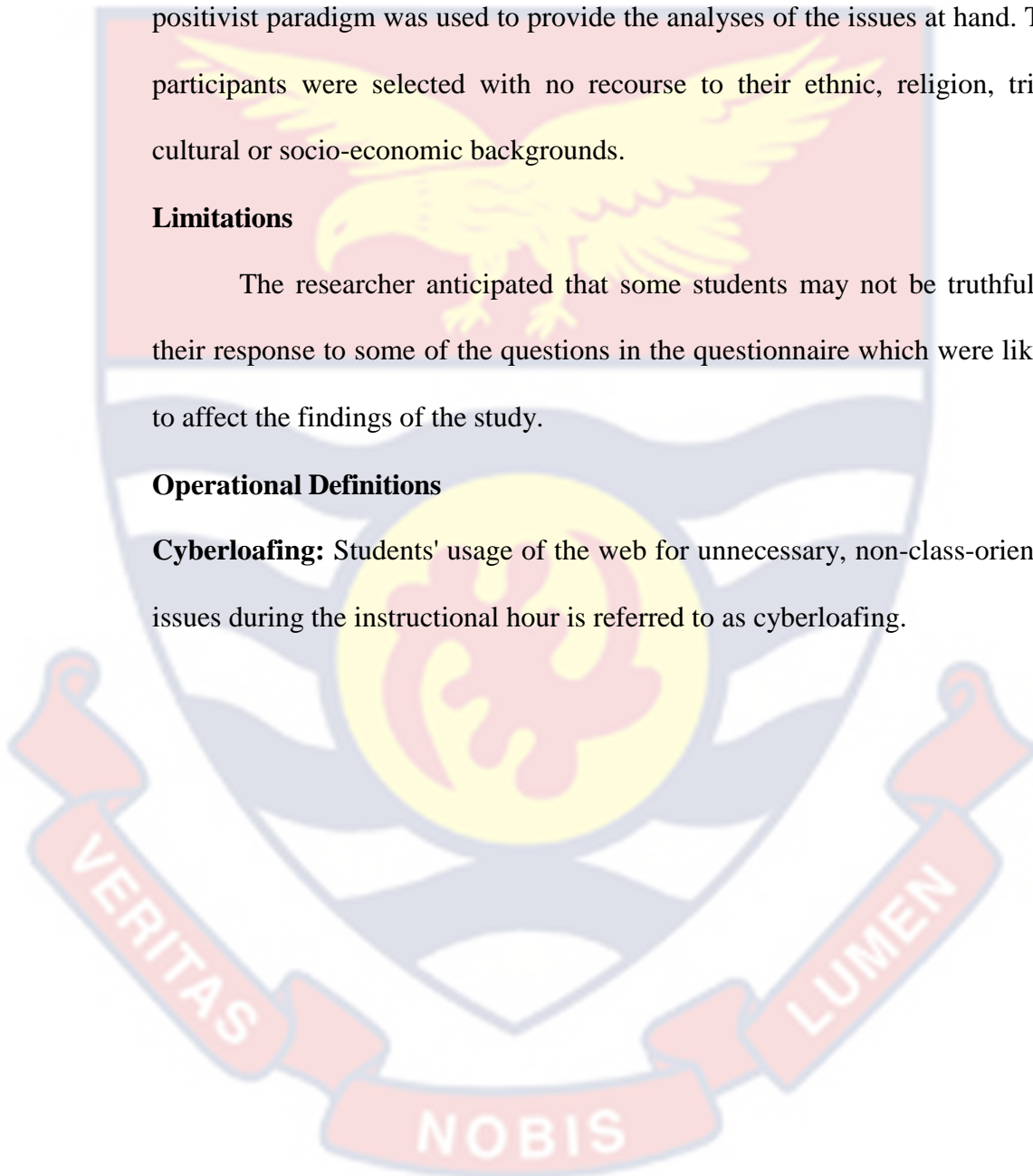
Academic performance: In academics, performance is defined as the sum of a student's achievements in a range of academic courses. This variable was measured by CGPA in this study.

Internet-connected devices: Internet-connected gadgets are those that are linked to the web by a wireless connection such as WiFi, Bluetooth, or a direct attachment such as a USB cord. Devices that are linked to the internet may send and receive data, respond to voice instructions, and be operated remotely from a laptop, cellphone, or desktop computer etc.

Young adults: Students in the ages of 18 to 25.

Adults: Students between the ages of 26 to 33 years of age.

Early Childhood Education: Early childhood education (ECE), sometimes known as pre - kindergarten, is a college curriculum that is concerned with the instruction of children (both formally and informally) from the time they are born until they reach the age of eighteen years. Up to the equivalency of third grade, this has generally been the case.

Basic Education: Basic education is a university curriculum that consists of elementary education (the first stage of basic education) and lower secondary education (the second level of basic education) (second stage). This includes a wide range of non-formal and informal activities that are meant to address the fundamental learning requirements of individuals of all ages and backgrounds.

Community Health Nutrition: It is the discipline of assisting people and communities in developing good lifestyle practices in effort to promote wellbeing and avoid disease that is the focus of the Community Health Nutrition degree program at universities.

Organization of the Study

The study was divided into five sections, each of which was titled. The background to the study, the statement of the problem, the purpose of the study, the objectives of the study, the research questions, the research hypothesis, the significance of the study, the delimitations and limitations of the investigation, the definition of terms, and the organization of the study were all covered in Chapter One of the dissertation. Specifically, chapter two covered literature reviews on the aspects and advantages of information and communication technology tools, the negative impact of students' ICT use and Cyberloafing learning environments, the effect of cyberloafing operations in the teaching and learning process, the concept of social learning theories: Bandura (1965) and the theory of planned behaviour, the theoretical background on cyberloafing activities, and finally, empirical research on the topic. The research methodologies that will be employed were discussed in detail in the third chapter. Among these were the research design, the study region, the population, the sampling procedure, the data collecting tools, the data collection processes, and the techniques for data processing and analysis. The results and discussions were provided in the fourth chapter, while the summary, conclusions, recommendations, and proposals for further research were covered in the fifth chapter. Chapter five also included recommendations for additional research.

CHAPTER TWO

LITERATURE REVIEW

Introduction

This aspect of the study discusses the pertinent concepts, appropriate theories and related literature surrounding the research. Thus, cyberloafing activities among university students: its impact on learners" academic performance. It goes through the ideas that support the study, including Social Learning Theory by Bandura and Theory of Planned Behaviour by Ajzen. The concepts of observation, imitation, modelling, cyberloafing and academic performance were also explored. In addition, the conceptual framework was illustrated and the review of related literature was done as well.

Theoretical Framework

This aspect of the investigation explores the theories that underpin the investigation. Social Learning theory and Theory of planned behaviour were explored in this investigation. As a result, each of the theory is described in turn.

Social learning theory

A fundamental component of human civilization, according to Muro and Jeffrey (2008), is the Theory of Social Learning, which involves the start and encouragement of a desired behavioural change in participants. In this theory, education or learning through social conversations with others is supported by empirical evidence. Following the acts of others, some people may adopt similar behaviours as a result of their own observations. Individuals learn from and mimic the actions of others after witnessing them, more regularly, if their observational encounters are positive or involve incentives

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that are linked to the observed actions. Imitation includes the accurate repetition of previously seen motor movements (Bandura, 1977).

As a result of its foundation in fundamental concepts of conventional learning theory, SLT has emerged as one of the most influential learning theories in recent history. According to some, it bridges the gap between behaviouralist and cognitive learning theories by explaining how people pay attention, remember things, and motivate themselves. According to Bandura, direct reinforcement cannot explain all kinds of learning in all situations (Muro & Jeffrey, 2008). A social component was then included to his theory, with the implication that learners may learn new information and actions by observing others. Following the aspects of this notion, there are three broad rules for learning from one another that may be used.

General principles of social learning theory

Generally speaking, it is believed that the values of social learning continue to work in an identical way during one's lifetime. It is possible to learn through observation at any age, as per study. Individuals can acquire attitudes from each other in a number of forms, as per SLT theory:

- Observation

- Imitation

- Modelling

These fundamental rules must be observed and followed in order for learning to take place without the need for a change in behaviour. As opposed to those who believe that learning must be represented by long-term behavioural change, social learning theorists believe that people can learn just by watching others, and that, as a consequence, acquisition of

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knowledge usually might not be represented in their own output as per statements by Bandura (1965). It is possible that learning will result in behavioural change (Bandura, 2006). Bandura proved the role or essence of cognition on learning and the theory in general has evolved to become increasingly acceptable in its understanding of how people learn over the last 30 years; these concepts are supported by empirical evidence (Newman & Newman 2010).

According to Bandura (2006), modelling may be used to teach many different types of behaviours. Children may observe older adults reading, learners may witness demonstrations of math problems, or they may witness others presenting themselves courageously in a terrifying situation, to mention a few examples (Bandura, 2006). Aggression may also be taught through the use of models that are based on this idea. Numerous studies have found that when children are exposed to aggressive or violent role models, they become more aggressive themselves. According to this theory, observation and modelling have an influence on moral thought and behaviour. So, learning requires making moral judgments about what is right and wrong, which may be facilitated in part by modelling and role-play.

Models are individuals who are being watched, and modelling is also used to describe the process of learning from these individuals. Whenever a person perceives good or favourable results in the early stage of social learning, the subsequent stages of social learning described by Bandura will take place. A teacher who perceives a class and finds it pleasing, as well as in agreement with the general conduct of the class and how students behave will be very happy to instruct that class in the future, according to the research by

Bandura. Their observations of other instructors' behaviour can subsequently be used to duplicate and reproduce the methods used by those teachers in the real world (Bandura, 1986).

According to the literature, SLT may be classified into three categories of thoughts. Observational learning is the procedure by which individuals learn through observing others in their environment. Moreover, cognitive processes are a major role in learning and are termed as intrinsically generated motivation or reinforcement in learning theory and neuroscience. Lastly, it highlights that learning does not necessarily result in changes in behaviour, but rather mimics the procedure of modelling. As a consequence, Bandura developed the term "observational learning" to characterize this method of learning, and he defined the qualities of efficient observational learning as entailing attention, retention, reciprocation, and motivation, among other features. Using experiments, He demonstrated that children catch up on and mimic the behaviours they observe in others. He discovered three fundamental theories of observational learning as a result of this procedure.

• It is possible to create a live model by using an actual person to show or play out a certain behaviour.

• A verbal instructional model, which includes behaviour descriptions and explanations.

• It is possible to create a symbolic model by using genuine or fictitious characters from books, films, television shows, or internet media to exemplify certain behaviours.

SLT holds that learners learn through observing individuals socially followed by imitation of patterned behaviour. SLT posits how people learn

through observing and experiencing the conduct of others as well its results. The choice is clear: either individuals learn to copy observed behaviour and reap the advantages, or they learn not to replicate a specific action and avoid the negative aftermath. Social learning theory is characterized by the reciprocal interplay of cognitive, behavioural, and environmental variables, and it is usually seen to connect the behaviourist and cognitive theories of learning (Pajares, 2004).

According to SLT, learning occurs most effectively in social circumstances when it is accompanied by observation, imitation, and modelling. At the time of its inception, social learning theory offered a challenge to the traditional assumptions of behaviourism as well as its anticipated limitations. Further diverging from the core beliefs of behaviourism is the emphasis placed on the significance of cognitive processes, which was previously overlooked in the central concepts of behavioural theories, as well as the promotion of the critical role played by cognitive methods in the processes of learning. It is the notion of Bandura that learning does not always present itself as an end product of direct encounters, but rather as a result of applying the rules of observation and imitation that serves as the cornerstone of social learning theory (Martinez, 2017).

This theory serves as the foundation for my research since students who engage in cyberloafing have models (some buddies) who they watch, mimic, and replicate in order to perpetuate their cyberloafing behaviours. The fact that such pupils participate in cyberloafing is a result of their having gone through the four steps of the modelling process (observation, attention, reproduction, and motivation). I believe that individuals especially students

have the ability to create ideas about how new behaviours such as cyberloafing should be performed by seeing others and then applying those cyberloafing ideas to themselves. This cyberloafing information is then recorded and stored in memory, where it is seen to be a plan to be initiated, either as soon as possible after an act has been seen or for later use on other instances in the future, as needed. The social learning theory is relevant in this study because the researcher assumes that cyberloafing behaviours are reinforced by behaviour intention.

Theory of planned behaviour

Originating in 1980 as the Theory of Reasoned Action, the Theory of Planned Behaviour (TPB) is a behavioural prediction model that attempts to forecast an individual's intention to participate in a given operation at a particular date and spot. Originally, the term was meant to refer to any and all behaviours that humans may control via their volition. The idea of behavioural intent is integral to this paradigm; behavioural motives are impacted by one's subjective evaluation of the dangers and incentives associated with the desired output, as well as one's mentality toward the likelihood that a specific behaviour will result in the desired result. Among other things, it has been used to better understand and predict a number of health habits and intentions such as liquor intake, tobacco consumption, wellness utilization, breast-feeding, substance abuse, and other behaviours. Behavioural success, as per the TPB, is built on both drive (intention) and talent (behavioural control). It makes a distinction between three categories of beliefs: Belief systems that are normative, behavioural, and control-related. The Theory is made up of six components that together describe a person's ability to regulate their actions.

- Attitudes- Essentially, this is the way in which people perceives the behaviour of interest, whether positively or negatively. It entails contemplating the ramifications of carrying out the behaviour described.

- Behavioural intention- Specifically, this relates to the variables that create some sort of ACT, with the higher the desire to undertake actions, the more probable it is that the act will be completed.

- Subjective norms- Majority of individuals'' ability to accept or disapprove of a behaviour is expressed through this viewpoint. It is all about a person's thoughts regarding whether or not his or her colleagues and other people who are key in his or her life have the viewpoint that they should engage in the activity.

- Social norms- Societal and culturally accepted norms refer to the laws that define a group of people or a wider cultural environment in this regard. Social values are said to be normative or conventional when they are administered to a group of individuals.

- Perceived power- This denotes the presence of elements that can either help or hinder a person's ability to do a project effectively. Such features are influenced by an individual's considered behavioural control, and this is influenced by their imagined authority.

- Perceived behavioural control- This relates to a person's sense of how simple or tough it is to carry out the targeted activity on his or her own. A person's impression of behavioural control changes in reaction to various events and acts, which causes their estimated behavioural control to alter based on context they find themselves in. Ultimately,

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the basis for this theory was expanded, culminating in a shift from the Theory of Reasoned Action to the Theory of Planned Behaviour.

TPB is a behavioural model that is frequently employed. People's behaviour may be understood better when we understand how they think. Since it argues that activity is prepared and carefully planned, the model anticipates purposeful behaviour (Ajzen, 1991). The TPB is a descendent of the TRA, which is a model that is related in many respects to the TPB in terms of functionality as per Ajzen and Fishbein (1975). After it was revealed that it is not always possible to regulate one's conduct since it is not fully purposeful, the theory was renamed to account for this. As a result, the concept of perceived behavioural control was introduced into the model, and the theory was renamed to reflect the addition of this concept. The Theory of Planned Behaviour states that each activity someone does is affected by three kinds of considerations: Behavioural beliefs (ideals about the likely result of skilled conduct), normative beliefs (ideals about other people's normative anticipations), as well as control beliefs (ideals about one's own power) (beliefs about the existence of variables that might allow or disallow the output of the actions) are all examples of beliefs). In addition to influencing attitudes toward a particular behaviour, behavioural beliefs may also influence perceptions of social pressure or subjective standards, and control beliefs can influence perceptions of a person's ability to control their behaviour. The stronger someone‟s desire to engage in the act in question, the greater the likelihood of favourable action or output, subjective norm, and perceived control.

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The Theory of Planned Behaviour uses a person 's mindset and perspective, as well as their imagined authority over their own behaviour and society's perceptual rules, to affect their behavioural intention, which ultimately leads to the behaviour or action. When one has a hostile perception about something and feels powerless over it, they are less likely to engage in or finish it. A person's incentive to engage in this activity will be negatively impacted if people of the community disapprove of the output. Based on their own ideas and values, an individual 's mindset and considered behavioural control might have a good or negative influence on their intent and behavioural act.

According to the theory, the desire to act is the most significant predictor of actual behaviour. Three elements impact a one's decision to perform in a given act: the person's reactions depending on their orientation, his or her perception of behavioural control, and his or her perception of subjective norms (Ajzen, 1991; Fishbein & Ajzen, 1975). When it comes to the consequences of a certain behaviour, in this example, cyberloafing during class, individuals' negative or positive judgments of the consequences are referred to as attitude (Ajzen, 1991). There are two types of evaluations of behaviour contained in attitude: instrumental evaluations (such as convenient or troublesome) and emotional evaluations (such as exhilarating or dull). Perceptual norms are defined as one¨s sense of societal influence to do or desist from performing a behaviour, as well as his or her incentive to adhere to that perception of social pressure (Ajzen, 1991). One's perceived ability to regulate his or her behaviour is measured by the seeming difficulty or ease with which they can complete a task (Ajzen, 1991). The TPB theory,

according to Ajzen (1991), should be improved and expanded with additional determinants that are theoretically defensible and provide a compelling measure of distinctive deviation in the data.

