

**DISTRACTIONS IN LEARNING INSTITUTIONS: AN  
EXPLORATIVE CASE ANALYSIS OF MOBILE DEVICE USAGE  
IN KENYAN ACADEMIA**

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## ABSTRACT

Mobile device usage among the student population in United States (US) learning institutions has tremendously increased and existing research reveals a correlation of mobile device usage and distractions in the classrooms. The purpose of this study was to determine if the increase of mobile device usage in classrooms was overbearing and distracting in Kenyan learning institutions as confirmed by research in the US. A survey of teachers and students in Kenya schools was conducted to test the impact if any of mobile device usage in classrooms and student performance or learning outcomes. Results confirmed that mobile device usage was prohibited and teachers in Kenya applied stern classroom rules to be abided by all students while in the classrooms to minimize distractions. In addition, the students affirmed that possession and usage of mobile devices were forbidden and lack of adherence to the policy was grounds for dismissal from the learning institutions. The results of our study discussed survey results from faculty and students to bring awareness that the use of electronics' in class is a major distraction to the learning and impediment to learning institutions.

**Keywords:** mobile devices, distractions, learning institutions

## 1.0 INTRODUCTION

Mobile devices are portable devices that were once viewed as gadgets affordable to high income or business people. In the recent years, mobile devices have become essential to our daily lives especially in the social domain and we continue to see an upward trend in productions, purchases, and consumers who cannot wait to get their hands on the new versions (Totten, Lipscomb, Cook, & Lesch 2007). According to Pew Research Center (2015) a market penetration of 64% Americans owned mobile devices; this number had increased from 58% from 2014. Pew Research Center (2015) confirmed that individuals relied on mobile devices usage as an essential connectivity to the virtual world. The findings by the Pew Research Center (2015) also validated that Mobile devices had become indispensable in our lives with 97% individuals using them for text message, 67% social media, 67% navigation system, and 68% using for breaking news.

When we see students walking around campus and even sitting in class with their heads down looking at their hand held devices are they using their devices for learning purposes or simply for leisure activities such as tweeting or updating face book profiles? Research findings confirmed that this epidemic behavior existed in the workplaces, office meetings, and class lectures thus contributing to reduction in quality, effectiveness, and efficiency (Dance, 2013; Duncan, Hoekstra & Wilcox, 2012; Tindell & Bohlander, 2012). In academia, research findings by Campbell (2006)

confirmed that majority of the students in class used their smart devices as a tool for connection with peers and were not always using their device to engage in learning activities. Similarly, the students in the classroom were engaged in activities such as accessing social networks, updating profiles, sending pictures, browsing the internet and even texting or emailing friends (Langmia & Glass, 2014; Mohd Suki, 2013; Tindell & Bohlander, 2012). The growth of the device usage was attributed to the current social trend and accessibility to multiple innovative applications from games, shopping, navigation group play, all types of sports, translators, and trip advisors to name a few (Tosta, 2014).

The inappropriate usage of mobile devices contributed to distractions where individuals did not focus on the task at hand or important goals (Bakos, & Treacy, 1986; Stephens & Davis, 2009). Teachers frowned when devices were used in class while the students believed they could multi-task and be actively engaged in lectures; a fact confirmed to be invalid as low achievement scores were documented among students who multitasked during class time (Dance, 2013; Peters & Peters, 2001).

In this study, the purpose was to determine if the increase of mobile device usage in classrooms was overbearing and distractive in Kenyan learning institutions as confirmed by research in the US. Specifically we share insight of existing research conducted by previous scholars on distractions correlated to mobile devices in US learning institutions; as we explore and determine if the same exists in Kenya learning institutions.

### **1.1 LITERATURE REVIEW**

In a survey of 269 college students in northern USA to understand the rate of recurrence in mobile devices usage in college classrooms, the results confirmed that 95% of students brought their phones to class while 92% used their phones when lectures were in session (Tindell & Bohlander, 2012). The usage of mobile devices in today's classrooms is in abundance and distractive from multiple types of ring tones to alerts from social media, emails, texts, games, and calendar reminders (Tindell & Bohlander, 2012). These alerts contribute to distractions as they coincidentally occur when faculty members are explaining critical points in their lectures (Gilroy, 2004). To deal with such behaviors in the classrooms some faculty members have ignored the alerts, showed their frustrations to the culprit, and even asked the students to leave the class (Gilroy, 2004). Prior research confirms that faculty members look for solutions on how to handle the mobile devices era and the distractions associated with the use of the devices in classrooms. Research was conducted by Langmia and Glass (2014) to determine if mobile device usage contributed to distractions in classrooms. The study consisted of 200 faculty members in US universities with results showing of a

considerable relation between phone usage and distractions in students learning (Langmia & Glass 2014). Additionally the faculty members were less tolerant of the behavior in their classrooms and reminded students to steer clear of their phones (Langmia & Glass 2014).

