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**Attitude, Anxiety, and Technostress as a correlate of the use of mobile phones by  
Undergraduate Students in a Delta State University (DELSU), Abraka**

By

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**Abstract**

This study assessed attitude, anxiety, and technostress as a correlate of the use of mobile phones by undergraduate students in Delta State University (DELSU), Abraka. The total population for this study was 6,675 undergraduate students registered with the library of Delta State University in the 2019/2020 academic session. The instrument used for data collection was a structured questionnaire which was designed in print formats. A total number of 1001 copies of the questionnaire were distributed to the respondents with the aid of 5 research assistant and a total of 797 questionnaires was duly completed and found usable for the study. There was 80% return rate. The data collected for this study were analyzed using simple percentage and frequency counts. The finding revealed that the undergraduates have a positive attitude towards the use of mobile phones. The finding also revealed that the majority of the respondents experience a high level of anxiety in their use of mobile phones. The finding shows clearly that the undergraduate students in DELSU use mainly Android phones, iPhone, and Blackberry. The findings revealed that the major effects of anxiety relating to the usage of mobile phones as indicated by the respondents are poor concentration and lack of interest in their academics and other events. The findings also show that the major effects of technostress relating to the usage of a mobile phone as indicated by the respondents is that they feel worn out most times after using their mobile phone. It was recommended that university management offering internet access within campuses should block some sites students spend hours using for non-academic purposes, an example is gambling sites, and regular training should be conducted for undergraduates on how to use their phones for accessing information and for other academic purposes.

**Keywords:** Attitude; Anxiety; Techno Stress; Use of Mobile Phones; Undergraduates; DELSU

## INTRODUCTION

The introduction and widespread use of information and communication technologies (ICT) have aided in bridging the information and communication divides that exist among people in the twenty-first century. The invention of mobile phones has been a significant catalyst in the digital world. According to Techopedia (2021), a cell phone is a portable handheld device that allows users to make calls and send text messages, among other things. The first cell phones were only capable of making and receiving calls. Smartphones are mobile phones that come with extra features such as web 2.0 software, games, navigation tools, email services, video players, cameras, web browsers, educational applications, and games, among other things.

According to studies, twenty-first-century adolescents are technologically savvy and spend a considerable amount of time surfing the internet on their internet-enabled phones (Mamudu & Oyewo, 2015). Furthermore, according to Coffin and Lyle (2013), the increased usage of mobile devices for educational purposes opens up a multitude of possibilities for technologies aimed at assisting students in achieving their learning goals and managing the complexities of college life. Students in Nigeria and around the world are increasingly using mobile phones to achieve educational goals. Students, on the other hand, must have the right mentality in order to successfully use mobile phones. Attitude is the predisposition or propensity to react positively or negatively to a specific concept, object, individual, or circumstance. The attitude of a person influences their behavior and reactions to obstacles, incentives, and rewards (iEduNote, 2021). Understanding the attitude of undergraduate students towards mobile phones would reveal their choice and perception towards the use of mobile phones. Furthermore, according to Sulleyman (2017), anxiety related to the use of mobile phones is known as nomophobia, which explains the panic or stress that certain people feel when they are unable to reach or use their phone. Scientists from the City University of Hong Kong and Sungkyunkwan University in Seoul believe it's because smartphones are so advanced and personal to us that they've become an extension of our lives (Sulleyman, 2017). Various innovations, such as television, cell phones, the internet, and computers, have changed how people think about health, education, entertainment, culture, and the economy over the last three decades (Hoffman, Novak, & Venkatesh, 2004).