The theory (TPB) serves as a foundation for my research since it can be used to anticipate people especially students" mindset or motive to portray a certain action such as cyberloafing at a specified time as well as a specific location. Cyberloafing, for example, is an example of a behaviour over which students may have self-control. I believe that for students to engage in cyberloafing, they develop a higher desire to execute the cyberloafing behaviour and this makes it more probable for the cyberloafing behaviour to be completed.

The importance of behavioural purpose in this method cannot be overstated. Among other factors, views of the chance that the cyberloafing act would yield the intended result, as well as subjective assessments of the risks and benefits of cyberloafing, have an influence on students' behavioural intentions.

Conceptual Framework

The numerous principles forming the basis of the study are considered in this section. Concepts like observation, imitation, modelling, cyberloafing and academic performance were explained hereafter as the main variables of the study.

Cyberloafing

The term "cyberloafing" refers to the usage of web resources for personal purposes (Lim, 2002). Cyberloafing is a phrase invented by Lim (2002) to refer to the method by which one makes a decision to engage the firm"s internet for one"s own desires, and it was first used in 2002. Due to

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advancements in communication technology as well as the widespread availability of mobile phones in our daily lives, the scope of personal internet usage has grown beyond workplace Internet to any computing device during working hours, rather than just office computers. Consequently, cyberloafing activities may be conducted out on both personal computers and mobile devices. In addition to being active and engaged, paying attention in class, completing assignments, and taking tests, learners have a variety of other responsibilities. Each of these may be considered a learning activity in its own right. As technology improves, students learn new techniques for performing
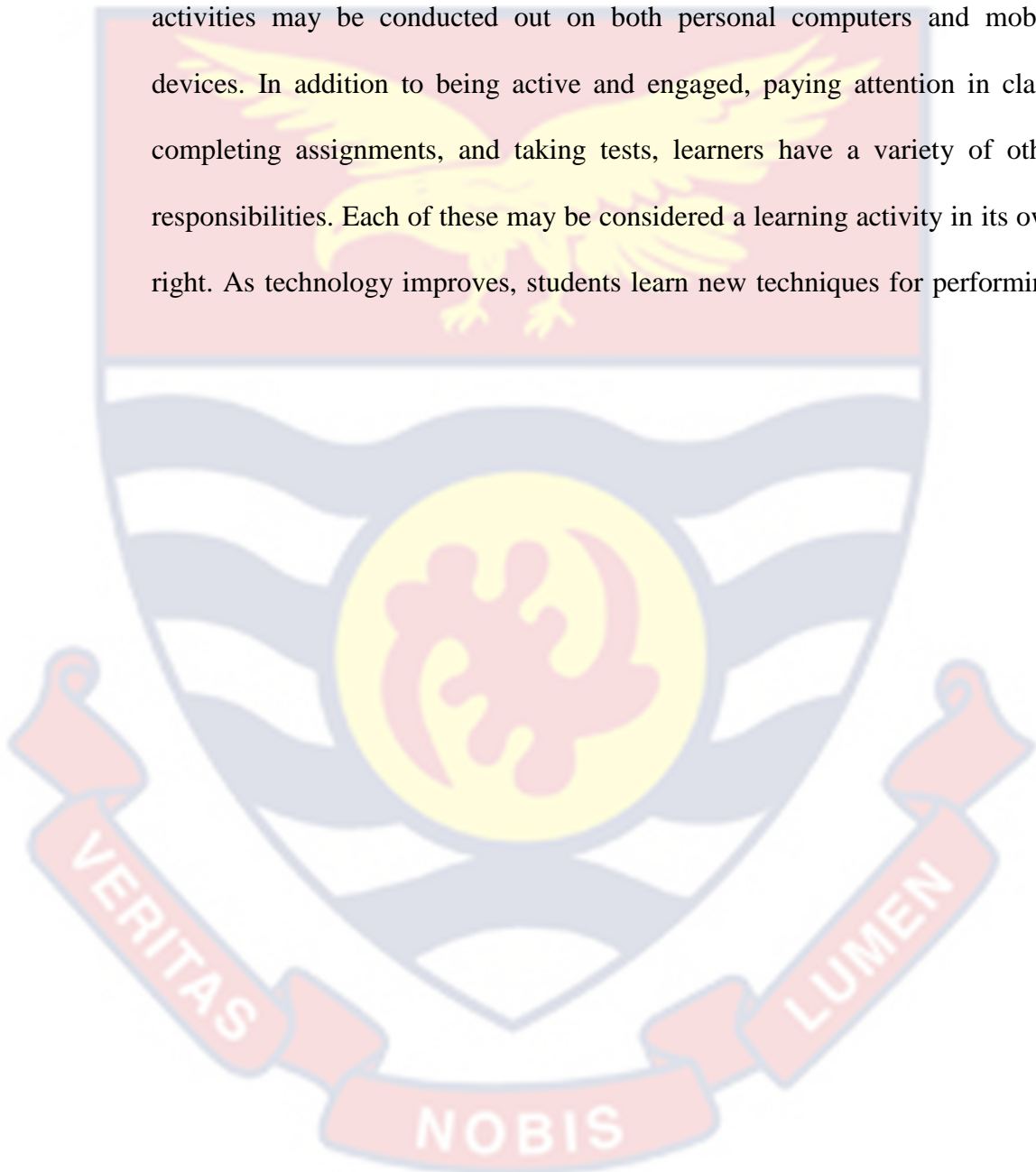
such tasks. During a class, instructors may assign online search assignments, and learners can perform research on a given topic, submit assignments, and contact with the teacher using their tablets, phones or laptops. Instructors may also use online search assignments to supplement their lectures (Ragan, Jennings, Massey, & Doolittle, 2014).

These are the most often used terms: cyberloafing, cyberslacking, and non-work-related computing, to name a few. When people utilize the internet service of their organization for unproductive activities during serious times, this practice has been likened to cyberslacking (Lim, 2002). The phrase "cyberloafing" refers to the act of squandering hours on the internet. Urbaczewski and Jessup (2002) coined the term "cyberslouching," which is also known as an improper style of using a computer (Guthrie & Gray, 1996), cyberloafing (Lim, 2002), and computing that is not associated with one‟s job, among other terms (Lee et.al, 2005). Unproductive hours spent on the web by employees is referred to as cyberslacking or cyberloafing, to put it in the simplest terms (Ugrin, Pearson, & Odom, 2008).

Lim (2002) was the first to characterize cyberloafing as individuals who use internet connection to engage in unproductive activities while at their place of employment. Currently, cyberloafing can be seen as any opportunity to utilize an internet-connected device or mobile device for non-job-related activities while on the clock at work (Vitak, Crouse, & LaRose, 2011). Cyberloafing has the potential to be a huge problem and a big impediment to the output of students and employees. There may be drawbacks to today's technology, despite its multiple benefits such as reachability and connection,

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that restrict and deteriorate aspects of our social life, as well as our psychological and physiological wellbeing (Rigely, 2014).

Cyberloafing encompasses actions such as e-shopping, surfing, utilizing apps for staying online, job seeking, sharing private mails, and obtaining information that is not connected to one's professional life. According to scholars, cyberloafing, sometimes known as cyberslacking, is a kind of workplace production deviance that takes place online (Lim 2002; Lim & Teo, 2005). Students' attention is diverted away from their responsibilities when they engage in these online activities (browsing and emailing) while at class during class hours (Lim & Chen, 2012). There are a few other names for non-work-related computers that may be found in the literature. "Voluntary on-line online behaviours during working hours using any of the organization's resources for activities outside current conventional job/work requirements" is what personal web usage (PWU) is described as by (Anandarajan & Simmers, 2005). Individuals especially students that engage in inappropriate behaviour, engage in unproductive activities, or post public comments when surfing the net while using the internet service of their school are all examples of internet abuse in the society (Young, 1996).

An additional broad concept, troubling online activity includes, among other things, online habit, web addiction disorder, and unhealthy internet usage (Kim & Bryne, 2011). Because of the prevalence of internet obsessions, such as those related to online entertainment and betting These are diagnosable psychiatric disorders like any other addictions, they are becoming a major source of worry in the context of the rising cost of cyberloafing. Internet addiction disorder is a term that has been used by various scholars to

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describe the excessive use of the internet (IAD). This type of behaviour includes things like reading e-mails during class hours, chatting online during class hours, accessing the Internet during class hours, and other similar activities. When those types of behaviours were seen, Arabaci (2017) characterized them as cyberloafing, which he described as the usage of the web and laptops for non-school activity while attending a lecture.

Cyberloafing, also known as output deviance, is a type of organizationally oriented deviant behaviour that can span from small (checking personal email) to serious (downloading illegal music, online betting) in terms of its impact on the organization (Blanchard & Henle, 2008). Non-productive computer usage is defined as when someone uses a laptop during work times for activities that are not productive but can be harmful to the school or place of work, such as shopping, chatting, or gaming, but are not detrimental to the institution"s bottom line. This is referred to as unproductive computer usage when a student conducts themselves in a behaviour which opposes the school"s prescribed regulations, including distributing or upload pornographic content or producing pc virus (Askew, 2010).

Observation, imitation and modelling

The famous Bobo doll experiment, conducted by Bandura in the 1960s, demonstrated, according to Lou (2013), that toddlers learn and mimic the behaviours they observe in other people. When children were present during

Bandura's tests, they noticed an adult slapping a Bobo doll in the face. When they in the subsequent times had been permitted to play with the Bobo doll in a different room, they started acting aggressively, and they began to replicate the behaviours they had observed before. Imitation Processes are also characterized by the ability to reproduce a particular behaviour or action. It is expected that a child who witnesses a particular behaviour on a regular basis will be able to copy and duplicate it at some point. Infants learn quickly by seeing and imitating their caregivers. Imitation is a technique for young children to learn from their elders and obtain information about the world. When it comes to learning new skills, habits, and customs from cultural professionals, imitation is a strong tool for young people to use. In comparison to trial-and-error learning (as described by Piaget), imitation is both faster and safer (the type of learning emphasized by Skinner).

According to Meltzoff (2007), human infants' ability to imitate their parents' actions is correlated with adults' motivation to teach their offspring as youngsters. When an adult instructs an infant on something to be done on purpose, it goes unnoticed or perhaps not something new by others. Adult modelling and baby imitation are the foundations of human civilization. Children learn about the physical world by imitating what they see. The use of imitation by children is for societal functions such as sharing, interaction and belonging to groups, among other things. There are contrasts between what should be copied in order to socially engage another person and what should be learnt in order to do a specific important duty.

Adults are not dumb clones of children. They have the freedom to choose when, what, and who they want to aspire to be like. Developmental

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psychologists are now investigating how children use imitation control. The findings are fascinating because they suggest that youngsters do not always copy what they see around them. When compared to adult imitation, childhood imitation is characterised by a high level of selection, adaptability, and control. Physical problem-solving behaviours typically include the manipulation of the inanimate world in order to achieve a solution. Students in social circumstances are more subjective and standard in their behaviour. The technique of imitating new societal behaviours is commonly utilized in dialogue to create and sustain balance e.g. (a special "handshake"). Important cultural rituals may include random behaviours that only members of the in-group are aware of, which helps to build connection and cohesion among members of the in-group (Meltzoff, 2007).

According to Bandura (1977), there are four key elements that make up observational learning, or modelling in my research include:

- Attention – Students must pay close attention to the modelled behaviour so that learning will occur after being witnessed. Both the one who observes and the model have traits that might impact how much attention is paid to the modelled actions. A student or learner who is drowsy, unwell, or otherwise distracted, for example, would most likely not be as attentive as one who is totally focused on the model who cyberloafs.

- Retention – Students who have the desire to cyberloaf must recollect the mimicked behaviours so that they can learn from the action (cyberloafing) which has been witnessed. The inclusion of images and

detailed language can aid recall and memory, increasing the likelihood that the observer will replicate the patterned behaviour.

- Reproduction – At this point, the observer (learner)converts the patterned behaviour into their own personal actions. To recreate the observed behaviour, the model's stored pictures and words must be converted into a reaction that matches the expected pattern. The ability of the one observing to reproduce the new behaviour (Cyberloafing) improves as he or she performs it.

- Motivation – Replicating observed behaviour (cyberloafing) needs some motivation. Learners may not be able to copy modelled behaviour unless there is a strong urge to act.

Sources of Cyberloafing

Individual Factors

Researches on which kinds of persons may engage in cyberloafing has come up with no conclusive findings so far (Vitak, Crouse, & LaRose, 2011). However, attitudes as well as perceptions toward cyberloafing and the usage of web, personality traits, lifestyle as well as being obsessed with the web motive students to engage in the act of cyberloafing. Cultural standards, and

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individualized codes of conduct regarding internet use and cyberloafing are also determinants of cyberloafing behaviour.

Perception and Attitudes

It was observed that people especially students who had favourable conducts toward laptops were better inclined to use personal devices for private matters, and there was a link between good sentiments regarding cyberloafing and the act of cyberloafing (Liberman, Seidman, McKenna & Buffardi, 2011). Employees who participate in significant cyberloafing recognize that their behaviour is aberrant and unlikely to be tolerated at work, according to the study. Individuals that practice moderate cyberloafing might not feel they are engaged in deviant behaviour Blanchard and Henle (2008) posit. Cyberloafers were better able to be part of cyberloafing than those who thought that their Web use was advantageous to their job performance, according to the research of (Vitak et al.,2011).

Personal Traits

The actions of web users are influenced by different kinds of psychological intents as Johnson and Culpa (2007) assert. Students" internet usage behaviours may be influenced by personal traits such as isolation, timidity and being shy, self-control, locus of control and prestige. It has been shown that when someone is very shy, there is a decrease in their self-concept. Those people who are stronger in their belief in the overwhelming power of others do not have a higher reliance in determining their own course in life. There is a more likely occurrence for such people to get addicted to the Internet (Chak & Leung, 2004). In a range of unlawful behaviours, such as cyberloafing, self-control have a significant impact on the intent of people to

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engage in those activities. It appears that those who struggle with self-control possess a higher track record of cyberloafing (Ugrin et al, 2008). Job misbehaviour has been found to be more prevalent among those who have a weak level of self-control, according to research (Restubog et al., 2011).

When using the Internet, those who have a greater level of external locus of control (meaning they feel their future is in the grasp of others) and those who have poor self-esteem reported having less consciousness (Restubog et al., 2011). This had an effect on their use of the web at work. People who are more focused on the outside world or who feel that strong persons or chance have an effect on their life have a harder time controlling their web activity than others. (Chak & Leung, 2004). Because of the widespread use of (ICTs) in the workplace, small amounts of cyberloafing may be associated with impulsivity and lack of behavioural control among students (Weatherbee, 2010).

Habits and Internet Addiction

Situation or behaviour cycles that are or have been automatic in reaction to specific environmental cues and occur without the need for self-instruction, cognition, or decision making are referred to as habits. The link between media consumption and cyberloafing appears to be crucial in predicting these behaviours. When there is a high level of internet addiction, it is possible for students to engage in online abuse (Chen, Chen, & Yang, 2008).

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Impacts of cyberloafing

Garrett and Danziger (2008) assert that it is becoming more common in institutions such as schools to engage in the act of cyberloafing. There is sufficient data to infer that such behaviourcosts firms a considerable amount of money and human resources. Sanctions, dismissal or attrition of employees, breaches of organizational secrecy and bad publicity, or anonymity, individual and collective guilt and accompanying legal expenses, as well as dollars" worth billions lost in revenue, are just a few of the negative repercussions that businesses face as Weatherbee (2010) posits. Cyberloafing may lead to decreased productivity and wasteful network resource utilization, making a company not competitive as a result of the practice (Liberman et al, 2011). Cyberloafing may also cause difficulties with information system security and basic operation, including bandwidth congestion, virus invasion, and work postponement, among other things (ZoghbiManriquedeLara, & OlivaresMesa, 201).

When it is in the best interests of both employees and the firm, cyberloafing may be advantageous. When it interferes with an employee's ability to be productive, it may be detrimental. Many scholars feel that cyberloafing is inefficient and puts the firm at risk of legal action, and that it should be avoided. Alternatively, Other scholars disagree that cyberloafing is always unpleasant or even inappropriate. Their argument is that the web may provide more respite from work, resulting in more creativity, mobility, and the advancement of educational opportunities (Blanchard & Henle, 2008).