To comprehend the enormity of the problem in mobile devices usage by students attending colleges, data was collected from 383 mobile devices users residing in the US. The findings confirmed that usage of phones by students in learning institutions on purposes other than learning was inappropriate (Lipscomb et al., 2007). According to Pew Research Center (2015) 67% used mobile devices for social media; to recognize the influence of mobile devices usage in social and academic lives of university students, a sample of 1026 was conducted using survey data and time-diary (Jacobsen & Forste, 2011). The finding confirmed that students brought the devices to class and that their usage in classroom facilitated social networking and also negatively impacted their grades (Jacobsen & Forste, 2011). The usage of the devices impacted student success; those students who spent class time to check and update their social media connections experienced low academic achievement on the content covered in class (Rouis, Limayem & Salehi-Sangari, 2011). Additionally, students involved in use of mobile devices during lectures took a longer time to read content assigned during class time and had lower scores when tested on the reading comprehension of the content covered in class (Bowman, Levine, Waite, & Gendron, 2010).

An investigation to comprehend the student and faculty perceptions on mobile devices usage during class time, 978 surveys were completed of which 96 were faculty members and 882 were students (Baker, Lusk, & Neuhauser, 2012). The findings confirmed that undergraduate level students used their devices in class because they noted the use of devices was appropriate and not disruptive in class (Baker, Lusk, & Neuhauser, 2012). On the other, hand faculty members and graduate level students perceived the use of the devices as disruptive and were in agreement with the faculty to ban them in the classroom (Baker, Lusk, & Neuhauser, 2012). In a similar study with college student participants from Arizona and Illinois (US) revealed that the use of mobile devices was identified as a cause of distractions in class (Burns & Loheny, 2010). Similarly, to explore the challenges associated with mobile devices usage in college a survey of 176 faculty and students was conducted. The findings confirmed that the usage of the devices was severe and contributed to distractions in class especially ringing while lecture were in session (Campbell, 2006; Hammer et al., 2010). The findings also confirmed that although the ringing contributed to distractions; younger faculty were in acceptance of the device usage in classrooms while some senior faculty members restricted phone usage in their classrooms (Campbell, 2006). To tackle the epidemic of mobile devices usage in classrooms, faculty members

included ground rules for smart device etiquette in their syllabus and requested for students to stay on task, actively listen, and minimize distractions on self and others with the use of mobile devices during class time (Bugeja, 2007).

## **1.2 METHOD**

### **PURPOSE AND PROCEDURES**

The purpose of this study was to determine if the increase of mobile devices usage in classrooms was overbearing and distracting in Kenyan learning institutions as researched confirmed by research in the US. The selection of this research area was driven by the influx of mobile device usage in today's classrooms contributing to distractions and low academic achievement especially by students who facilitated social networking during class time (Jacobsen & Forste, 2011; Rouis, Limayem & Salehi-Sangari, 2011; Tindell & Bohlander, 2012). The guidance for selecting the appropriate research method for the study was in association with the existing literature. The qualitative method involves exploring the meaning of human experience (Hunt, 2011). The qualitative method enables the exploration of complex situations and focusing on individual meaning (Taylor, 2005). The qualitative method was appropriate for this study as the goal was to analyze to examine the relationship between the use of mobile devices among students and faculty members in Kenya learning institutions (Thomas, 2011). Qualitative research requires an attempt to capture the wholeness of experience followed by an attempt to communicate this understanding to others and requires an interest in some aspect of social life (Hunt, 2011). To gain insight into the mobile devices usage in Kenya a survey was designed that included 5 questions (see Appendix A) related to mobile device usage in classrooms from existing research studies done on students and teachers in the USA. The surveys were emailed to teachers and students in Kenya high school and Universities who were also asked to forward the survey to fellow colleagues. To ease difficulty, data collection and coding of the collected data the participants surveys sent to students were coded as Survey\_S and Survey\_T for teachers. The surveys were sent out via email to students and instructors in Kenya high school and Universities. Data analysis in this qualitative single-case study research consisted of reducing the data into themes with coding and condensing the codes. The data analysis was an inductive process in which themes and patterns emerged based on the interview transcripts without a pre-existing framework. For this research study, an inductive content analysis of the data involved coding, categorizing, and abstracting. The identification of themes and patterns aided our research of determining if the increase of mobile devices usage in classrooms was overbearing and distracting in Kenyan learning institutions as confirmed by research in the US. Data analysis in the current research study occurred from transcribing and coding the data from participant's surveys. We uploaded the document files into NVivo 10 software for qualitative content analysis.