Technostress, also known as technology stress, is an emerging psychological disorder that affects people who use technology (Tacy, 2016). Technostress is attributed by some scientists in the literature to excessive use of a technology, while others attribute it to addiction to a particular technology. This study focuses on the technostress experienced by undergraduate students as a result of their use of mobile phones. Anxiety and technostress are medical terms for a disorder centered on the use of technology by various socioeconomic groups in our society. General and chronic fatigue/worn out, an apathetic or pessimistic attitude, attention issues, muscle pain, and burnout are all symptoms of technostress (Richter, 2019). Sleeping comfortably becomes difficult as a result of technostress, as their overworked minds buzz and chatter, and calming leisure habits are disrupted by a preoccupation with to-do lists, Facebook and other social media, gaming, watching videos, and listening to music, to name a few. Headaches, irritability, forgetfulness, GI discomfort, heart attacks, and hypertension are all symptoms of techno stress. There appear to be few studies on attitudes, anxiety, and technostress as they relate to the use of mobile phones by Nigerian undergraduate students. As a result, the aim of this study is to fill a knowledge gap and suggest ways to reduce the level of anxiety and technostress faced by undergraduate students.

### **Statement of the Problem**

Undergraduates in this 21<sup>st</sup> century seem to be distracted than their counterparts that studied in the 80s due to the advent of information communication technology. Technologies in the form of mobile phones are handy and easy to carry about. Mobile phones have a lot of prospects for undergraduates if they use them for academic purposes and other information-seeking needs. It is pertinent to note that mobile phones in this 21<sup>st</sup> are packed with additional features such as games, gambling tools, social media, videos, audio, and other navigating tools. This additional feature has increased the usage of mobile phones by undergraduates which has to seem to be correlated to the poor academic performance of undergraduates, higher anxiety, and technostress which is not healthy.

Prior studies concentrated on the use of mobile phones by undergraduates, this is among the first few studies that deal with the attitude, anxiety, and technostress correlated to the use of mobile phones by undergraduates in a Nigerian state university. This lacuna in the literature prompted the need for this study.

## **Objectives of the Study**

The following research questions were formulated to guide the study:

- ✓ To find out the attitude of undergraduate students to the usage of mobile phones.
- ✓ To know the extent of anxiety on the use of mobile phones by undergraduate students.
- ✓ To know the preferred mobile phone used by undergraduate students.
- ✓ To understand the effects of anxiety and technostress on the usage of mobile phones by undergraduates students.

## **Research Questions**

The following research questions would be answered in the study:

- ✓ What is the attitude of undergraduate students to the usage of mobile phones?
- ✓ What is the extent of anxiety on the use of mobile phones by undergraduate students?
- ✓ Which is the preferred mobile phone used by undergraduate students?
- ✓ What are the effects of anxiety and technostress on the usage of mobile phones by undergraduates' students?

## **Literature Review**

### **The attitude of undergraduate students to the usage of mobile phones**

For students to be able to effectively utilise mobile phones they need to have the right attitude towards mobile phone usage. Attitude influences an individual's choice of action, and responses to challenges, incentives, and rewards (Business Dictionary, 2018). Wisnuwardana (2019) studied students' attitudes towards the use of smartphones as a tool for language learning. According to respondents' choices of slightly agree, agree, and completely agree to the survey items, the respondents have a good attitude toward smartphones in learning English either within or outside the classroom, as their overall mean suggested 4.35 as the lowest mean and 4.64 as the highest mean. However, Özlük (2012) carried out a study on the attitude of youth towards mobile phone use. The results of the study revealed that the majority of the students (189, 63%) responded that they use all of the mentioned functions of their mobile phones. As the analysis of the results revealed, the students seem to be relatively attached to their mobile phones as the

absence of it brings a feeling of discomfort and incompleteness. Similarly, Blasco (2016) undertook a study on students' attitudes towards integrating mobile technology into translation activities. The results of this study showed that students, when allowed to use their cell phones according to their own needs in collaborative learning, become more interested in their learning and can improve their English efficiency more than students in the conventional classroom.