Cyberloafing is detrimental and entails a kind of deviance among people who work insofar as it displays voluntary behaviour that violates

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fundamental organisational norms and has a negative impact on the well-being of a firm, its employees, or both (Lim, 2002; Beugre & Kim, 2006). Additionally, consuming distracting content during tasks because of cyberloafing diminishes the cognitive resources that are vital to accomplish job responsibilities on time (Rajah & Lim, 2011). Cyberloafing again causes accessibility of network in institutions, leading in security concerns and the vulnerability of harmful malware to infiltration (Kay, Johnson, Chern, & Kangas, 2009).

Using a mobile phone during class to send text messages is a prevalent form of cyberloafing in academia, and it is impossible to ignore or interrupt someone doing so. In order to collect experimental evidence on the effects of messaging even when in school, Chaklader and Bohlander (2009) encouraged college students to answer to zero, one, two, or three text messages while watching an informative DVD. Students who received two or three text messages did substantially worse on tests, demonstrating that texting had a detrimental effect on their potential to concentrate on and retain material as Chaklader and Bohlander (2009) proposes. Rosen, Lim, Carrier and Cheever (2011) discovered that recall for a 30-minute recorded lecture was impaired in the high text message classification, which sent or got an average of 19 SMS throughout the course, contrasted to the low text message group, which got fewer than two. Other learners and the tutor may be intrigued by the learner who is communicating in conjunction to the texting individual as Tindell and Bohlander (2012) assert. According to these findings, cyberloafing can have a detrimental influence on classroom learning.

Additionally, messaging on cell phones may be an intellectual barrier for children, as can laptops, which can serve as a distraction from studying in the classroom. Learning participation can increase once learners are exposed to desktop computers in the classroom because they actively participate in education, particularly when the classroom computers limit access to websites with no intellectual benefits; even so, computers in the lecture hall (possessed by learners and with no constraints on Web activity) can lead to less commitment because of better connectivity to information (Skolnik & Puzo, 2008). Research concentrated only on consequences or end results of laptop multitasking and came to the realization that computer usage impairs students' capacity to study [or focus] in the class (Hembrooke & Gay, 2003).

Strategies to tackle Cyberloafing

Organizational cyberloafing is becoming increasingly prevalent in businesses now as per a statement by Lim and Teo (2005). According to research on the expense of cyberloafing, institutions like schools should restrict their students' cyberloafing behaviour. One key issue is to understand both the negative effects of cyberloafing on schools as well as the beneficial end state of cyberloafing among learners. Therefore, it is critical to have procedures for monitoring and managing cyberloafing in schools. Individuals" misbehaviour can be controlled using two major techniques: cyberloafing intrinsically focused self-regulation tactics and extrinsically generated techniques that are coercive in nature, in which peoples' behaviour is reinforced by external events in their environment. Cyberloafing intrinsically focused self-regulation strategies are used to control individuals' misbehaviour

(Lara and Mesa, 2010). It is based on a person's inherent desire to follow norms that the self-regulatory approach was developed (Ugrin et al, 2008).

In contrast, extrinsic motivational theories of individuals" behaviour are linked to coercive tactics, in which people react logically by weighing the benefits and drawbacks of a certain action (ZoghbiManriquedeLara, & OlivaresMesa, 2010). To combat cyberloafing, many organisations utilise a variety of strategies, such as training staff, changing computer usage policies, implementing monitoring systems, and enforcing compliance through fines. These methods should be used in conjunction with one another in order to achieve success in managing activities.

Educating and informing

The effectiveness of every method depends on how effectively it is handled and how well it is translated into a greater knowledge or perception of its goals (Chen, Chen & Yang, 2008). When students know the dangerous repercussions of what they are doing, the tendency to cyberloaf will be at a lower level. As a result, students can regain some self-control simply by becoming aware of the extent to which they are participating in a regular action and connecting the output of that action to the possibility of negative consequences such as unsatisfactory student ratings and missed deadlines as stated by Vitak et al (2011).

Computer use policies

For one to limit the negative impacts of cyberloafing while retaining the good effects, school heads should create and execute explicit guidelines and procedures controlling the usage of the web at institutions (Beugre & Kim, 2006). An Internet policy that is clearly established and educates

employees of the potential penalties may be effective in reducing employees' intents to abuse the Internet (Woon & Pee, 2004).

Monitoring

Students' cyberloafing behaviours in the school may be combated by technological tracking devices (Chen et al., 2008). Cyberloafing was shown to be decreased by monitoring methods that track or prohibit access to websites, as well as monitoring emails. These are much more helpful on students who are prone to cyberloafing (Ugrin et al, 2008).

Punishment

Standard precautions do not deter cyberloafing unless they are accompanied by serious repercussions for students who engage in it (ZoghbiManriquedeLara, & OlivaresMesa, 2010). Effective cyberloafing prevention, according to Blanchard and Henle (2008), requires that "monitoring activities be followed up with disciplinary actions." It has been demonstrated that learners who know that other learners are being penalised for cyberloafing are less inclined to engage in the practise themselves (Ugrin et al, 2008). When it comes to punishment, though, it is useless. There must be a large amount of control systems monitoring for indicators of cyberloafing for efficiency (ZoghbiManriquedeLara & OlivaresMesa, 2010).

Academic performance

Learners' study habits, as defined by Abid (2006), are the most important factor in their academic performance. Learning routines refer to a pupil's study method, which might be methodical, successful, or useless. A consistent measure of a student's school experience is his or her academic performance. Academic achievement at various levels of schooling has been

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measured throughout time in terms of examination outcomes at various levels of schooling (Kyoshaba, 2009). Academic success has been defined and described by a number of academics. Further, they stated that these objectives are assessed by the results of continuous evaluations or examinations. According to Annie, Howard, and Midred, academic accomplishment is also a determinant of educational success in general as per Arhad, Zaidi and Mahmood (2015). Specifically, they stated that it displays and evaluates the extent to which an institution, its teachers, and its learners have achieved their academic objectives.

In the opinion of Yusuf, Onifade, and Bello (2016), academic performance is defined as the ability to monitor and observe changes in a student's behaviour through time. It is made up of a student 's achievement on evaluations including group work, mid-semester examinations, class tests, mock assessments, and end-of-semester examinations, according to the researchers. As according to Kyoshaba (2009), a student's academic accomplishment is determined by how well they do on examinations, assessments, and course work. A variety of factors influence children's academic advances and educational performance. These include age, gender, staff who teach, students' education, guardian''s social economic standing, students' living location, and the medium of instruction used in schools, among other considerations.

Maric and Sakac (2014) assert that students' factors that have an influence on their academic achievement may be classified into two categories: internal variables and social variables. In addition to interest in a subject's substance, internal happiness, and desire, the researchers found that

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other factors that influence students' academic performance include motivation and desire. Socioeconomic status and monetary gain were included as social factors in the study. According to Dev (2016), the degree to which a student is interested in a subject has an impact on their academic achievement in that discipline. A pupil's approach toward education and love for studying, according to (Kpolovie, Joe & Okoto, 2014) has an influence on his or her educational attainment.

"A student's educational performance is mainly reliant on the social status of the student's parents/guardians in society," (Graetz, 1995) observed. Learners" academic attainment is mostly based on the social standing of the parent/guardian in society. Considine and Zappala (2002) discovered that a learner"s exam performance is positively impacted by the money and social position of his or her parents. Several studies, such as the Minnesota measures (2007) have found that achievement in education of graduate learners impacts the effectiveness of higher levels of learning. Students' previous academic achievement, according to Bratti and Staffolani (2013), is the most useful predictor of future achievement, indicating that the stronger the student's prior performance, the better he or she would do in future attempts of educational attainment.

In this investigation, learners" academic performance will be measured in terms of GPA to find out if their cyberloafing activities have an effect or impact on their academic performance.

Conceptual Framework

Cyberloafing in this investigation as a term describes all activities of students which encompass access to the web at school for private use while acting as serious learners. This activity by students involves observation,

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imitation and modelling. This is due to the fact that students observe, imitate and model their counterparts and engage in cyberloafing. Since the actions of these students involve taking their phones or electronic devices for their own non-educative purposes rather than using them to learn, it can have a significant impact on their academic performance. Thus, Cyberloafing activities which includes viewing YouTube videos, writing private emails, and consuming a significant amount of time using social media etc, may affect the academic performance of students.

Empirical Review

The empirical review focuses on recent studies on the subject (cyberloafing activities among university students: their impact on academic performance). The study's aims guided the examination of empirical literature. Recent literature (from 2015 to 2021) was consulted in order to give up-to-date data on the topic under discussion.
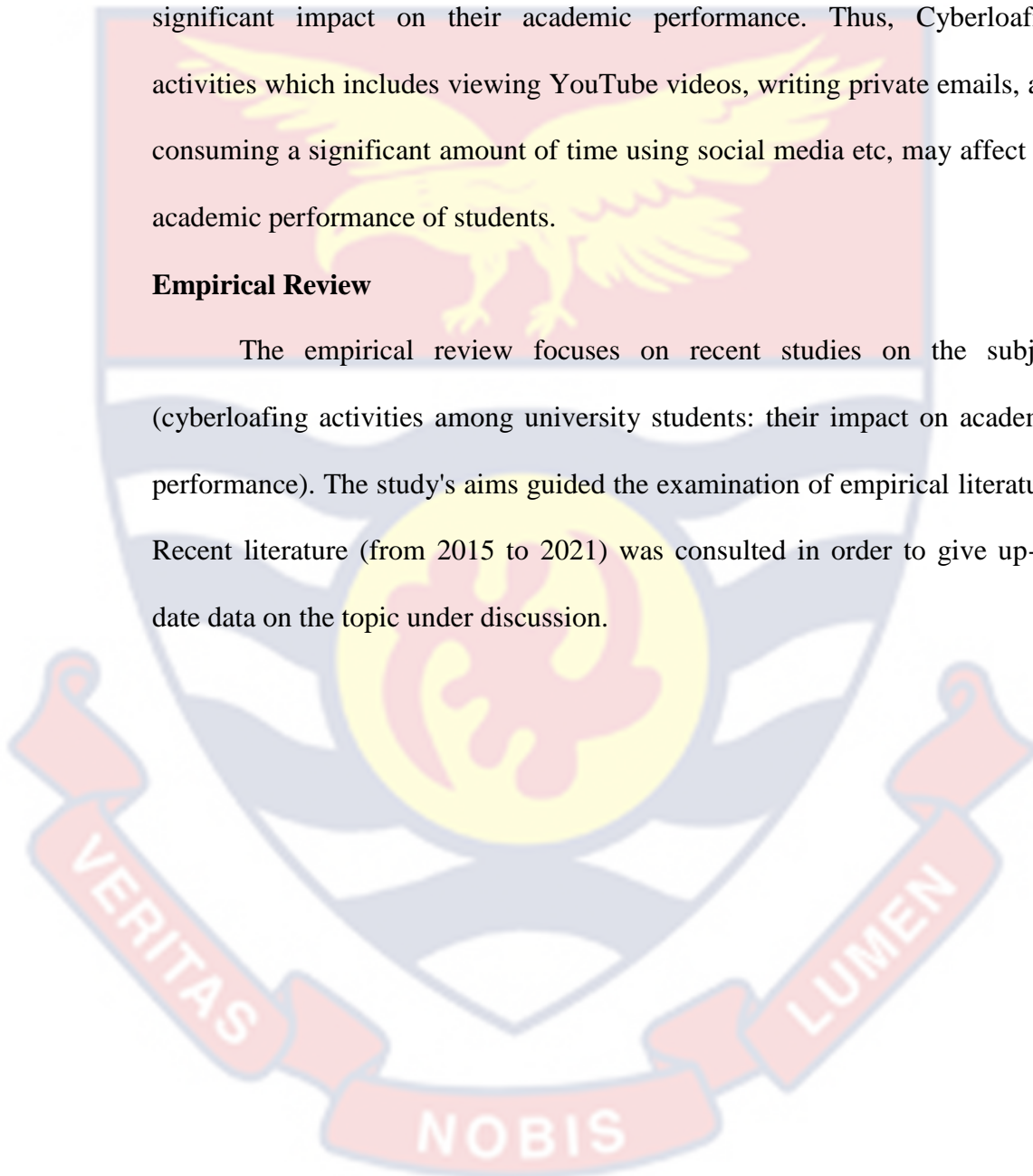
Types of cyber loafing activities students engage in

Here, investigations on the different types of cyberloafing activities which students engaged in were reviewd. The incidence of cyberloafing among university students appears to vary depending on the study. For example, cyberloafing behaviours are low (40 percent) among 282 high school students in Turkey (Baturay, & Toker, 2015), but moderate (50 percent) among a total of 272 university students in Turkey (Baturay, & Toker, 2015; Toker, & Baturay, 2021). Three primary categories of social loafing among students emerged from a review of the research. These are socialisation (Baturay, & Toker, 2015; Knight, 2017; Dursun, Donmez, & Akbulut, 2018; Toker & Baturay, 2021), news follow-up (Baturay, & Toker, 2015; Varol, & Yildirim, 2019; Toker & Baturay, 2021), and private tasks (Baturay, & Toker, 2015; Varol, & Yildirim, 2019; Toker & Baturay, 2021).

Socialisation

Researchers Baturay and Toker (2015) discovered that 46.9 percent of high school students in Turkey used the internet during class time for socialising reasons, with advanced-expert users exhibiting greater levels of cyberloafing behaviour than novice-intermediate users. More people using the web often cyberloaf more than those who use it less frequently. Additionally, people who have spent nine years or more online are more prone to indulge in cyberloafing actions among high school students, according to the study. While this is useful in understanding the behaviours of learners at the college, most high schools in Ghanaian culture do not allow learners to operate with their cellular devices or computers during lessons, which is understandable. It

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is possible that the results of this investigation do not yield a sufficient explanation for the cyberloafing habits of university students.

Knight (2017) found that among East Carolina University undergraduate students (n=141), 30.5 percent used Facebook, 39.7% utilised Twitter, and 14.1 percent did not use a cell phone to cyberloaf during class. In addition, 27.7% of students utilised Facebook while cyberloafing on a laptop during class, whereas 56% did not. In terms of cyberloafing, the cell phone appears to be the most popular gadget. The survey also highlighted the kind of social media sites students use to socialise during class. The geographical variations between the study of Knight (2017) and the current research may be substantial. The current study seeks to discover any differences between Ghanaian and East Carolina University undergraduate students.

According to Koay (2018), the top three classroom cyberloafing behaviours include talking with friends, liking intriguing postings, and monitoring friends' posts. Furthermore, pupils appear to be more interested in social media websites than in other cyber pursuits in the classroom. This backs up the conclusions of (Baturay, Toker, & Knight, 2015; 2017). Furthermore, according to Koay's (2018) study, more participants claimed they dont access Twitter in the lecture, while the others said they do so occasionally or frequently. Thus, there should be extensive investigations in order to get a clearer picture Ghanaian undergraduate students' adoption of social networking sites such as twitter. While this may be true in Malaysia, it may not be true for Ghanaian students. More research is required to appreciate Ghana's setting.

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Accessing online resources was the most common cyberloafing type among 1856 preservice information technology instructors in Turkey, followed by sharing and real-time updating (Dursun, et al., 2018). Similarly, Toker and Baturay (2021) showed that socialising was the most prevalent kind of Cyberloafing among university students in a computer lab. 63.2 percent of 272 students from a Turkey university agreed. That is sufficient information on Turkish students. It is clear that Turkish students use the internet to socialise. Again, it is important emphasising the geographical and sample variations (i.e., usage of preservice information instructors and computer laboratory environment) between these two Turkish research. The current investigation is required to comprehend Ghanaian undergraduates' cyberloafing habits.

News follow up

A recent study by Baturay and Toker (2015) found that 45.2% of Turkish high school students use the internet to research current events. University students reported similar results. Varol, & Yildirim (2019) found that 95% of 184 learners at a public tertiary institution in Turkey checked email, the rest looked up course materials, and others also read all that entailed in the news. Precisely, among those who looked through their emails, searched for information regarding other courses, or read news during hours for lab, over 45 percent did so frequently. Participants also read blogs and columnists' perspectives. Toker and Baturay (2021) discovered that 52.6% of Turkish university student participants engaged in internet loafing to keep up with news. This was the second most popular sort of cyber loafing after

socialisation. Again, the geographical and sample disparities between these two studies conducted in Turkey are worth mentioning.

Personal business

Overall, 33.6 percent of participants reported using cyberloafing for personal business, according to Baturay and Toker (2015). According to Knight (2017), 14.9 percent of learners engaged in buying online, 88.7% engaged in text messaging, 13.5 percent either streamed videos or stored music, 14.2 percent used Twitter with their cellular phones and 5.0 percent engaged in gambling. Visiting gambling sites, online gambling and buying or shopping online are the three least popular cyberloafing activities among Malaysian undergraduate students, according to Koay (2018). Downloading-related activities, on the other hand, are less common among students in the classroom since downloading songs, movies, or apps for mobile devices use a lot of bundle or data and this is cumbersome as well as exorbitant for learners. Dursun, et al. (2018) also discovered that gaming/gambling was the least popular cyberloafing activity among 1856 preservice information technology instructors at Turkish public institutions. Other activities that university students in Turkey engage in during classes include downloading files, visiting social communities, visiting discussion sites, visiting sport sites, shopping, finding a job, online banking, visiting auction sites, arranging travel plans, and visiting chat rooms, according to Varol and Yldrm (2019). Toker and Baturay (2021) discovered that 41.6 percent of Turkey university student participants engaged in cyber loafing for personal business purposes. However, this was the least common kind of cyber-lounging among students.

From the above studies, personal business involves other activities that exclude socialisation and news follow-up. Once again, it is worth noting the geographical differences, as well as the differences in sample of these studies.

Factors that influence students to engage in cyber loafing during lectures

This aspect of the empirical review looked at some reasons students engaged in cyber loafing activities. These factors were grouped into instructor related factors (Dursun, et al., 2018; Varol & Yildirim, 2019), content related factor (Varol and Yildirim, 2019), student related factor (Dursun, et al., 2018; Toker, & Baturay, 2021), and environmental related factor (Varol & Yildirim, 2019).

Instructor-Related Reasons for Cyberloafing

Dursun, Donmez, and Akbulut (2018) discovered that classroom management and teaching skills were the main factors for cyberloafing. In addition to communication and motivating skills, instructional skills encompassed the instructor's area competence and methodological repertoire. The lecturers' field knowledge was a great advantage. Students tend to cyberloaf when teachers lack topic knowledge/expertise. The methodological repertoire of the one teaching was also vital. Failure of teachers to pick the best teaching technique for the subject led to student cyberloafing. Participants emphasised the necessity of motivating components and interactive techniques for managing the class. Not being able to engage and motivate students led to cyberloafing. Participants confessed seeking novelty. Educators' verbal interactive abilities (e.g., pronunciation, speech, tone, and response) were noted also in answers. Participants' complaints regarding teachers' academic activities were startling. Participants tended to engage in more cyberloafing

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once professors abandoned their teaching obligations to focus on academic activity. This opens the door for criticism of teacher education. Classes on classroom management and communication are rather restricted despite the emphasis on instructional design and field knowledge.

Moreover, most of these courses focus on theory rather than practise, leaving new instructors powerless in the face of student misconduct. Under the instructor theme, Varol, & Yildirim (2019) found five reasons for cyberloafing: pedagogical expertise, classroom management, personality qualities, subject knowledge, and communication abilities. Concerned about not employing various educational techniques, teachers' pedagogical competence was emphasised. Also, when teachers teach directly, pupils become bored and look for other ways to occupy themselves. Also, 7% of interviewees said a content-illiterate instructor would lead them to cyberloaf. Personal characteristics of an instructor may also impact instructional efficiency, leading in cyberloafing, however this was only acknowledged by 5% of participants.

Content-Related Reasons for Cyberloafing

Specifically, Varol, & Yildirim (2019) said that when it comes to course material, participants' primary complaints were regarding the content itself (47 percent). Students have specifically identified some course content as not actively engaging or other times unneeded as a reason for their cyberloafing behaviour.

Student-Related Reasons for Cyberloafing

Dursun et al., (2018) discovered a second motif for cyberloafing: it was connected to the students themselves. The majority of these causes were

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well-known psychological problems associated with excessive ICT use. Participants admitted that they used cyberloafing largely for social networking, which met their sociability and communication requirements. It is reasonable to argue that the tempting nature of social networking diverted students' attention away from courses and toward convenient networking/communication. The flip half of this interaction challenge is the desire to remain current just like other people. Fear-of-missing-out (FoMO) is a relatively recent condition characterised by an insatiable need to stay connected to what others are doing. FoMO, as asserted by (D'Arcy & Devaraj, 2012), is a global worry that others are having enjoyable experiences that the individual is missing out on.

Additionally, they linked FoMO to decreased need fulfilment, mood, and life satisfaction. FoMO was evident in several student replies, including "Social networking is becoming an addiction." Thus, the person is urged to constantly monitor [social media platforms]. Another scenario is like, "Once you become addicted, you must constantly check [your social network]." Additionally, participants showed confidence in their ICT literacies and multitasking abilities. According to one participant, they were able to still move in line with their counterparts and their everyday duties without experiencing any fear of failure: "In summary, I was able to complete my personal tasks in addition to the class activities." I made an attempt to live up the demands of my lecturer."

A different participant, on the other hand, expressed concern about inflated assumptions as linked to technological fluency in ICT usage among learners. Such desires expose youngsters to dangers such as being addicted to

technology and predisposing them to technology-related hazards. One of the most often reported reasons for cyberloafing was unfavourable sentiments about the lesson or teacher. A participant admitted to having personal issues with the teacher and subject matter (e.g., a lack of preparedness and an inability to grasp the material), which led to cyberloafing.

Varol, and Yildirim (2019) illustrate the major and sub-themes relating to students. Students expressed little or no likeness for certain courses or, on occasion, bias regarding a particular subject. Additionally, students reported that cyberloafing occurs occasionally as a result of inattention to a course. Additionally, if students are uninterested in the course or its material, they divert their focus to something else that is more pressing at the time. Additionally, participants stated that if students say that they dislike the course or feel they will fail, they will not pay attention to the teacher or really desire understanding the subject. Toker and Baturay, 2021, found factors that contributed to the explanation of cyberloafing behaviour. Learner amotivation ("lack of motivation"), instructor standards based on the act of cyberloafing and student perspective toward cyberloafing. When learners improved their online talents by a new level (e.g., from beginner to intermediate, or from advanced to expert) while leaving other factors constant, their cyberloafing behaviour ratings climbed by 3.319 points.

If all other variables were kept equal, a one-point increase in teacher respect for students resulted in a 0.698-point drop in learner cyberloafing activity. In contrast, an increase of one point in the instructor norms score, suggesting A 0.466-point increase in undergraduate cyberloafing scores was linked to a higher sensitivity for behaviour unrelated to class duties. Improved

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cyberloafing was also connected to increased school performance. Having other factors kept unchanged, a one-point increase in learner engagement was linked to a 0.456-point rise in student cyberloafing involvement. Amotivation bore an impact on cyberloafing, while other forms of motivation (internal, introjected and integrative) had no impact.

Environment-related reasons for cyberloafing

Varol, and Yildirim (2019) asserted that students who realized the possibility of having opportunity on the net whiles class is ongoing led to them cyberloafing, according to 19% of respondents. Students stated that when the Internet is available, their desire to listen to teaching drops. Another point of contention was the size of the classroom. Congested classrooms impair the instructor's ability to regulate the classroom, allowing pupils to cyberloaf.

Some possible solutions to the challenges of cyberloafing

This section provided perspectives on some of the possible ways to reduce cyberloafing behaviours. These solutions were discussed in relation to the factors that were identified to be the causes of cyberloafing among students. These sub themes include; instructors related solutions (Varol, & Yildirim, 2019; Akgün, 2020), Content related solutions, Student related solutions and environment-related solutions (Varol, & Yildirim, 2019).

Instructors related solutions

Varol, & Yildirim (2019) said that Turkish university students place a high premium on teachers' pedagogical competence as a barrier to cyberloafing. This requires instructors to indulge or partake in programmes for their professional development to have a better understanding of various teaching styles and the efficient use of resources. According to Akgün (2020),

professors submitted a variety of recommendations to keep pupils from actions related to cyberloafing during classes, and several themes were developed in response to such recommendations. "Giving Seminars" is one of them. Their opinion was that they should educate children about the usage of technology and conduct seminars in schools. "Course/Course Topic" is another option. In this regard, their consensus was to develop a course on the aware and proper technological utilization to incorporate the subject as a topic in an existing course and stress its relevance. Concerning "Warning/Creating Public Service Announcement," an example of instructors' perspectives was that making general service announcements to promote sensitization or raising public awareness about the proper usage of technology may be accomplished through warnings. Regarding the "Family Effect," instructors claimed that a child's duty begins with his or her relatives and that people who are related to the pupil must exercise a state of control within the parameters of specified punishments and collaborate with the instructors of the learners.

Course content related solutions

Varol and Yildirim (2019) discovered that participants' suggestions for preventing cyberloafing behaviours related to course content included emphasising giving additional time for practice rather than attending class (9 percent), urging teachers to properly communicate course objectives (12 percent), and selecting suitable content (26 percent).

Student related solutions

Varol and Yildirim (2019) went on to identify two particular remedies to these concerns that affect pupils. Both student preparedness and being aware of one's own duties are important aspects of being a good citizen. With

regard to learning opportunities offered by instructors, some students think that it is their decision whether or not to take use of them. So, everyone must be aware of their own duties, at the very least in order to concentrate on the course material. Additionally, students must arrive at class motivated to participate in the discussion at class.

Environment-related solutions

Twenty percent of participants suggested shutting off the computers or turning off the Internet as a solution (Varol, & Yildirim, 2019). Additionally, Varol and Yildirim (2019) reported that 15% of participants indicated classroom sitting design as a method for reducing cyberloafing. Several students stated that monitors must be clearly visible to teachers in order to reduce the willingness and capability to cyberloaf. In addition, reducing the number of pupils in the classroom may help to avoid cyberloafing.

Impact of cyber loafing on student academic performance

Any event that takes learners away from meaningful tasks during the course is considered to disturb their focus, demoralise them, and lead to disciplinary issues (Arabacı, 2017). However, in their study of 287 undergraduate students, zcan, Gökçearslan, and Yüksel (2017) discovered that there was no link between students' cyberloafing habits and their willingness to succeed in academics. Because of this, it is possible that a student's drive to study has little to do with his or her internet browsing habits.

Wu, Mei, and Ugrin (2018) surveyed 1,050 undergraduate pupils from a major Chinese university on their in-class (N= 548) and out-of-class (N= 502) cyberloafing habits, which they related to their academic performance. According to the test results, outside class cyberloafing shows an inverted U-

shaped connection with academic achievement. According to the test results, in-class cyberloafing has a detrimental association with academic achievement. The outcomes corroborate the claims that cyberloafing is a negative diversion in the class, but that when used in moderation outside of the school environment as a medium of effort recuperation and stress relief, it may be useful.

The influence of cyberloafing on student academic achievement has been studied by employing both quantitative and qualitative methods. While the previous studies in this area used a quantitative method (zcan et al. 2017; Wu et al., 2018), Akgün (2020) used a qualitative approach to investigate this phenomenon. Akgün (2020) discovered unfavourable perceptions of the respondents concerning the impact of utilising ICT during programs on academic and learning success of learners using a qualitative method using instructors as a sample. The majority of instructors described "Negative Effects" as negative consequences of utilising ICT during classes without their authorization. Thus, instructors exemplified "disinterest in the Course or Lesson" as a consequence of cyberloafing such that students may have academic problems as the course (or lesson) progresses.

As per Akgün (2020), the central topic of "Positive Effects" was handled in two sub-themes: "Facilitating Learning" and "Communicating with Peers". The central idea of "Positive Effects" popped out of this viewpoint, and it was handled in this sub-theme: "Facilitating Learning" which is "finding a specific element connected to a concept in delivering the course by investigating the topic on the net." Teachers pointed out that while learning anything on the net, learners who do not have access to the net can benefit

from the cooperation with their peers on the web to complete their inquiries and share course materials.

The majority of investigations and enquiries on the impact of cyberloafing on academic performance were conducted outside Ghana. Data seems to be lacking on the impact of cyberloafing within the Ghanaian context.

Gender differences in cyberloafing activities

Gender disparities are one of the most well researched aspects of cyberloafing. Gender had a favourable influence on cyberloafing, according to Baturay and Toker (2015), with male learners engage in more online browsing than female pupils. Of all the demographic factors evaluated in their study, gender had the largest impact. With all other variables held constant, a male student's cyberloafing score was 6.920 points greater than female students. Gender is thought to impact both particular forms of cyberloafing and cyberloafing as a whole, with males exhibiting more cyberloafing behaviour than their counterpart females. As there was a substantial gender difference in news follow-up, private business and general cyberloafing, there was no such difference in socialising (Baturay, & Toker, 2015).

According to Ylmaz, Ylmaz, ztürk, Sezer, and Karademir (2015), male students received an average score of 65.14 on the cyberloafing activities scale, while female students had an average score of 55.03. When looking at the scale as a whole, the degrees of cyberloafing among students reveal statistically significant differences. To put it another way, men students engage in more cyberloafing than female students. Regarding the scale's sub-dimensions, it is worth noting that the sub-dimensions individual, search,

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social, and news differ statistically substantially depending on gender. This disparity is attributed to male university students, whose scores on sub-dimensions of the scale are greater than their counterparts who are females.

Among university students, Zcan, Gökçearslan, and Yüksel (2017) discovered a substantial difference between male and female cyberloafing habits. Male students are more likely to cyberloaf than female pupils. In an online survey, Akbulut et al. (2017) discovered that online Turkish males' total cyberloafing scores were substantially higher than females', having a small magnitude of influence. The interaction effect was looked into in order to figure out what was causing the difference. The study found that males and females were equal in terms of other cyberloafing areas, excluding gaming, of which males surpassed females with a modest effect size (p 0.001; eta squared14 0.023).

Dursun, et al., (2018) found that male learners engaged in more cyberloafing than females, with a male student's cyberloafing score being 2.355 points greater than a female student's when any other factor was not manipulated but held constant. After using the Bonferroni correction, males scored substantially higher in terms of buying, accessing internet material, and gaming/gambling. However, there were no major changes in terms of sharing and real-time updating. For betting or gambling, the impact size was large, but for other major findings, it was minor.

According to Akgün (2020), there is a big variation between the gender variable and the average points acquired on the cyberloafing scale. Although, no significant difference exists between the real-time operations factor sub-dimension and the gender variable, a notable change is present between all

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other sub-dimensions and the gender variable, with the difference favouring boys. Furthermore, effect size was used to assess the degree of the significant difference between girls' and boys' means of sharing, acquiring, browsing online content, betting, and cyberloafing. In terms of greatest and lowest impact size values for cyberloafing in general and sub-factors, the difference in mean values between girls and boys in the gambling subfactor is significant, but the difference in mean levels between girls and boys in the sharing subfactor is modest. On the cyberloafing scale, there was a modest difference in average scores between females and boys.

According to Toker and Baturay (2021), males were more likely than females to use cyberloaf for personal affairs and news follow-up, with a bigger gender difference in news follow-up cyberloafing than in domestic matters.

While some research (Baturay, & Toker, 2015; Ylmaz et al., 2015; Zcan et al., 2017; Akbulut, et al., 2017; Dursun, et al., 2018; Akgün, 2020; Toker, & Baturay, 2021) showed substantial gender differences, Knight, (2017) found the opposite. Knight (2017) discovered that among undergraduate students at a big South-eastern University, women reported using mobile phones considerably more frequently than males (176) but that the sex difference in laptop use was not significant. Considering that males were cyberloafing more than women in class, the contrary was discovered - especially with cell phones. There were no substantial variances between men and women when it came to using computers during class for non-academic purposes. There were no significant variations in cell phone views between men and women, according to an independent t-test. Men and women have similar attitudes of laptops, according to an independent t-test. Male and

female views regarding using smartphones or computers in class did not differ much.

Age differences in cyberloafing activities

There seem to be scant data on the link between cyberloafing and age disparities. Ahmad and Omar (2017) looked at whether there were any differences in cyberloafing between males and females, as well as between younger and older employees. Data was collected from 260 Malaysian employees working for a government organisation using survey questionnaires. Between the age groupings, there was no noticeable difference. The fact that the older workers in their research are likewise computer literate and see technology as helpful for both career and family usage, and so engage in cyberloafing like younger adults. This might explain the non-significant findings on the variation in cyberloafing by age group. Knight (2017) reported that whilst no significant relationship between age and smartphone sentiments, there was a strong detrimental correlation was present between age and computer utilization in class.

Summary

The review of literature specified that the types of social loafing among students are socialisation, news follow-up and personal business. The main factors responsible for cyberloafing can be grouped into instructor linked factors, content connected variables, student related variables, and environmental related factor. The investigation further revealed that solutions to cyberloafing behaviours could be discussed in light of the factors that were found to be responsible for cyberloafing, thus, instructor associated variables,

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content associated variables, student associated variables, and environmental associated factor.

Majority of the studies on how cyberloafing impacts on academic achievement reveals a negative relationship, thus. Cyberloafing tends to decrease the academic performance of students, with one study reporting no relationship. When it comes to gender differences, males dominated in cyberloafing activities according to majority of the studies, although the study found females to cyberloaf more than males. There is limited data on the variable age and cyberloafing, although the investigations that exist yielded no substantial differences in relation to age and academic performance. There seems to be inadequate data on cyberloafing in Africa as a whole.

The majority of the studies in recent literature were conducted outside of Ghana. Also, it is important to find out if these findings in literature are similar to that of the Ghanaian context. The current study therefore seeks to provide detailed information on the phenomenon of cyberloafing in Ghana.