### **Anxiety on the use of mobile phones by undergraduate students**

Medical News Today Editorial Team (2017) defined anxiety as a broad concept that encompasses a variety of conditions that cause nervousness, panic, trepidation, and concern. Anxiety, according to the Brain Charity (2020), can cause a person to believe that things in their lives are worse than they are, preventing them from facing their fears. The Chicago Tribune (2015) recently published a study by Twenge that found a correlation between the rise of smartphones and rising rates of depression, suicide attempts, and suicide among teenagers. The findings are based on data from the Centers for Disease Control and Prevention in the United States, as well as teen-related surveys. It emerged that between 2010 and 2015, feelings of hopelessness and suicidal thoughts increased by 12%. Nearly half of teens who spend five or more hours a day on a smartphone, laptop, or tablet have considered, contemplated, or attempted suicide at least once, compared to just 28% of teens who spend less than an hour per day on a mobile. Borreli (2013) reported Kent State University research that looked into the connection between regular cell phone usage and anxiety, life satisfaction, and a student's GPA in a broad group of college students. A total of over 500 undergraduate students were surveyed, evenly distributed by class (freshman, sophomore, junior, and senior). There were also 82 separate majors represented, all of which were self-reported. In comparison to their peers who allegedly used their mobile phones less, those with a high cell phone use had a lower GPA, higher anxiety, and lower satisfaction with life or happiness, according to the results. Vincent (2013) presented findings from a 500-student study conducted at Kent State University. Jacob Barkley, Aryn Karpinski, and Andrew Lepp led the study. High-frequency mobile phone users had a lower GPA [academic scores], higher anxiety, and lower life satisfaction than their peers who used the phone less often, according to the report.

## **The preferred mobile phone used by undergraduate students**

Ilako (2016) investigated university students' views and attitudes about the use of cell phones in libraries, using Makerere University Library as a case study. Both undergraduate and postgraduate students owned at least one form of cell phone, according to the study's findings. The majority of students use a traditional phone rather than a smartphone. Almasri (2014) investigated the use of mobile devices as learning tools among Amman University College's Higher Education and Undergraduate students. The study's findings revealed that the majority of participants own and use phones for academic purposes, especially Android devices and iPhones. Iqbal, Khan, and Malik (2017) investigated undergraduate students' perceptions of mobile phone use and M-Learning in Pakistan. According to the results, undergraduates mostly use Samsung, Nokia, Q-Mobile, Apple, HTC, and Sony Ericsson smartphones, among others. Ajilore and Solo-Anaeto (2016) looked at smartphone brand personality as a predictor of brand value in Babcock University undergraduates. The importance of brand personality among undergraduate smartphone users was investigated in this research. According to the results, Samsung is perceived to have an exciting, rugged, and sophisticated brand personality, Apple has an exciting, competent, and sophisticated brand personality, and Blackberry has a rugged and competent brand personality among undergraduates.

## **Effects of anxiety and technostress on the usage of mobile phones by undergraduates students**

According to Courtney (2017), when mobile phone use becomes an addiction, the action becomes stressful. People who are addicted to using their phones are likely to feel obligated to check them and become depressed if they can't, which contributes to mental health problems such as anxiety and depression. According to Courtney (2017), one out of every three smartphone users will wake up in the middle of the night to check their phones. The percentage of people between the ages of 18 and 24 is also higher. According to ABC NEWS (2017), excessive cellphone use can cause anxiety. According to the report, the majority of people have an emotional reaction that fills their bodies with stress hormones when they hear their phone go off. Elhai, Dvorak, Levine, and Hall (2017) studied problematic smartphone use: A conceptual overview and systematic review of relations between anxiety and depression psychopathology. The researchers found that smartphone use was associated with symptoms of anxiety and

depression, as well as the increased experience of stress. The more participants used their smartphones, the more likely they were to experience symptoms associated with these disorders and report being stressed. Conclusively, Thomee, Härenstam, and Hagberg (2012) conducted a prospective cohort study on computer use and stress, sleep disruptions, and depressive symptoms among young adults. At follow-up, both high and medium computer usage, relative to low computer use, were linked to sleep disturbances in men. Men's recorded sleep disruptions were positively associated with high email/chat use, but were negatively associated with perceived stress. High email/chat use was (positively) linked to some mental health outcomes in women, while medium computer gaming was linked to depression symptoms and CU without breaks to the majority of mental health outcomes. Computer Use causing lost sleep was associated with mental health outcomes for both men and women.