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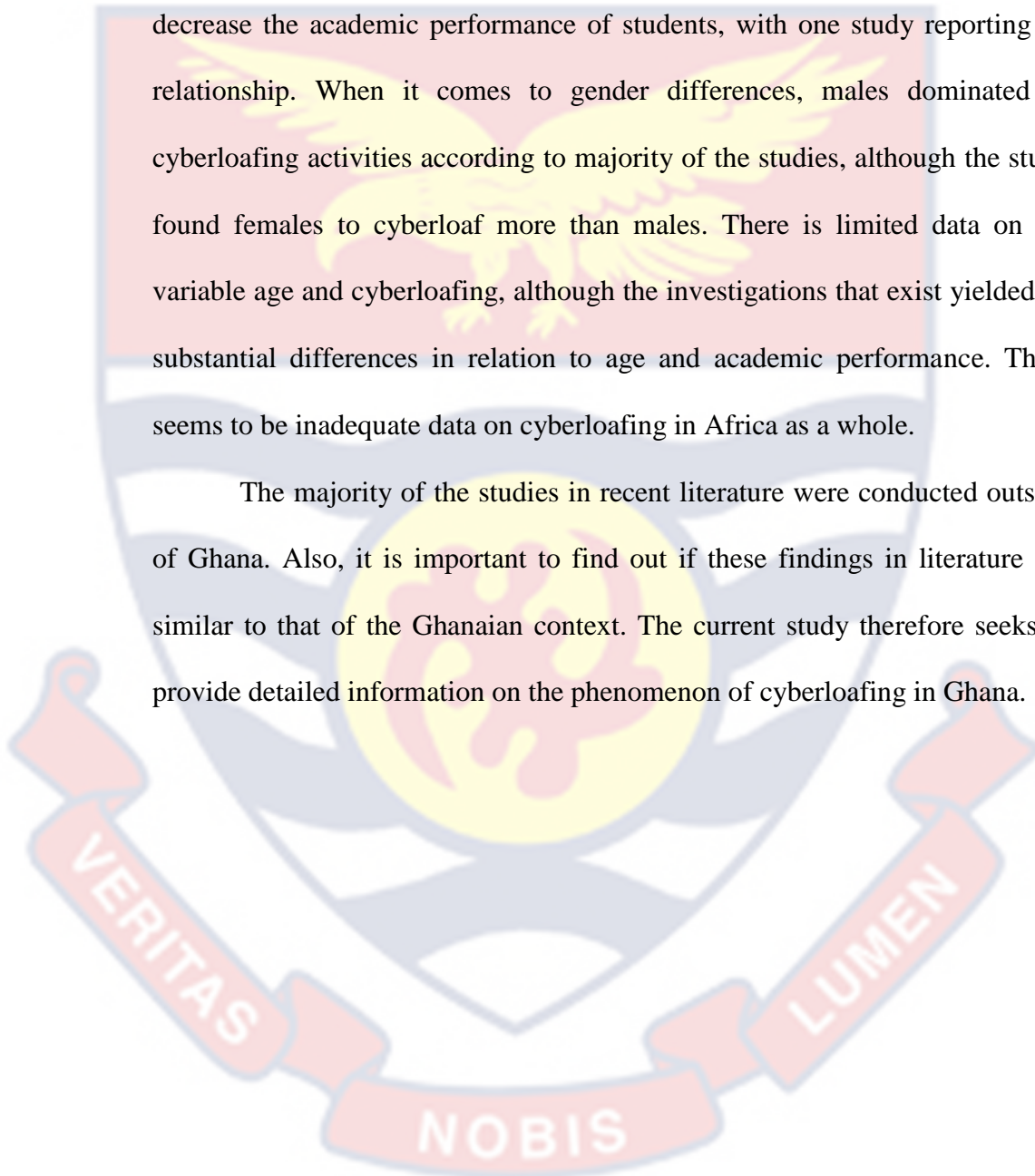
CHAPTER THREE

RESEARCH METHODS

Introduction

This section of the study presents the procedures used for the study. Specifically, the chapter discusses the research design, population, sample size and sampling techniques, data collection instruments, and other ethical consideration observed in the investigation. Furthermore, the procedure that were employed in data collection and analysis have been described.

Research Paradigm

A paradigm is a way of searching for or investigating incidents, a world view, an insight into what constitutes a recognised or scientifically valid knowledge or a method of operating, an established model or pattern (Kuhn, 1962), a collaborative system of belief or principles that guide, the identification of a scientific world, a procedure of discovering the truth, general agreement on what significant problems to investigate and how to thoroughly investigate the issues (Kuhn, 1962). By offering a point of view, a school of thought, or a collection of shared concepts, this worldview impacts the meaning or understanding of study results (Kivunja & Kuyini, 2017). It is comprised of intangible principles and theories that have an impact on how a researcher view, understands, and behaves in the environment. It is made up of abstract principles and theories that affect how a researcher views the world, and also how he or she perceives and behaves within it, and it determines the researcher's worldview. It's a researcher's basis for comparison for looking at the world. The paradigm shapes a researcher's ideological perspective. As a consequence, a paradigm identifies how we establish meaning from the data

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we obtain, based on our subjective opinions). This has huge ramifications for every choice taken during investigating a phenomenon, including methods chosen and employed, and as a result, a paradigm describes how we construct insights from data we collect. The four primary research paradigms highlighted by Kivunja and Kuyini (2017) are forecasting (positivism), comprehension (interpretive methods), liberatory (critical theoretical approaches), and pragmatic.

In consideration of data analysis, for instance, the Positivist paradigm indicates that the data collected will be quantitative in nature and will most likely be assessed statistically. The use of the Interpretivist paradigm, on the other hand, relates to qualitative information gathering and analysis technique and methodologies. The researcher subscribes to the Positivist worldview. The researcher believes that an objective world exists independently of the person and consists of causally interacting things that may be observed. The essential factors, cyberloafing and academic achievement, may be measured objectively using proper data collecting techniques, such as the questionnaire, in this case. Thus, it is feasible to determine objectively whether students engage in cyberloafing or not, and if such involvement has an effect on academics or not. This approach is consistent with quantitative research, which is defined by hypothesis testing, quantitative information, methodological impartiality, generalization, the identification of were in of association, and variable isolation and control (Hammersley, 2013). With these presuppositions, the positivist paradigm promotes the application of quantitative methods as the base for the investigator's capacity to be concise in the characterization of the

parameters and coefficients in the information that is generated, analyzed, and construed in order to comprehend the data's associations.

The current study attempts to explore the link between students' cyberloafing behaviours and their academic achievement. Questionnaires were utilised to gather and obtain quantitative data from respondents, and statistical techniques employed to analyse this data. As a result, the Positivist viewpoint is justified.

Research Design

A research design is a strategy for organizing and conducting research such that research questions may be answered using facts and rationale (Cohen, Manion, & Morrison, 2018). The researcher chooses a study technique from the quantitative, qualitative, or mixed methodologies categories. In accordance with Creswell (2014), experimental designs (such as genuine experiments and quasi-experiments) and nonexperimental designs (such as surveys and questionnaires) are two kinds of quantitative inquiry designs (e.g., causal comparative research, correlational research and survey research). According to Creswell, qualitative research methodologies include grounded theory, empirical phenomenology/phenomenology of experience, protocol analysis, discourse analysis, ethnography, narrative investigation, and case study, among other things (2014). Combining convergent, explanatory, and exploratory sequential research designs with transformational embedded or multifunctional inquiry models are examples of mixed approaches research designs.

Many academic research methods are exploratory in nature, aiming to explain and interpret what is seen (Cohen, Manion, & Morrison, 2018). Best (1970) defines descriptive investigation as "existing conditions or connections," "prevailing practices," "held beliefs, points of view, or dispositions," "processes in progress," "felt repercussions," or "developing trends." Descriptive research can be preoccupied with how what is or what already exists is linked to a past incident that has impacted or affected the current condition or happening. People, organizations, structures, procedures, and substances are investigated in order to explain, evaluate, categorize, analyze, and explain the objects and events that make up their various fields of study. Surveys at a certain point in time are used to collect information with the purpose of giving an account of present events, establishing criteria by which present requirements may be assessed, or ascertaining the linkages between particular instances.

As a result, survey degrees of sophistication might range from basic frequency counts to those that offer relationship analyses. A survey has numerous qualities and several stated benefits; it is generally used to scan a broad range of topics, people, programmes, and so on in order to quantify or characterise any generic traits. It is advantageous (Morrison, 1993) because it frequently gathers data in a single phase, making it both cost-effective and quick (Cohen, Manion, & Morrison, 2018). They can range in sophistication from providing simple frequency counts to presenting relationship analyses.

Descriptive survey is deemed appropriate as it is a summary of the main state of events with no influence over the elements by the investigator (Ethridge, 2004). Moreover, "descriptive studies may simply be defined as the

endeavour to discern, characterise, or identify what is." The current study aims to explain university students' cyberloafing behaviours and how they affect their academic performance.

Research Approach

Quantitative methods are concerned with precisely evaluating a limited number of variables in order to address theory-guided research questions and hypotheses (Creswell, & Creswell, 2017). Quantitative data analysis is an effective research technique based on the positivist worldview. It is linked to large-scale investigations, but it may also be used to smaller-scale ones including case studies, correlational investigations, action research, and trials. Precision assessments and analytical, mathematical, or numeric interpretation of the information collected through polls and questionnaires as well as by computer-aided data modification of pre-existing statistical data are the focus of quantitative research. It is associated in acquiring quantitative data and evaluating it across sections of the population or in comprehending a single occurrence. Examining the relationships between and among data, for example, is crucial for conducting surveys and tests to answer questions and test hypotheses. Measures or observations for validating a hypothesis are obtained by limiting a huge number of factors to a small number of variables that are properly monitored by design or statistical analysis. Measurements and observations based on empirical evidence provide genuine evidence (Creswell, 2014).

Study Area

In the North, University for Development Studies (UDS) is Ghana's first public university established in the twentieth century (University for

Development Studies, 2021). On 15th May, 1992, PNDC Law 279 was promulgated by the Government of Ghana and published in the Gazette with the following objectives: to deliver advanced learning to those who are adequately prepared and capable of profiting from it; to conduct research and foster the growth and diffusion of knowledge, as well as its relevance to the values and wants of the Ghanaian people; and to connect the academic universe with other sectors of society.

UDS's pedagogical philosophy is thought to have evolved as a mode of a new means of thinking about higher education that stresses on the need for institutions to have a more proactive involvement in solving social issues (especially in rural areas) in order to accelerate development. The University's mandate and constituency place a strong emphasis on assisting the disadvantaged, and it is seen in the University's research, instruction and outreach services methodologies. The focus on practical, inquiry, and ground learning is designed to help reduce suffering while simultaneously accelerating national prosperity by lowering dependency on international assistance. As a national university, it distinguishes itself by virtue of the following characteristics: Its geographic position as well as its multi-campus system.

As a result of its pro-poor vision and character, it seeks to address the underlying circumstances and structural causes of poverty. Community-technical interaction programmes, for instance, Third Trimester Field Practical Programme (TTFPP) and Community-Based Education and Service (CBES), which integrate academic study with community-based field practical work, are offered at the university (COBES). With the admission of its first class of

40 learners into the Faculty of Agriculture, the University officially commenced academic operations in September 1993. (FoA). From 1994 until the present, the addition of new faculties, schools, and institutions has been phased in progressively. Current organisational structure includes 6 schools, 6 faculties, 3 institutes, and 4 centres of the University of New Hampshire (including two Units of Excellence).

The University for Development Studies runs a multi-campus scheme that includes various facilities (University for Development Studies, 2021): Tamale Campus – Central Administration, School of Allied Health Sciences (SAHS), School of Medicine (SoM), School of Public Health (SPH), School of Nursing and Midwifery (SoNM), Desert Research Institute (DRI), Faculty of Education (FoE) and School of Allied Health Sciences (SAHS). This is the group of people that are participating in the present study.

The Nyankpala Campus is home to the Faculty of Agriculture, Food and Consumer Sciences (FoAFCS), the Faculty of Biosciences (FoB), the Faculty of Natural Resources and Environment (FNRE), the West African Centre for Water, the School of Engineering (SoE), Irrigation, and Sustainable Agriculture (WACWISA), and the West African Centre for Sustainable Rural Transformation (WACSRT), amongst others like WACWRT.

The Graduate School, the Institute of Interdisciplinary Research (IIR), Colleges of Education Affiliation, the Institute of Distance and Continuing Education (IDCE), and the Business Innovation and Incubation Centre (BIIC) are all located on the Tamale City Campus; the Tamale North Campus is home to the School of Applied Economics and Management Sciences (SAEMS); the

Eastern Campus, Yendi is home to the Faculty of Communication and Cultural Studies (FCCS) and the Faculty of Education (CePSS).

The Faculty of Agriculture, Food, and Consumer Sciences (FoAFCS) is the University's oldest faculty, having been established in 1898. (University for Development Studies, 2021). Graduate and undergraduate programmes are now offered at the university's different locations. UDS also engage in outreaches as part of duties and conducts investigations with the goal of fostering an environment conducive to long-term community development and economic prosperity. Directorate of Community Relations and Outreach Programs (DCROP) at the University of Toronto has the mandate for creating the university's community-technical-interface programme, which includes TTFPP, Teaching Practice, COBES, and a Homestay Program for overseas students.

Population

The population for this investigation included students at the University of Development Studies, Tamale who are about 62000. These include all students offering various programmes at the University. The target or theoretical population for this study includes (3000) education students offering Basic Education and Early Childhood as well as (693) students offering Community Health Nutrition at the University for Development Studies. The accessible population for this study were level 200 and 300 students offering Basic education, Early Childhood and Community health nutrition. Thus, the accessible population comprises of 463 education students offering basic education and early childhood and 340 students offering Community Health Nutrition.

Sampling Procedure

This is where the investigator selects either probability (a representative selection) or non-probability sample (a purposive sample). In a probability sample, members of the general population have a known probability of being chosen for the sample, whereas in a nonprobability sample, individuals of the general populace possess an undetermined probability of being picked for the sample (Cohen, Manion, & Morrison, 2018). Any participant of the general populace gets an unbiased opportunity of being involved in the sample in the former (probability sample); addition or removal is completely decided by randomness. Some individuals of the wider public will be absolutely excluded, while others will be absolutely shown in the latter (non-probability sample), indicating that no person of the wider public will have an unbiased shot of being represented in the sample. A probability sample is advantageous if the researcher wants to be capable of making generalizations since it is selected at chance from the broader population. It also seeks generalizability of the bigger group (Quantitative data can also be used for a number of statistical tests).

Probability samples include systematic samples, cluster samples, simple random samples, cluster samples, stage, samples stratified samples, as well as multi-phase samples. They have all got a little bit of randomness in them, so they are all kind of generalizable. To choose a sample from the pupils, the proportional stratified sampling approach was utilized. As with probability sampling, this strategy, known as stratified random sampling, is sometimes referred to as stratified random selection (SRS). To stratify is to divide or categorize individuals into groups based on certain

qualities such as their social standing, rank, financial resources, gender, education, or ethnic background; stratification is also known as classification (Verma, Gautam, Pandey, Mishra, & Shukla, 2017). These numerous classifications are referred to as subsets or subgroups. It also requires recognizing sub-groups within the broader population and then randomly or systematically sampling these sub-groups to guarantee that each sub-group is included fairly in the sample backdrop as asserted by Verma, Gautam, Pandey, Mishra and Shukla (2017). The population is split into groups or strata for a stratified random sampling. These traits may or may not be present in the same levels in the sample as they are in the populace when persons are randomly selected from a population; stratification assures their representation (Creswell, 2014). A representative selection is selected from each stratum based on the percentage of the populace that each subgroup reflects in proportional sampling.

According to the determining the appropriate sample chart developed by Krejcie and Morgan (1970), the investigation's sample size will be 210 for (463) education students and 181 for (340) community health nutrition students. To ensure that both groups were adequately sampled among the students, proportionate sampling was employed for both the education and community health nutrition students. A total of 159 students were selected from Basic Education comprising of 89 males and 70 females. A number of 51 learners from Early Childhood were selected comprising 23 males and 28 females. Therefore, to obtain the sample size of 210, a total of 159 (89 males and 70 females) were selected from Basic Education and 51 students from Early Childhood (23 males and 28 females) were randomly chosen for the

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investigation. Furthermore, a total of 340 students were selected from community health nutrition comprising of 75 males and 265 females. Therefore, to obtain the sample size of 181, a total of 181 (40 males and 141 females) were randomly selected from the community health nutrition programme and used for the investigation.

The tables below give an account of each proportion of learners.

Table 1: Education Students

Target Population	Total	Sample
	3000	
Accessible Population	463	210
Basic Education	351	351/463 x 210 = 159
(Males)	196	196/351 x 159 = 89
(Females)	155	155/351 x 159 = 70
Early Childhood	112	112/463 x 210 = 51
(Males)	51	51/112 x 51 = 23
(Females)	61	61/112 x 51 = 28

Source: University of Development Studies, Tamale (2021)

Table 2: Community Health Nutrition Students

Target Population	Total	Sample
	693	
Accessible Population	340	181
Community Health Nutrition	340	
(Males)	75	75/340 x 181 =40
(Females)	265	265/340 x 181 =141

Source: University of Development Studies, Tamale (2021)

Data Collection Instruments

Primary data will be collected from the respondents. A questionnaire was adapted (Sutarno, 2019) and used for the study. Questionnaires collect structured and open responses from a large number of individuals on a wide range of topics using a structured format. They have the potential to be low-priced, trustworthy, authentic, and quick and uncomplicated to carry out and

this is an assertion by Cohen, Manion and Morrison (2018). Reliability was determined by running an internal consistency analysis, specifically using the Cronbach"s alpha. Results indicated that the types of cyberloafing scale had a Cronbach"s alpha of .802, frequency of cyberloafing had .819, reasons for cyberloafing had .827 and lastly academic engagement had .905. Total reliability score for the entire scale was .868. These figures indicate that the various scales had good reliability scores. Also, the combined Cronbach"s alpha was also good.

Data Collection Procedure

The University of Cape Coast's Institutional Review Board granted ethical approval. The researcher requested an introduction letter from the University of Cape Coast's Department of Education and Psychology. Furthermore, the researcher clarified ethical issues, confidentiality and anonymity issues to the respondents. Researcher personally delivered the questionnaires and explained ambiguous items to respondents. The researcher explained briefly the aim of the investigation and the importance of the research to the participants. Questionnaires were distributed to people who accept to be part of the investigation. Confidentiality was assured. The researcher used approximately 4 to 8 weeks to collect data from participants with the help of well-trained assistants.

Data Processing and Analysis

Software such as the Statistical Package for Social Sciences can be used to do numerical methods (SPSS, Minitab, Excel). Statistical formulas and computations are applied by software programs. The Statistical Package for Social Science will be used to organize and categorize the survey data (SPSS

version 22). The descriptive statistics (frequency and percentages) obtained on research questions one, two, three, and four were used to examine the data collected on those questions. Using an independent t-test, the first, second, and fourth hypotheses were tested. Hypothesis three was analysed with simple linear regression.

CHAPTER FOUR

RESULTS AND DISCUSSION

Introduction

This section provided the results of an analysis and interpretation of the data gathered using a quantitative survey technique in the previous chapter. The purpose of this study seeks to examine the types of cyberloafing activities among university students and its impact on learners" academic performance, using University for Development Studies (UDS), Tamale.

The demographic characteristics of respondents are shown in the first section of the results section. The second section summarizes the findings from the study of the different types of cyberloafing activities that students engage in during lectures. The frequency with which students engage in cyberloafing activities during lectures, as well as the reasons for which students engage in cyberloafing activities during lectures, are discussed in the third and fourth stages, respectively. The perceived impacts of students' cyberloafing activities on their academic performance are discussed in detail in section five of this study. Part six of the discussion focused on measures to mitigate the negative consequences of cyberloafing activities among students in the university. Among the topics covered in parts seven, eight, and nine were disparities in frequency of cyberloafing activities based on gender, age, and the program under study. The results of the study on the influence of frequency of cyberloafing activities on students' academic performance are shown in Section ten. The research offers all replies in tables, but it also examines the most significant findings. The final section of this chapter is a discussion of the findings.

Results

Demographic information of the respondents

The responses of the participants on their demographics are presented in Table 1. These include gender, age, programme of study, level of education, and daily usage of internet connected device.

Table 3: Demographics

Variable		Frequency	Percent
Gender	Male	154	39.4
	Female	237	60.6
Total		**391**	**100.0**
Age Range	Young Adults (18-25)	268	68.5
	Adults (26 and above)	123	31.5
Total		**391**	**100.0**
Program of study	Degree in basic education	159	40.7
	Degree in early childhood Education	51	13.0
	Degree in Community Health Nutrition	181	46.3
Total		**391**	**100.0**
Level of education	Level 200	226	57.8
	Level 300	165	42.2
Total		**391**	**100.0**
Do you use an internet device?	Yes	391	100.0
How many times do you use an internet connected device daily?	1-3 times	4	1.0
	4-6 times	30	7.7
	7-9 times	176	45.0
	10-12 times	111	28.4
	13 times or more	70	17.9
Total		**391**	**100.0**
Which of the following device do you use	Desktop	39	10.0
	Laptop	254	65.0
	Computer	98	25.1
Total		**391**	**100.0**
How often do you use internet for your personal activities during lessons	Never	35	9.0
	Rarely	49	12.5
	Sometimes	126	32.2
	Often	143	36.6
	Always	38	9.7
Total		**391**	**100.0**

Source: Field survey (2021)

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According to the findings, the vast majority of respondents (60.6%) were female, with only a few men participating (39.4%). Furthermore, majority of the respondents (68.5%) were young people (18-25 years old), with the remainder of respondents being adults (31.5%). The majority (46.3%) of those who responded were pursuing a bachelor''s degree in Community Health Nutrition, which is the most common program of study offered at the University for Development Studies, Tamale. 40.7% of the respondents pursue bachelor's degree in basic education, with a few of the respondents pursuing a bachelor's degree in early childhood education (13.0%). Additionally, majority (57.8%) were at level 200, with (42.2%) students in level 300.

All of the respondents stated that they use a gadget that is linked to the internet. Respondents' everyday routines, on the other hand, varied. The vast majority of them use internet on their cell phones for 30-60 minutes (45.0%). Following that, it's 1-2 hours (28.4%), 10-30 minutes (7.7%), and 3-4 hours (28.4%) and (17.9%) respectively. Only a small percentage of respondents (1%) use their cell phones for 10 minutes. A laptop is owned by the vast majority of respondents (65%). A total of 25.1% of students had access to a computer at school, with just a handful (10%) having a desktop computer. Respondents were also questioned about their daily internet connected device usage while school was in session, which they readily provided. When school is in session, 36.6% of the students use their phone or laptop for 4-6 hours every day. This represented more than one-third of those who answered the survey questions. The second most common daily phone/laptop usage was 2-3 hours (32.2%), which represented nearly a third of those who responded. In

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addition, 12.5% used their phone or laptop for 1-2 hours, 9.7% used it for 6 hours, and 9% used it for 1 hour.

Research question one

Research question one sought to find out the types of cyberloafing activities students engaged in during lectures. A checklist was provided to respondents. A total of 10 items were used to solicit data from respondents. Respondents were required to select from the list of options the types of cyberloafing activities they engaged in. Table 2 presents results on students" responses in frequencies (F) and percentages (P).

Table 4: Types of cyberloafing activities students engage in during lectures

Type of cyberloafing	F	P
Visiting social networking sites	224	57.3
Chatting online	234	59.8
Playing online games	263	67.3
Visiting sports sites	233	59.6
Watching videos/download movies	235	60.1
Checking/sending emails	249	63.7
Downloading materials	235	60.1
Browsing the internet for information unrelated to the lecture	240	61.4
Reading news from the internet	235	60.1
Shopping online	217	55.5

Source: Field survey (2021)

From Table 2, it can be realised that majority of respondents (more than half) engaged in all 10 cyberloafing activities. More than half (67.3%) indicated they play online games during lectures. This was the highest reported type of cyberloafing activities engaged in during lectures. Furthermore, a total of 63.7% check/send emails during lectures, this was the

second highest cyberloafing activities engaged in. In the third place, 61.4% indicated that they browse the internet for information unrelated to the lecture during lectures. In addition, a total of 60.1% of respondents each indicated they watch videos/download movies during lectures, download materials during lectures, and read news from the internet during lectures. Also, about two-thirds of the respondents indicated they chat online during lectures (59.8) and visit sports sites during lectures (59.6%). Again, 57.3% visit social networking sites during lectures and 55.5% shop online during lectures.

Research question two

Research question two sought to find out the frequency of cyberloafing activities students engage in during lectures. A total of ten items were used to assess the frequency with which students engaged in cyberloafing activities. Respondents were required to select from the list of options numbered 1-4 how often they engaged in cyberloafing activities. Responses included never (1), sometimes (2), often (3), and very often (4). Never meant the respondent does not engage in cyberloafing activities at all. Sometimes means the respondent engaged in cyberloafing activities on average once or twice a day. Often meant the respondent engaged in cyberloafing activities on average 2 to 3 times a day. Very often meant that the respondent engaged in cyberloafing activities more than three times a day.

Table 5: *Frequency of cyberloafing activities students engaged in during lectures*

Cyberloafing Activities	Never		Sometimes		Often		Very Often	
	F	**P**	**F**	**P**	**F**	**P**	**F**	**P**
I visit social networking sites during lectures	68	17.4	233	59.6	59	15.1	31	7.9
I chat online during lectures	77	19.7	212	54.2	77	19.7	25	6.4
I play online games during lectures	174	44.5	143	36.6	47	12.0	27	6.9
I visit sports sites during lectures	246	62.9	80	20.5	31	7.9	34	8.7
I watch videos/download movies during lectures	236	60.4	85	21.7	46	11.8	24	6.1
I check/send emails during lectures	167	42.7	122	31.2	60	15.3	42	10.8
I download materials during lectures	126	32.2	125	32.0	90	23.0	50	12.8
I browse the internet for information unrelated to the lecture during lectures	133	34.0	130	33.2	91	23.3	37	9.5
I read news from the internet during lectures	143	36.6	123	31.5	81	20.7	44	11.3
I shop online during lectures	291	74.4	78	19.9	17	4.3	5	1.3

Source: Field survey (2021)

In relation to the frequency of cyberloafing activities, only 7.9% noted that they visited social networking sites during lectures very often. In relation to chatting online during lectures   ,6.4% of them engaged in this behaviour very often. Also, 6.9% played online games during lectures very often. A total of 8.7% visited sports sites during lectures very often. Furthermore, 6.1% watched videos/download movies during lecture very often. In response to the statement "I check/send emails during lectures" 10.8% of the respondents noted they do this very often. A total of 12.8% downloaded materials during lectures very often. In addition, 9.5% browse the internet for information unrelated to the lecture during lectures very often. A total of 11.3% read news from the internet during lectures very often while only 1.3% shop online during lectures very often.

Research question three

Research question three sought to find out the factors that influence students to engage in cyberloafing activities during lectures. A total of 17 questions on three subscales (reasons associated with lecturer, reasons associated with students and reasons associated with course) were used to solicit data from respondents. Respondents chose among four options; option 1 for strongly disagree, 2 for disagree, 3 for agree and 4 for strongly agree. Responses were presented using means and standard deviations. Mean scores above 2.5 indicates respondents agreed that the statement is a reason for engaging in cyberloafing activities whiles mean scores below 2.5 indicates that respondents disagreed to the statement. Table 4 presents results on students" responses.

Table 6: *Factors that influence students to engage in cyberloafing activities during lectures*

Reasons Students Engage in Cyberloafing Activities during Lectures	M	SD
Reasons Associated with Lecturer		
Does not teach well	2.40	0.79
Limited methods of teaching	2.71	1.26
Ineffective use of TLMs	2.78	1.76
Poor communication skills	2.73	0.85
Does not engage students	2.73	0.90
Reasons Associated with Student		
Tiredness/fatigue	2.62	0.87
Lack of motivation	2.89	1.75
Private matters	2.89	2.29
Lack of concentration	2.85	0.91
Too many friends/belonging to several WhatsApp Groups	2.79	0.89
Reasons Associated with Course		
Course is too difficult	2.69	0.84
Course objectives were not clear	2.92	0.87
Not enough time to complete class assignments	2.89	1.77
Course content is readily available	2.90	0.86
Unnecessary content	2.80	0.83

Source: Field survey (2021)

Data from Table 3 revealed that lecturers limited methods of teaching (M=2.71, SD=1.26), ineffective use of TLMs (M=2.77, SD=1.76), poor communication skills (M=2.73, SD=0.85), and not engaging students (M=2.73, SD=0.90) are reasons that cause students to engage in cyberloafing activities. However, lecturers" inability to teach well was not a factor that leads to cyberloafing activities among students (M=2.40, SD=0.79). In relation to reasons associated with student, lack of motivation (M=2.89, SD=1.75), private matters (M=2.89, SD=2.29), lack of concentration (M=2.85, SD=0.91), too many friends/belonging to several WhatsApp groups (M=2.79, SD=0.89) and tiredness/fatigue (M=2.62, SD=0.89) were prevalent reasons among respondents. Unclear course objectives (M=2.92, SD=0.87), inadequate time to complete class assignments (M=2.89, SD=1.77), course content is readily available (M=2.90, SD=0.86), unnecessary content (M=2.80, SD=0.83), and too difficult course content (M=2.69, SD=0.84) were the prevalent reasons students engaged in cyberloafing.

Research question four

Research question four sought to find out respondents" perception about the effects of cyberloafing activities on student performance. A total of 10 questions on a four-point Likert scale with 1 for strongly disagree, 2 for disagree, 3 for agree and 4 for strongly agree. Options 1 and 2 represent disagreement while options 3 and 4 represent agreement. Responses were presented using frequencies and percentages. Table 7 presents results on students" responses in frequencies (F) and percentages (P).

Table 7: *Effects of Cyberloafing Activities on Student performance*

Statement	Disagree		Agree	
	F	P	F	P
The time I spend on social media takes away my time for studying	100	25.6	291	74.4
Online social networks distract my studies	106	27.1	285	72.9
Engaging in academic forums on social media confuses Me	130	33.2	261	66.8
Social media has negatively impacted on my writing Skills	154	39.4	237	60.6
Social media have impacted my GPA negatively	145	37.1	246	62.9
I will not perform well in my academics even if I stop using social media	124	31.7	267	68.3
I engage in academic discussions on social media platforms online with friends	109	27.9	282	72.1
I use social media to share/receive information from my Colleagues	110	28.1	281	71.9
I rely on information from the internet to do my Assignments	119	30.4	272	69.6
The usage of social media for research has helped improve my grades	140	35.8	251	64.2

Source: Field survey (2021)

Results from Table 7 indicates that respondents agreed to all 10 statements. A total of 74.4% respondents also agreed that the time they spend on social media takes away their time for studying Furthermore, 72.9% respondents agreed that online social networks distract their studies. Also, 66.8% respondents engage in academic discussions on social media platforms online with friends and 71.9% use social media to share/receive information from their colleagues. One other effect of cyberloafing on academic

engagement by indicated by 66.8% of respondents was that engaging in academic forums on social media confuses them.

Again, 60.6% respondents specified that social media has negatively impacted on their writing skills. In addition, 68.3% of the respondents were also of the view that they will not perform well in their academics even if they stopped using social media. Also, 69.6% of the respondents relied on information from the internet to do their assignments. Most respondents (62.9%) specified that generally, social media has impacted their GPA negatively. However, 64.2% respondents indicated that the use of social media for research has helped improve their grades.

Research question five

The goal of research question number 5 was to identify strategies for reducing cyberloafing activities among university students. Respondents were asked to provide information through the use of an open-ended inquiry. Respondents were asked to identify one concrete approach in which cyberloafing activities among students may be curtailed during lectures, and they were asked to elaborate. The data analysis showed four primary themes that emerged from the data. There were several themes addressed, including the provision of relevant materials to enhance academic activities, education of students on cyberloafing activities, adequate engagement of students during lectures, and the implementation of legislation and requirements.

Provision of relevant materials to enhance academic activities

Lecturers must provide lecture notes on time, according to the responses received from students. Students will be able to revise their notes before going to class as a result of this, responses revealed that timely

availability of lecture notes is essential in order to limit the amount of time students spend on the internet in search of information, which frequently results in cyberloafing. Respondents also stated that lecturers should use teaching and learning resources to ensure that students grasp what they are being taught during classes.

Education of students on cyberloafing activities

Students should be educated on the impact of cyberloafing activities on their academic performance, according to the respondents who answered the survey questions. Educating students on the harmful aspects of cyberloafing activities is essential with regards to their academic performance. Also mentioned was the necessity for students to be taught the proper methods of looking for information in order to limit the amount of time they spend on their phones during lectures, according to the participants. Participants also agreed that students should be taught how to use the internet appropriately for academic purposes and that they should be discouraged from using online resources for other non-academic objectives.

Adequate engagement of students during lectures

Respondents also stated that the majority of cyberloafing activities take place as a result of lecturers' failure to completely engage pupils during their classes. Students should be encouraged to participate actively during lectures, according to the participants. In the opinion of the participants, encouraging students to participate actively during lectures will keep the course engaging, and as a result, students will refrain from using lecture hours to indulge in cyberloafing activities.