### **Research Methodology**

The descriptive survey research design was adopted for this study. The target population of the study was undergraduate students registered with the library of Delta State University. The total population for this study was 6,675 undergraduate students registered with the library of Delta State University in the 2019/2020 academic session. The instrument used for data collection was a structured questionnaire which was designed in print formats. A total of 15% of the total population was drawn via a random sampling technique, giving a sample size of 1001. A total number of 1001 copies of the questionnaire were distributed to the respondents with the aid of 5 research assistant and a total of 797 questionnaires was duly completed and found usable for the study. There was 80% return rate. The data collected for this study were analyzed using simple percentage and frequency counts.

### **Findings and Discussion**



## Section A: Analysis of the Demographic Distribution of Respondents

**Table 1: Questionnaire Response Rate**

No of Questionnaire Distributed	No of Questionnaire Retrieved	Percentage
1001	797	<b>80%</b>

It was revealed from Table 1 that a total of 1001 copies of the questionnaire were distributed to the respondents and 797(80%) copies were returned and found usable for the study. The response rate of 80% is considered appropriate for the study as the standard response rate for most studies is 60% (Dulle, Minish-Majanja & Cloete, 2010).

**Table 2: Distribution of Respondents by gender**

Sex	Frequency	Percentage
<b>Male</b>	487	61%
<b>Female</b>	310	39%
<b>Total</b>	<b>797</b>	<b>100%</b>

**Table 2** shows that 487(61%) of the respondents were male while 310(39%) were female. This represents the gender distribution of the respondents involved in the study.

**Table 2: Distribution of respondent's by Department**

Departments	Frequency	Percentage
English and Literary Studies	61	8%
Botany	47	6%
<b>Mathematics</b>	58	7%
Technical Education	38	5%
Social Science Education	127	16%
Economics	52	6%
Mass Communication	46	6%
Accounting and Finance	96	12%
Science Laboratory	54	7%
Medicine	32	4%
Library and Information Science	158	20%
Pharmacology and Toxicology	28	3%
<b>Total</b>	<b>797</b>	<b>100%</b>

**Table 2** revealed that the majority of the respondents were from the department of library and information science, this is followed according to frequency with social science education, accounting and finance, English and literary studies, mathematics, science laboratory,

economics, botany, mass communication, technical education, medicine and pharmacology, and toxicology

**Section B: Analysis of the questions relating to the main variables of the Study**

**Research Question 1:** What is the attitude of undergraduate students to the usage of mobile phones?

**Table 3:** Attitude of undergraduate students to the usage of mobile phones

**Note SA: Strongly Agree, A: Agree, D: Disagree, SD: Strongly Disagree**

S/N	Mobile Phone Usage Attitude Statement	SA	A	D	SD
a.	I feel comfortable when using a mobile phone for my information needs.	590 (74%)	172 (22%)	35 (4%)	-
b.	I feel great making friends and collaborating using a mobile phone.	611 (77%)	123 (15%)	42 (5%)	21 (3%)
c.	I feel using mobile phone to search for information is very frustrating	127 (16%)	22 (3%)	54 (7%)	594 (74%)
d.	I think navigating using my mobile phone is very easy	632 (80%)	98 (12%)	35 (4%)	32 (4%)
e.	I feel the use of mobile phones will change the way I meet my academic information needs.	771 (97%)	26 (3%)	-	-
f.	The use of a mobile phone for searching information is not in line with my value system.	21(3%)	65 (8%)	100 (13%)	611 (77%)
g.	I feel mobile phone is not convenient for doing assignments	24(3%)	59 (7%)	112 (14%)	602(75%)
h.	Mobile phones have made my research needs easier.	561 (70%)	213 (27%)	19 (2%)	4(1%)
i.	I feel with a mobile phone I am going to succeed in my academics	612 (77%)	111 (14%)	46 (6%)	28 (3%)