Enforcement of rules and regulations

Another subject that came up again was the need of enforcing laws and regulations. This includes limiting the use of the internet and cell phones in classes, ensuring that students who engage in cyberloafing activities are penalised in a variety of ways, and guaranteeing that class numbers are kept small during lectures. In the opinion of participants, the implementation of laws and regulations, including the shutting off of phones during lectures, will aid in the reduction of cyberloafing activities. Additionally, students who are detected engaging in cyberloafing activities during lectures can be penalized in order to serve as a deterrence to other learners who may become engaged in cyberloafing activities in the future.

Research hypothesis one

Sex difference in the frequency of cyberloafing activities students engage in.

Research hypothesis one sought to find out the sex difference in the frequency of cyberloafing activities students engage in. An Independent Samples T-Test was run to find out if there was a statistically significant sex differences in frequency of cyberloafing activities students engage in. The independent variable was sex, whiles the dependent variable was frequency of cyberloafing activities students engaged in. Table 8 presents results of the independent t-test.

Table 8: *Independent Sample T-Test for Gender and frequency of Cyberloafing Activities*

Gender	N	M	SD	T	Df	P
Male	154	22.20	2.59			
				-.935	389	.350
Female	237	22.44	2.55			

Source: Field survey (2021)

An independent samples t-test was conducted to compare the frequency of cyberloafing activities scores for males and females. Levene"s test of homogeneity of variance revealed that the variances for the two groups (male and females) are equal (p= .582). Results of the t-test revealed that there was no statistically significant difference in cyberloafing activities scores for males (M= 22.20, SD=2.59) and females (M=22.44, SD=2.55); t (389) = -.935, p = .350 (two tailed). This means that when it comes to frequency of cyberloafing activities there is no difference between and females.

Research hypothesis two

Age difference in the frequency of cyberloafing activities

Research hypothesis two sought to find out the age difference in the frequency of cyberloafing activities. An independent samples t-test was conducted to find out if there was a statistically significant age differences in frequency of cyberloafing activities students engage in. The independent variable was age with two categories; Young Adults (18-25), Adults (26 and above), whiles the dependent variable was frequency of cyberloafing activities students engage in. Table 9 presents results of the independent samples t-test.

Table 9: *Age difference in the types of cyberloafing activities*

Age	N	M	SD	T	Df	P
Young adults (18-25)	268	22.53	2.65			
				2.22	267.7	.028
Adults (26 and above)	123	21.94	2.32			

Source: Field survey (2021)

An independent samples t-test was conducted to compare the frequency of cyberloafing activities scores for young adults (18-25), adults (26 and above). Levene"s test of homogeneity of variance revealed that the variances for the two groups (young adults and adults) are not equal (p= .009).

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Results of the independent samples t-test analysis revealed that there was a statistically significant difference in frequency of cyberloafing activities scores for the two groups, young adults (M= 22.53, SD=2.65) and adults (M=21.94, SD=2.32); t (267.7) = 2.22, p = .028 (two tailed). This means that when it comes to cyberloafing activities there is statistically significant difference between the two groups young adults and adults. Comparing their means, it can be concluded that young adults (M= 22.53, SD=2.65) tend to engage in cyberloafing more than adults (M=21.94, SD=2.32).

Research hypothesis three

Programme differences in frequency of cyberloafing activities (education and community health)

Research hypothesis three sought to find out programme (education and community health) differences in frequency of cyberloafing activities. An independent samples t-test was conducted to find out if there was a statistically significant programme differences in frequency of cyberloafing activities students engage in. The independent variable was programme with two categories; education and community health, whiles the dependent variable was frequency of cyberloafing activities students engage in. Table 10 presents results of the independent samples t-test.

Table 10: *Programme difference in frequency of cyberloafing activities*

Programme	N	M	SD	T	Df	P
Education	210	22.13	2.51			
				-1.77	389	.078
Community health	181	22.59	2.61			

Source: Field survey (2021)

An independent samples t-test was conducted to compare the frequency of cyberloafing activities scores for education and community

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health students. Levene‟s test of homogeneity of variance revealed that the variances for the two groups (education and cyberloafing) are equal (p= .130). Results of the t-test revealed that there was no statistically significant difference in cyberloafing activities scores for education (M=14.3143, SD=3.03351) and community health (M=13.5304, SD=2.75185), t (389) = -1.77, p= .078 (two tailed). This means that there is no statistically significant difference in frequency of cyberloafing activities in relation to programme of study. Thus, education and community health students do not differ in terms of frequency of cyberloafing activities.

Research hypothesis four

Impact of cyberloafing activities on students' academic performance

       Research hypothesis four sought to find out the impact of frequency of cyberloafing activities on students‟ academic performance. A simple linear regression was conducted to find out if frequency of cyberloafing activities affects students CGPA. The independent variable was cyberloafing activities and the dependent variable was students‟ academic performance measured using students‟ (CGPA). Table 11 presents result on a linear regression for cyberloafing activities and academic performance.

Table 11: *Impact of frequency of cyberloafing activities and academic performance*

Variable	R	R^2	Adj. R^2	B	β	t	S. E	F	Sig.
Cyberloafing	.004	.000	-.003	-.002	-.004	-.088	.018	.008	.930

Source: Field survey (2021)
Dependent Variable: CGPA
Predictors: (Constant), Frequency of cyberloafing activities

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A simple linear regression was conducted to find out the impact of frequency of cyberloafing activities on learners" academic performance. The study revealed that cyberloafing activities was not a significant predictor of student academic performance, f (1, 389) = .008, R^2 =0.00, Adjusted R^2 = -.003, p= .930. With a p value greater than 0.05, we fail to reject the null hypothesis that there is no statistically significant impact of frequency of cyberloafing activities on students" academic performance. This means that, students" cyberloafing activities do not have a statistically significant effect on students" academic performance.

Discussion

Types of cyberloafing activities students engage in

The study revealed that all 10 cyberloafing activities was practiced among respondents. However, playing online games was the most prevalent activity. Online gaming is one of the widely used leisure activities by many learners". For some students, playing online games serve as a source of stress reliever, challenge and competition, relaxation, enjoyment, social interaction, and even mentally escaping from the real world. According to Kuss & Griffiths (2011), teens who play online games are just having fun. They do not just actually play because of some sort of seriousness, but also because they just want to feel relief. During school hours, students tend to feel stressed due to loads of school works and through playing it will relieve their stress. Thus, it can be assumed that playing online games provide them something that nothing can give. This shows that students also need to relieve the stress they face in school and the best way they know how to is to play games which creates a very conducive environment for them.

Others included checking/sending emails during lectures, browsing the

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internet for information unrelated to the lecture during lectures. In addition, respondents watch videos/download movies during lectures, download materials during lectures, and read news from the internet during lectures. Also, they chat online during lectures, visit sports sites during lectures, visit social networking sites during lectures and shop online during lectures. However, researchers, Baturay and Toker (2015) discovered that 46.9 percent of high school students in Turkey used the internet during class time for socialising reasons, with advanced-expert users exhibiting greater levels of cyberloafing behaviour than novice-intermediate users.

Also, according to Koay (2018), pupils appear to be more interested in social media websites than in other cyber pursuits in the classroom. Although the current study found that socialisation was part of the cyberloafing activities students engaged in, it was not the most prevalent. The current study found that the most prevalent cyberloafing activities were online gaming. This could be the case because most games are either online or offline, requiring very little or no data to engage in and as such, this makes it easier to play games when students engage in cyberloafing activities.

Frequency of cyberloafing activities students engaged in during lectures

The study revealed that all respondents often engaged in cyberloafing activities. Thus, on average, respondents engaged in cyberloafing activities on average 2 to 3 times a day. This is considered a high rate of cyberloafing behavior. This is not surprising as students in this study revealed that when school is in session, more than one third used their phone/laptop for 4-6 hours on average. Thus, from the findings of the study, majority of respondents spent a lot of their time engaging in cyberloafing activities. They mostly tend to visit sites that do not provide any sort of education or importance to their

lives but just for entertainment.

Factors that reinforce students to engage in cyberloafing

Students indicated factors that influenced them to engage in cyberloafing activities. One major theme was teacher factors. The study revealed that lecturers limited methods of teaching, ineffective use of TLMs, poor communication skills and not engaging students in the teaching and learning process are the reasons that cause them to engage in cyberloafing activities. These teacher factors might cause boredom among students as they feel uninvolved during instruction. When teachers are not dynamic and do not improve their interaction skills with students, the students may be bored and feel reluctant to contribute during classroom discussions and this will make them susceptible to cyberloafing. However, lecturers" inability to teach well was not a factor that leads to cyberloafing among students. These findings are similar to the findings of Dursun, et al., (2018) and Varol and Yildrim (2019) who discovered that failure of teachers to pick the best teaching technique for the subject, poor communication and motivating skills led to student cyberloafing. However, the current study found contrasting reports to Dursun, et al., (2018) and Varol and Yildrim (2019) assertion that lecturers" inability to teach well led to cyberloafing. The current study found that teachers" instructional skills were not a factor that led to cyberloafing for majority of the students. Teacher factors that led to cyberloafing include limited methods of teaching, ineffective use of TLMs, poor communication skills and not engaging students in the teaching and learning process.

In relation to the reasons associated with students, lack of motivation, private matters, lack of concentration, too many friends/belonging to several WhatsApp groups and tiredness/fatigue were prevalent reasons that influenced

students cyberloafing behaviours. Students are in several WhatsApp groups due to course demands such as sharing learning materials from lecturers with ease. Due to such technological advantage, some students tend to abuse the right use of internet devices by cyberloafing. Dursun et al., (2018) discovered that students used cyberloafing largely for social networking, which met their sociability and communication requirements. It is reasonable to argue that the tempting nature of social networking diverted students' attention away from courses and toward convenient networking/communication. Again, Varol and Yildrim (2019) illustrate that cyberloafing occurred when students expressed little or no likeness for certain courses or, on occasion, bias regarding a particular subject, inattention to a course and if students are uninterested in the course or its material, they divert their focus to something else that is more pressing at the time. Toker and Baturay, 2021, found factors that contributed to the explanation of cyberloafing behavior included lack of motivation. These findings corroborate the current study's findings. In relation to the factors associated with the course itself, unclear course objectives, inadequate time to complete class assignments, course content is readily available, unnecessary content and too difficult course content were the prevalent reasons students engaged in cyberloafing.

Effects of cyberloafing on academic performance

Respondents" perception about the effect of cyberloafing on their academics revealed that respondents agreed that online social networks distract their studies, the time they spend on social media takes away their time for studying. One other effect of cyberloafing on academic performance by respondents was that engaging in academic forums on social media

confuses them and that social media has negatively impacted on their writing skills. Respondents were also of the view that they will not perform well in their academics even if they stopped using social media. However, respondents engage in academic discussions on social media platforms online with friends and use social media to share/receive information from their colleagues. Respondents relied on information from the internet to do their homework and that the use of social media for research has helped improve their grades. Most respondents specified that generally, social media has impacted their GPA negatively.

The study found both positive and negative effects of cyberloafing activities. Thus, in the present study, while cyberloafing may contribute to students understanding of course content such as using social media for research, cyberloafing also distracts them from classroom activities. Therefore, when handled poorly, cyberloafing could be detrimental to students" academics. Previous research has demonstrated that in the academic context, cyberloafing includes behaviours that do not support the optimization of the learning process, which is currently supported by the present study. Looking for news information that is not related to learning materials, playing games, chat with friends, or other forms of cyberloafing can disrupt academic processes, such as discussion, material understanding, recall, and completion of tasks (Yuwanto, 2018).

This implies that, cyberloafing may have significant adverse effects on students" academic progress. Nwakaego, and Angela, (2018) also found that students were not satisfied with their academic performance, due to the fact that cyberloafing makes them to procrastinate in their studies. Again, Akgun

(2020) also found both positive and negative effects of cyberloafing among students. These include disinterest in course contents leading to poor academic performance, as well as positive effects such as facilitating learning. The current study does find that cyberloafing may have both negative and positive effects among students.

Minimising cyberloafing activities among students

Respondents" opinions were solicited on measures to curb cyberloafing. The study identified four major themes. These themes included the provision of relevant materials to enhance academic activities, education of students on cyberloafing activities, adequate engagement of students during lectures and enforcement of rules and regulations. Other researchers found similar results. Varol, and Yildirim (2019) indicate that preventing cyberloafing requires teachers to participate in professional development programmes to improve the lecture method which is used and ensure the efficient use of TLMs. Again, urging teachers to properly communicate course objectives and selecting suitable content will keep students active and prevent cyberloafing.

Additionally, students must arrive to class prepared to participate in the class discussion. According to Akgün (2020), professors submitted a variety of recommendations to keep pupils from actions related to cyberloafing during classes, and several themes were developed in response to such recommendations. "Giving Seminars" is one of them. Their opinion was that they should educate children about the usage of technology and conduct seminars in schools. These measures when implemented have the tendency to prevent cyberloafing among students.

Gender and cyberloafing

An independent samples t-test was conducted to compare the frequency of cyberloafing activities scores for males and females. Results of the t-test revealed that there was no statistically significant difference in cyberloafing activities scores for males and females. This means that when it comes to cyberloafing activities there is no difference between males and females. Gender disparities are one of the most well researched aspects of cyberloafing. Gender had a favourable influence on cyberloafing, according to Baturay and Toker (2015), with male learners engage in more online browsing than female pupils. According to Yilmaz, Yilmaz, Ztürk, Sezer, and Karademir (2015), male students received an average score of 65.14 on the cyberloafing activities scale, while female students had an average score of 55.03. When looking at the scale as a whole, the degrees of cyberloafing among students reveal statistically significant differences. This means that, male students engage in more cyberloafing than female students. Among university students, Zcan, Gökçearslan, and Yüksel (2017) discovered a substantial difference between male and female cyberloafing habits. Male students are more likely to cyberloaf than female pupils.

In an online survey, Akbulut et al. (2017) discovered that online Turkish males' total cyberloafing scores were substantially higher than females', having a small magnitude of influence. Knight, (2017) found the opposite. Knight (2017) discovered that among undergraduate students at a big South-eastern University, women reported using mobile phones considerably more frequently than males (176). The current study found no difference between females and males in cyberloafing activities. this is not surprising

because the most prevalent cyberloafing activity was playing games and both males and females find it easy to access games on their smartphones at any point during their lectures.

Age and cyberloafing

An independent samples t-test was conducted to compare the frequency of cyberloafing activities scores for young adults (18-25), and adults (26 and above). Results of the independent samples t-test revealed that there was a statistically significant difference in cyberloafing activities scores for the two groups. This means that when it comes to cyberloafing activities, young adults engages in cyberloafing activities more than adults. As such, the two group of people differ in terms of their engagement in the cyberloafing activity. Ahmad and Omar (2017) found similar results. Ahmad and Omar found that between younger and older employees, there was a noticeable difference in their cyberloafing behaviours, as young employees were found to have engaged in cyberloafing behaviours more than the older employees.

Programme differences in cyberloafing activities

An independent samples t-test was conducted to compare the frequency of cyberloafing activities scores for education and community health nutrition. Results of the t-test revealed that there was no statistically significant difference in frequency of cyberloafing activities scores for education and community health nutrition. This means that there is no statistically significant difference in cyberloafing activities in relation to programme of study. Comparing the means, education students did not engage in cyberloafing activities more than community health nutrition students. One would have thought that due to the nature of their programmes, education

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students would have engaged in cyberloafing more than community health nutrition students. Community health nutrition deals primarily with practical and hands-on sessions and as such would require more offline practice whiles education programmes primarily deals with research which usually require an online search for information.

Furthermore, due to the practical nature of the community health nutrition program where students are always engaged in hands-on activities, cyberloafing activities should have been low as compared to education studies. However, these reasons could not contribute to a statistically significant difference in frequency of cyberloafing as highlighted by the current study. Relatively very little studies have been conducted on the programme differences in cyberloafing activities. This research provides new evidence in this regard.

Impact of cyberloafing on academic performance

A simple linear regression was conducted to find out the impact of frequency of cyberloafing activities on students" academic performance. The study revealed that cyberloafing was not a significant predictor of student academic performance. The researcher failed to reject the null hypothesis that there is no statistically significant impact of cyberloafing activities on students" academic performance. This means that, students" cyberloafing activities do not have a statistically significant effect on students" academic performance. Ozcan, Gökçearslan, and Yüksel (2017) discovered that there was no link between students' cyberloafing habits and their willingness to succeed in academics. Because of this, it is possible that a student's drive to study has little to do with his or her internet browsing habits.

Thus, students" performance could be explained by other factors such as time spent reading after class or out of class collaborative learning as is common in most tertiary institutions. Santos (2016), however found opposing results. Santos indicated that cyberloafing has a negative effect on both cognitive and motor performance. Raza, Yousufi, Rafi, and Javaid (2020) also added that smartphone addiction decreases academic performance of students as students lower their focus on academic learning and get addicted to smartphones for cyberloafing. Thus, when it comes to the impact of cyberloafing activities, literature reports different findings. Others indicated a negative whiles others indicate no effect. The current study found no impact of cyberloafing on academic performance.

Summary

The findings of the study showed that students practice a lot of cyberloafing which in turn affects their academic performance. They visit sites which do not have special importance to their academics or their needs except that it serves as a means of stress releasement from the activities of the school or at home where they can also do what makes them happy.

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

The goal of this study was to investigate the cyberloafing activities carried out by university learners, the motives for their participation, and the influence of these activities on their academic performance. This chapter provides an overview of the investigation, as well as the results and suggestions that were reached.

Summary

Overview of the study

Students from the University for Development Studies (UDS) in Tamale participated in the study, which looked at cyberloafing in higher educational institutions, including its prevalence, reinforcers, and control techniques. In accordance with the positivist paradigm, this research was conducted under the guidance of goals, which were converted into five research questions and four hypotheses. The descriptive survey design was used in this investigation, which yielded the following results: The study's target population consisted of all students enrolled in the Basic Education, Early Childhood, and Community Health Nutrition programs at the University for Development Studies, Tamale. For this study, the available population consisted of level 200 and 300 students who were enrolled in courses such as Basic Education and Early Childhood (463) and Community Health Nutrition (340). However, the study's sample size was sufficient, with 210 education students and 181 community health nutrition students participating. As a result, 391 students participated in the research.

Questionnaires were adapted and modified from (Sutarno, 2019) to conduct the research since they allow for organized and open responses from a large number of participants on a range of subjects. The descriptive statistics method was used to analyze the data for research questions 1, 2, 3, 4, and 5. (frequency and percentages). The t-test for independent samples was used to test hypotheses one, two, and three, respectively. The fourth hypothesis was investigated using basic linear regression.

Key findings

The following findings emerged from the investigation:

1. In relation to the types of cyberloafing, respondents agreed that they engaged in all types of cyberloafing activities. However, more than half indicated they play online games during lectures. This was the highest reported activity engaged in during lectures.

2. The frequency of engaging in cyberloafing activities revealed that respondents engaged in cyberloafing activities on average 2-3 times a day, but can last for 4-6 hours daily.

3. Again, factors that reinforced students to engage in cyberloafing activities included lecturers limited methods of teaching, ineffective use of TLMs, poor communication skills, and not engaging students.

4. In relation to academic engagement, respondents agreed that online social networks distract their studies. Furthermore, respondents also agreed that the time they spend on social media also takes away their time for studying.

5. On preventing cyberloafing acts and minimizing its prevalence, respondents proposed provision of relevant materials to enhance

academic activities, education of students on cyberloafing activities, adequate engagement of students during lectures and enforcement of rules and regulations.

6. Results of the t-test revealed that there was no statistically significant difference in cyberloafing activities scores for males and females.

7. Results of the t-test also revealed that there was a statistically significant difference in cyberloafing activities scores for young adults and adults.

8. Furthermore, there was no statistically significant difference in cyberloafing activities in relation to programme of study

9. Again, students" cyberloafing activities do not have a statistically significant effect on their academic performance.

Conclusions

Based on the data, it can be inferred that 10 cyberloafing activities were the most popular among those who participated in the survey. Playing online games during lectures, on the other hand, was the most popular cyberloafing pastime among students. Another activity that occurred during lectures was checking/sending emails, as well as perusing the internet for material that was unrelated to the presentation. From this, it can be stated that the vast majority of participants engage in cyberloafing activities on a regular basis and that they devote a large amount of their time to these activities.

The findings of this study also suggest that instructor variables were the most important elements influencing students' participation in cyberloafing activities. According to the findings of the study, lecturers' restricted ways of teaching, inadequate use of TLMs, poor communication skills, and failure to

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engage students are all factors that contribute to students' participation in cyberloafing activities. Again, respondents agreed that online social networks are a distraction from their academics, and that the time they spend on social media takes away from their ability to concentrate on their work or studies.

Respondents further argued that, in order to combat the threat of cyberloafing, rules and regulations governing internet use among students must be established and implemented, and that institutions should enact legislation that would limit students' use of mobile phones during lectures. It is also established that students' cyberloafing behaviors were not significantly different based on their gender and program of study. However, there was a statistically significant difference with age as young adults engage in cyberloafing activities more than adults. Finally, pupils' academic performance was not adversely affected by their cyberloafing behaviors.

Recommendations

Following the findings of the study, the following recommendations are made:

1. Management of universities through the findings of this study are recommended to implement policies and programs that seek to regulate the content and internet usage among students at the various tertiary institutions.

2. Students complained of limited methods of teaching amongst lecturers and as such, lecturers should also adopt teaching methods that engage students fully so that they make the students active during lessons and prevent cyberloafing activities. Again, laws should be made to regulate cell phone or laptop usage in universities.

3. Various interactive teaching sessions should be employed by lecturers to entice the student's wo enjoy their lectures which would in turn limit the time spent by these students cyberloafing after a stressful day at school.

4. Sensitization should be done for the students to entreat them to beware of the impacts of cyberloafing on their performance and their try to devise new ways to entertain themselves at home.

Suggestions for Further Research

1. It is recommended that future studies should involve online learners. As such future studies should be extended to students who engage in cyberloafing activities through online learning such as through zoom, google meet etc.

2. It is also recommended that future studies adopt a mixed approach to get more in-depth and detailed information emanating from reasons why students engage in cyberloafing activities.

3. Moreover,it is recommended that this studyshould be replicated at othe r Universities to compare findings.

4. Further studies in this area are recommended to also investigate cyberloafing activities with other programmes other than education and community health nutrition.

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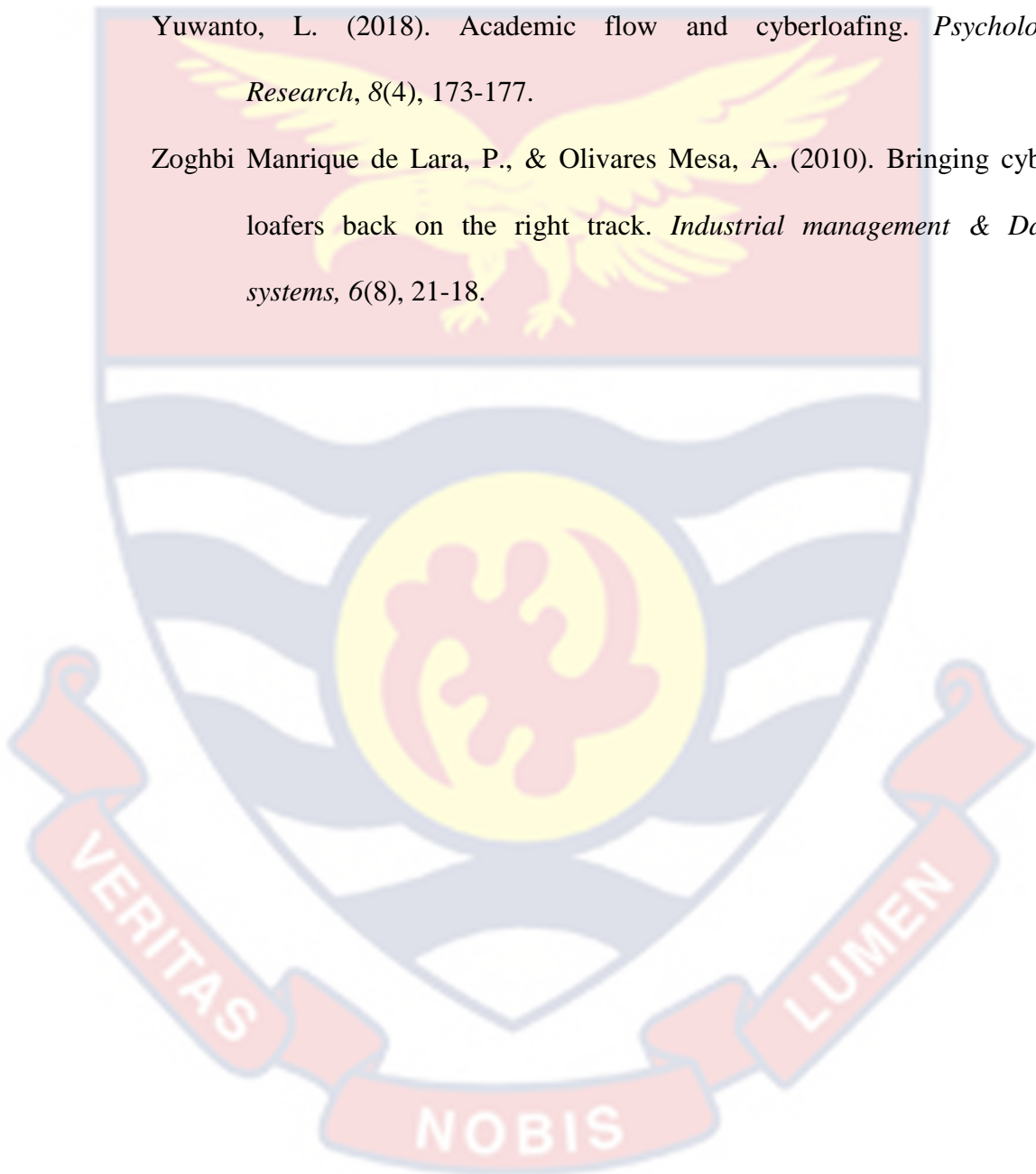
APPENDICES

APPENDIX A

UNIVERSITY OF CAPE COAST

DEPARTMENT OF EDUCATION AND PSYCHOLOGY

RESEARCH QUESTIONAIRE

Dear Respondents,

You are being invited to participate in a research study on Cyberloafing activities among University and its impact on learners" academic performance in the University for Development Studies - Tamale. I wish to assure you that this questionnaire is strictly for academic purpose and as such, all information obtained through this medium shall be treated as confidential and used for the purpose for which it is collected. Please be honest in your responses. The survey will take approximately 10-15 minutes to complete. Please read carefully and tick the appropriate choice for each statement.

SECTION A

Demographic Information

Please fill in the required information below: Please tick [√] the appropriate box

1. Sex: Male [   ]   Female [   ]

2. Age range: Young Adult (18-25) [   ]   Adult (26 and above) [   ]

3. Program of study……………………………………………………

4. Level: 200   [   ]   300   [   ]

5. CGPA (E.g., 3.9/4): ………………………

6. Do you use an internet-connected device? Yes [   ]   No [   ]

7. How many times do you use the internet connected device daily? [   ]
    1-3 times [   ] 4-6 times [   ] 7-9 times [   ] 10-12 times [   ] 13 times or more [   ]

8. Which of the following device do you use? (**Choose as many as applicable**)

    Desktop [   ]   Laptop [   ] School Computer [   ]

9. How often do you use internet for your personal activities during lessons?

Very rarely (1 hour or less) [   ]   Rarely (1-2hours) [   ] Sometimes (2-4hours) [   ] Often (4-6hours) [   ] Always (6hours or more) [   ]

SECTION B

Table 1: Types of cyberloafing activities students engaged in during lectures

Please tick **[√]** the type of cyberloafing activities you engage in. Tick all that is applicable

S/N	Statement	[√]
1.	Social networking	
2.	Chatting online	
3.	Playing online games	
4.	Visiting sports sites	
5.	Watching videos/downloading movies	
6.	Checking/sending emails	
7.	Downloading materials	
8.	Browsing the internet	
9.	Reading online news	
10.	Shopping online	

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Table 2: Frequency of Cyberloafing activities practiced during lectures

Never = does not engage in the type of cyberloafing at all. Sometimes= on average once or twice a day. Often = on average 2 to 3 times a day. Very often= more than three times a day

Please tick [√] the appropriate box

S/N	Statement	Never	Sometimes	Often	Very Often
1.	I visit social networking sites during class.				
2.	I chat online during class.				
3.	I play online games during class.				
4.	I visit sports sites during lectures.				
5.	I watch videos/movies during class hours.				
6.	I check/send emails during class.				
7.	I download materials during class.				
8.	I browse the internet for information unrelated to the lecture.				
9.	I read news from the internet in class.				
10.	I shop online during classes.				

Other Reasons…………………………………………………………….

Table 3: Reasons students engage in Cyberloafing activities during lectures

Please tick [√] the appropriate box

Reasons	S/N	Statement	Strongly Disagree	Disagree	Agree	Strongly Agree
Reasons associated with Lecturer	1	Does not teach well				
	2	Limited methods of teaching				
	3	Ineffective use of TLMs				
	4	Poor communication skills				
	5	Does not engage students e.g., ask questions				
Reasons associated with student	1	Tiredness / fatigue				
	2	Lack of motivation e.g., good remarks				
	3	Private matters				
	4	Lack of concentration				
	5	Too many friends e.g., belonging to several WhatsApp groups				
Reasons associated with course	1	Course is too difficult				
	2	Course objectives were not clear				
	3	Not enough time to complete class assignments				
	4	Content is readily available				
	5	Unnecessary content				

Other reasons: ………………………………………………………………

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Table 4: Effects of Cyberloafing activities on student academic engagement

Please tick [√] the appropriate box

S/N	Statement	Strongly Disagree	Disagree	Agree	Strongly Agree
1	The time I spend online on social media takes away my time for studying				
2	Online social networks distract my studies				
3	Engaging in academic forums on social media confuses me				
4	Social media has negatively impacted my writing skills				
5	Social media have impacted my GPA negatively				
6	I will not perform well in my academics even if I stop using social media				
7	I engage in academic discussions on social media platforms online with friends				
8	I use social media to share/receive information from my colleagues				
9	I rely on information from the internet to do my assignments.				
10	The usage of social media for research has helped improve my grades				

SECTION C

In your opinion, state one specific way in which Cyberloafing activities among students can be curbed during lectures?

…………………………………………………………………………………………

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THANK YOU SO MUCH FOR YOUR TIME AND EFFORTS
GOD RICHLY BLESS YOU.

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APPENDIX B

ETHICAL CLEARANCE

UNIVERSITY OF CAPE COAST
COLLEGE OF EDUCATION STUDIES
ETHICAL REVIEW BOARD

UNIVERSITY POST OFFICE
CAPE COAST, GHANA

Our Ref: CES-ERB/ucc.edu/V5/21-58

Date: 17th June, 2021

Your Ref: ....

Dear Sir/Madam,

ETHICAL REQUIREMENTS CLEARANCE FOR RESEARCH STUDY

Chairman, CES-ERB
Prof. J. A. Omotosho
jomotosho@ucc.edu.gh
0243784739

Vice-Chairman, CES-ERB
Prof. K. Edjah
kedjah@ucc.edu.gh
0244742357

Secretary, CES-ERB
Prof. Linda Dzama Forde
lforde@ucc.edu.gh
0244786680

The bearer, Mohammed Fusheini, Reg. No. EF/PPE/19/0011, is M.Phil. / Ph.D. student in the Department of Education and Psychology in the College of Education Studies University of Cape Coast, Cape Coast, Ghana. He / She wishes to undertake a research study on the topic:

Cyberloafing activities among university students: Its impact on learners' academic performance

The Ethical Review Board (ERB) of the College of Education Studies (CES) has assessed his/her proposal and confirm that the proposal satisfies the College's ethical requirements for the conduct of the study.

In view of the above, the researcher has been cleared and given approval to commence his/her study. The ERB would be grateful if you would give him/her the necessary assistance to facilitate the conduct of the said research.

Thank you.
Yours faithfully,

Prof. Linda Dzama Forde
(Secretary, CES-ERB)

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APPENDIX C

INTRODUCTORY

UNIVERSITY OF CAPE COAST
COLLEGE OF EDUCATION STUDIES
FACULTY OF EDUCATIONAL FOUNDATIONS
DEPARTMENT OF EDUCATION AND PSYCHOLOGY

Telephone: 0332091697		UNIVERSITY POST OFFICE
Email: dep@ucc.edu.gh		CAPE COAST, GHANA

Our Ref.

Your Ref.

16th February, 2021

TO WHOM IT MAY CONCERN

Dear Sir/Madam,

THESIS WORK
LETTER OF INTRODUCTION: MR. FUSHEINI MOHAMMED

We introduce to you Mr. Mohammed, a student from the University of Cape Coast, Department of Education and Psychology. He is pursuing a Master of Philosophy degree in Educational Psychology and he is currently at the thesis stage.
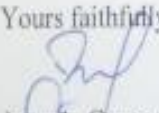
Mr. Mohammed is researching on the topic: "CYBERLOAFING ACTIVITIES AMONG STUDENTS."

He has opted to collect or gather data at your institution/establishment for his Thesis work. We would be most grateful if you could provide him with the opportunity and assistance for the study. Any information provided would be treated strictly as confidential.

We sincerely appreciate your co-operation and assistance in this direction.

Thank you.

Yours faithfully,

Anna A. Ocran (Ms.)
Principal Administrative Assistant
For: **Head**