**Table 3** presents the responses depicting the attitude of undergraduate students to the usage of mobile phones. 74% of the respondents strongly agree and 22% agree that they feel comfortable when using a mobile phone for their information needs while only 4% disagree. 77% of the respondents strongly agree and 15% agree that they feel great making friends and collaborating using a mobile phone while only 5% disagree and 3% strongly disagree. 16% of the respondents strongly agree and 3% agree that they feel using a mobile phone to search for information is very frustrating while 7% disagree and 74% strongly disagree. 80% of the respondents strongly agree and 12% agree that navigating using their mobile phone is very easy while only 4% disagree and 4% strongly disagree. 97% of the respondents strongly agree and 3% agree that the use of a

mobile phone will change the way they meet their academic information needs. 3% of the respondents strongly agree and 8% agree that the use of a mobile phone for searching information is not in line with my value system while 13% disagree and 77% strongly disagree. 3% of the respondents strongly and 7% agree that mobile phone is not convenient for doing assignments while 14% disagree and 75% strongly disagree. 70% of the respondents strongly agree and 27% agree that mobile phones have made their research needs easier while 2% disagree and 1% strongly disagree. 77% of the respondents strongly agree and 14% agree feel that with mobile phones they can succeed in their academics while 6% disagree and 3% strongly disagree. This implies that the undergraduate students have a positive attitude towards the use of mobile phones.

**Research Question 2:** What is the extent of anxiety on the use of mobile phones by undergraduate students?

**Table 4: Extent of anxiety on the use of mobile phones**

**Note: VHE: Very High Extent, HE: High Extent, LE: Low Extent, VLE: Very Low Extent**

S/N	The extent of Anxiety Statement	VHE	HE	LE	VLE
a.	I feel very anxious to use my mobile phone	517 (65%)	228 (29%)	16 (2%)	36 (4%)
b.	I wake up severally at night to use my mobile phone and check updates	645 (81%)	112 (14%)	26 (3%)	14 (2%)
c.	I lost interest in other events when using my mobile phone	41(5%)	112 (14%)	87 (11%)	557 (70%)
d.	When my mobile phone is off I feel very incomplete	659 (83%)	121 (15%)	9(1%)	8(1%)
e.	I feel sad when my phone has any technical issue	701 (88%)	96 (12%)	-	-
f.	Anytime I run out of data to surf the internet, I feel very sick	416 (52%)	381 (48%)	-	-
g.	Without my mobile phone, my heartbeat fast	677 (85%)	112 (14%)	8(1%)	
h.	I feel less happy as a result of anxiety	745(93%)	52(7%)		

**Table 4** presents the responses depicting the extent of anxiety on the use of mobile phones by undergraduate students. 65% of the respondents indicated Very High Extent and 29% High Extent that they feel very anxious to use my mobile phone while 2% Low Extent and 4% Very Low Extent. 81% of the respondents indicated Very High Extent and 14% High Extent that they wake up severally at night to use their mobile phone and check updates while 3% indicated Low Extent and 2% Very Low Extent. 5% of the respondents indicated Very High Extent and 14% High Extent that they lost interest in other events when using their mobile phone while 11% indicated Low Extent and 70% Very Low Extent. 83% of the respondents indicated Very High

Extent and 15% High Extent that when their mobile phone is off they feel very incomplete, while 1% Very Low Extent and Low Extent. 88% of the respondents indicated Very High Extent and 12% High Extent that they feel sad when their phone have any technical issue. 52% of the respondents indicated Very High Extent and 48% High Extent that anytime they run out of data to surf the internet, they feel very sick. 85% of the respondents indicated Very High Extent and 14% High Extent that without their mobile phone their heart beat fast, while only 1% disagree. 93% of the respondents indicated Very Large Extent and 7% Large Extent that they feel less happy due to anxiety. The finding implies that the respondents experience a high level of anxiety in their use of mobile phones.

**Research Question 3:** Which is the preferred mobile phone used by undergraduate students?

**Table 5: Preferred mobile phone used by undergraduates in DELSU**

S/N	Preferred Mobile Phone	Frequency	Percentage
a.	Android Phone	424	53%
b.	iPhone	213	27%
c.	Blackberry Phone	94	12%
d.	Symbian Phone	43	5%
e.	Windows Phone	23	3%
<b>TOTAL</b>		797	100%

**Table 5** presents the responses depicting the preferred mobile phone used by undergraduates in Delta State University. 53% of the respondents indicated they use Android Phone, 27% indicated they use iPhone, 12% of the respondents indicated they use Blackberry, 5% of the respondents indicated they use a Symbian Phone while only 3% indicated they use a Window Phone. This finding implies that the undergraduate students in DELSU use mainly Android phones.

**Research Question 4:** Effects of anxiety and technostress on the usage of mobile phones by undergraduates' students

**Table 6: Effects of anxiety and technostress on the usage of mobile phones**

S/N	Effects of Anxiety and TechnoStress on the Usage of Mobile Phones	Frequency	Percentage
<b>Effect of Anxiety</b>			
a.	Poor concentration and lack of interest in my academics and other events	749	94%
b.	Wake up regularly at night leading to poor night rest	619	78%
c.	Increase my anxiousness to use my Mobile phone for hours	571	72%
d.	Sickness and Headaches whenever my phone is off	491	62%

e.	Feel Depressed due to the usage of my mobile phone	411	52%
f.	Feeling Hopeless and Tired of life	321	40%
g.	Feeling Angry Always making me keep to myself	94	12%
<b>Effects of TechnoStress</b>			
h.	Feel Worn-out most time after using my mobile phone	611	77%
i.	Feel Depressed leading to Headacheafter using my mobile phone	583	73%
j.	The use of a mobile phone has effects on my social interaction	431	54%
k.	The use of a mobile phone has effects on my concentration	401	50%
l.	Feeling less happy	112	14%

In **Table 6** above, for effects of Anxiety on the usage of mobile phones by undergraduates, 94% of the respondents indicated poor concentration and lack of interest in my academics and other events, 78% indicated they wake up regularly at night leading to poor night rest, 72% indicated anxiety increases their anxiousness to use their mobile phones for hours, 62% indicated they feel sick and have headaches whenever their phone is off, 52% indicated they feel depressed due to usage of their mobile phone, 40% indicated they feel hopeless and tired of life due to anxiety, while 12% indicated they feel angry always making them keep to themselves.

Also, For effects of TechnoStress, 77% indicates they feel worn-out most times after using their mobile phone, 73% indicates they feel depressed leading to headache after using their mobile phone, 54% indicated the use of a mobile phone has effects on their social interaction, 50% indicated the use of a mobile phone has effects on their concentration, while only 14% indicated they feel less happy due to technostress associated with the usage of their mobile phone.

### **Summary of Findings**

1. The study revealed the attitude of undergraduates to the usage of their mobile phones. A majority of the respondents indicated they feel the use of a mobile phone will change the way they meet their academic information needs, a majority also feel great making friends and collaborating using their mobile phone. This finding is in concordance to the study of Blasco (2016) which revealed that students, when allowed to use their cell

phones according to their own needs in collaborative learning, become more interested in their learning and can improve their English efficiency.

2. The findings related to anxiety revealed that a majority of the respondents indicated they feel less happy due to anxiety to a Very High Extent, also the respondents indicated they feel sad when their phone has any technical issue to a Very High Extent. The respondents also indicated without their mobile phone their heart beat fast to a Very High Extent. This finding is in line with the report of Borreli (2013) on Kent State University which revealed that overall, those with high cell phone usage tended to have higher anxiety and lower satisfaction with life or happiness compared to their peers who reportedly used their cell phones less
3. The findings of the study indicated that a majority of respondents in this study uses Android Phones, followed by iPhone, Blackberry Phone, Symbian Phone, and Window Phone. This finding is in line with the study of Almasri (2014) on the usage of mobile devices as learning tools among Higher Education which revealed that participants currently own and use phones, particularly Android devices and iPhone for academic purposes.
4. The major effects of anxiety relating to the usage of mobile phones as indicated by the respondents are poor concentration and lack of interest in their academics and other events. These findings are in line with the report of Vincent (2013) on Kent State University studying 500 students which revealed that high-frequency cell phone users tended to have a lower GPA [academic scores], higher anxiety, and lower satisfaction with life relative to their peers who used the cell phone less often.
5. The major effects of technostress relating to the usage of a mobile phone as indicated by the respondents are that they feel worn-out most times after using their mobile phone, some others indicated they feel depressed leading to headaches. This finding is in line with the affirmation of Ritcher (2019) which posits that TechnoStress can make people feel general and chronic fatigue/ worn out.

## **Conclusion**

Mobile usage currently is in the increase by undergraduates in campuses in Nigeria and across the globe. The high usage of mobile phones by undergraduates has raised the level of anxiety and technostress faced by students. Mobile phone usage has both positive and negative impacts on undergraduates. The use of the mobile phone has changed the way undergraduates student meet their academic information needs as they can gain access to a whole of information at their convenience. On the contrary, high mobile phone usage is correlated to the poor academic performance of many undergraduates as they spend quality using their mobile phones for non-academic purposes leading to a poor concentration on their academics. High usage of mobile phones also has resulted to lower satisfaction with life or happiness by many undergraduates students. It is regrettable to note that high mobile phone usage also has resulted in depression and illness to many undergraduates which makes them feel worn out and tired of life.

This challenge of the usage of mobile phones has prompted some universities in Nigeria to ban the use of mobile phones on campuses a pertinent example is Covenant University. This study brings to light the need to control the use of mobile phones on campuses by university management, it is also necessary to note that this control ought to start from the home of the undergraduates as parents also have a focal role to play.

## **Recommendations**

Given the foregoing, the following recommendations are made:

- ✓ Parents should control their children's use of mobile phones before they enter any institution of higher learning to limit their excessive use of mobile phones.
- ✓ University management offering internet access within campuses should block some sites students spend hours using for non-academic purposes, an example is gambling sites.
- ✓ Social media and other Web 2.0 tools should only be allowed for collaboration and information sharing.
- ✓ During students' orientation, the effects of the excessive use of mobile phones should be discussed as it can lead to anxiety and technostress which can eventually affect their health, sleep, and happiness.

- ✓ Students identified facing anxiety and technostress associated with their use of mobile phones can be treated/ rehabilitated by subjecting them to training to survive without their phones and other sleep-related therapies.
- ✓ Regularly training should be conducted for undergraduates on how to use their phones for accessing information and for other academic purposes.

## References

- ABC News. (2017). *Excessive cellphone use may cause anxiety, experts warn*. Retrieved from <https://abcnews.go.com/Lifestyle/excessive-cellphone-anxiety-experts-warn/story?id=48842476>
- Almasri, A.K.M. (2014). Usage of mobile devices as learning tools among higher education and undergraduate student in Amman University College. *International Journal of Innovative Research in Computer and Communication Engineering*, 2(12), 7125- 7130
- Blasco, D. (2016). Students' attitudes towards integrating mobile technology into translation activities. *International Journal on Integrating Technology in Education*, 5(1), 1-11.
- Borreli, L. (2013). *Students' cell phone use may increase anxiety, decrease GPA and happiness: How less texting can improve your overall health*. Retrieved from <https://www.medicaldaily.com/students-cell-phone-use-may-increase-anxiety-decrease-gpa-and-happiness-how-less-texting-can-improve>
- Business Dictionary. (2018). *Attitude*. Retrieved from <http://www.businessdictionary.com/definition/attitude.html>
- Chicago Tribune. (2018). *Mobile phones linked to anxiety and severe depression in teens*. Retrieved from <http://yp.scmp.com/news/features/article/108242/mobile-phones-linked-anxiety-and-severe-depression-teens>
- Coffin, T., & Lyle, H. (2013). *The use of mobile devices for academic purposes at the University of Washington: Current state and future prospects*. Retrieved from <http://www.washington.edu/itconnect/wp-content/uploads/2013/10/The-Use-of-Mobile-Devices-forAcademic-Purposes-at-the-University-of-Washington1.pdf>
- Courtney, B. (2017). *How mobile phone usage can affect our mental health*. Retrieved from <https://www.brookhavenretreat.com/cms/blog-22/item/3038-cell-phone-usage-mental-health>



- Dulle, F., Minish-Majanja, M., & Cloete, L. (2010). *Factors influencing the adoption of open access scholarly communication in Tanzanian public universities*. Retrieved from <http://www.ifla.org/files/hq/papers/ifla76/138-dulle-en.pdf>
- Elhai, J.D., Dvorak, R.D., Levine, J.C., & Hall, B.J. (2017). Problematic smartphone use: A conceptual overview and systematic review of relations with anxiety and depression psychopathology. *Journal of Affective Disorders*, 207, 251–259.
- Hoffman, D., Novak, T., & Venkatesh, A. (2004). Has the Internet become indispensable? *Communications of the ACM*, 47(7), 37-42.
- iEduNote. (2021). *Attitude: Definition, nature, and characteristics (Explained)*. Retrieved from <https://www.iedunote.com/attitude-definition-characteristics-types>
- Ilako, C. (2016). University students' perceptions and attitudes towards the use of mobile phones in libraries: a case of Makerere University Library (Maklib). *Qualitative and Quantitative Methods in Libraries*, 5, 535-544.
- Iqbal, S., Khan, M.N., & Malik, I.R. (2017). Mobile Phone Usage and Students' Perception towards M-Learning: A Case of Undergraduate Students in Pakistan. *International Journal of E-Learning & Distance Education*, 32(1), 1-16
- Mamudu, P.A., Oyewo, A.O. (2015). Use of mobile phones for academic purposes by law students of Igbinedion University, Okada Nigeria. *International Journal of Library Science*, 4(4), 65-72. doi:10.5923/j.library.20150404.01
- Medical News Today Editorial Team. (2017). *Anxiety: Causes, symptoms, and treatments*. Retrieved from <https://www.medicalnewstoday.com/info/anxiety>
- Ozlu, M.Y. (2012). *Attitudes of youth towards mobile phone use*. Retrieved from <http://i-rep.emu.edu.tr:8080/xmlui/bitstream/handle/11129/1839/Ozlu.pdf?sequence=1>
- Ritcher, A. (2019). How your company can combat The effects of technostress. Retrieved from <https://www.forbes.com/sites/forbestechcouncil/2019/09/04/how-your-company-can-combat-the-effects-of-technostress/?sh=3db3e8c15c5b>
- Sulleyman, A. (2017). *Smartphone separation and anxiety: Scientists explain why you feel bad without your phone*. Retrieved from <https://www.independent.co.uk/life-style/gadgets-and-tech/news/smartphone-separation-anxiety-nomophobia-why-feel-bad-no-phone-personalised-technology-a7896591.html>

Tacy, J.W. (2015). *Technostresseffects on technology acceptance by nurse faculty*. Published Dissertation, Department of Nursing, University of Texas.

Technopedia. (2021). *Mobile phone*. Retrieved from <https://www.techopedia.com/definition/2955/mobile-phone>

The Brain Charity. (2020). *Anxiety*. Retrieved from <https://www.thebraincharity.org.uk/how-we-can-help/practical-help/information-advice/living-with-a-condition/anxiety>

Thomee, S., Harenstam, A., & Hagberg, M. (2012). Computer use and stress, sleep disturbances, and symptoms of depression among young adults – a prospective cohort study. *BMC Psychiatry*, 12,176.

Vincent, J. (2013). *New study links smartphone use in students with increased anxiety and bad grades*. Retrieved from <https://www.independent.co.uk/life-style/gadgets-and-tech/new-study-links-smartphone-use-in-students-with-increased-anxiety-and-bad-grades-8993945.html>

Wisnuwardana, I. (2019). Students' attitude towards the use of smartphones for language learning purposes. *Journal of English Teaching AdiBuana*, 4(2), 178-191.