### 1.3 POPULATION DESCRIPTION – STATISTICS

The eligibility and selection of sample size relied on the purposeful sampling strategy (Boeije, 2010). The eligibility criterion for research participation included participants that had access to mobile devices and attended an academic institution in Kenya. To obtain dependable knowledge for the research, permission was requested from high school and college institutions from the school principal and department directors. The Authors priority was to select varied participants based on the level of the institution they attended and their access to mobile device usage in academia. All potential and actual participants had the freedom to decline participation and not respond to questions they were not comfortable answering. In writing, we assured the participants' confidentiality, and the protection of the participants' identities by use of codes that included Survey\_S for students and Survey\_T for teachers. Participant sample as shown in Appendix B indicated that 28.6% of the total sample were University students where in their first, second, third, and fourth years of their academic coursework. Another population sample comprised 7.1% of University instructors. High school students were 47.6% of the total sample and high school instructors comprised 16.7% of the total population sample of 420.

### 1.4 STUDY FINDINGS

Interview Question 1: What is the perception of learning institutions in Kenya; do they permit students to use mobile devices in classrooms? The study results of 28.6% university student participants and 47.6% high school students shared that "instructors did not permit the use of devices in classrooms for both social and learning purposes because of recent incidents of minimal or lack of student attention while occupied with the devices." The findings of 7.1% university instructors and 16.7% high school instructors shared "my students always have their heads down and fingers busy with their mobile devices every time I come into the classroom and at times students don't acknowledge my presence until I start to speak." The results convey that the instructors shared their frustration of student device usage during class time at weekly open forums and voted to address the epidemic concern by banning use of devices in the classrooms. Additionally 7.1% of the university instructors and 16.7% of the high school instructors noted that "the bells and whistles to alert the users of incoming messages during class sessions was a nuisance thus impacting other students' learning attention as they took time to look around the classroom to identify the culprits." The findings confirmed that the birth of forbidding mobile device usage was credited to the forum meetings where all the instructors came into agreement to put an end to the dispersion of the mobile device usage in their classroom to minimize distractions during lectures. The study results confirmed further that instructors enforced the unwritten rule in their

respective learning institutions and those students spotted using their devices would be asked to immediately vacate the classroom and not to return for that specific session.

Interview Question 2: Are the smart devices used for other reasons besides learning tools in your classroom? The study results confirmed that the learning institutions in Kenya did not permit the use of any type of mobile devices during class time. Research findings confirmed by 16.7% of high school instructors shared that “our student involvement in the use of phones in classrooms during sessions contributed to diversions.” The 7.1% instructors from the university and 16.7% high school who participated in the study had concurrent answers on the use of phones on school classrooms “we need to institute rules forbidding the use of all types of mobile devices during class time to ensure that our students are not distracted and stop the usage of devices to cheat during exams.” The findings from 16.7% high school instructor participants confirmed that “any student caught using their devices during class time or on school grounds is sent home to bring their parents because the possession of devices is prohibited.” In addition, the results from 7.1% university instructors were that “the students caught using their devices during exams were subject to automatic dismissal from the learning institutions without any appeal.” The study findings confirmed that the instructors of respective surveyed learning institutions were adamant about the use of devices during classrooms especially during exams, “we don’t think that the notion of using Google to get an answer to a question as an effective way to educating, nurturing, and enhancing our young students minds to learn effectively.” Additionally, the student participants shared that “some of the students take the role of leaders and strictly abide by school rules and will report any students that possess or use their devices during class time.” The findings confirmed that both high school and university instructors relied on the help of students to pay keen attention and report suspicious activity of any student body using or in possession of mobile devices while on grounds.

Interview Question 3: Does the use of mobile devices contribute to distractions in basics for instructor agreements in classrooms especially when lectures are in session? All 16.7% high school instructors and 7.1% university instructors that participated in the survey were in agreement that “the use of mobile devices is not allowed in my classroom because of the contribution to distractions from the noisy alerts and the visual of students’ fingers and eyes being glued to the devices shows they aren’t paying attention to the lectures.” The results from 84 out of 120 students’ participants’ concurred that the use of mobile devices in class was a major source of distractions to the learning process. The findings confirm that mobile device usage was closely monitored in the surveyed Kenyan learning institutions. Additionally, the findings from high school participants confirmed that the use of and possession of the devices on the institution grounds was not permitted. On the other hand, the university student participants

shared that “our instructors expect us to pay keen attention during all classroom sessions with our eyes on the instructor with the exception of when taking notes.”

Interview question 4: How do instructors handle students using mobile devices in classrooms? The findings from instructors and student participants were parallel and confirmed that use of mobile devices in class was not permitted and was grounds for dismissal for surveyed high school institution. The instructors shared that “in any incident that I see my student’s use any mobile devices in my class, I immediately ask them to leave the classroom to set an example of non tolerance.” The 7.1% university instructor participants shared that the rule to ban mobile device use in classroom was applied campus wide. The 28.6% university student’s participants shared that “using mobile devices in class was grounds for dismissal by the instructor with no admittance back to class for the specific day.” In addition, 28.6% of the university student participants shared that “when our instructors see students using any mobile device, they immediately tell that student to leave the class on the first attempt, followed by a visit to school principal, and termination from the learning institutions for multiple violations.” The study findings confirmed that the formal unwritten rule as instituted by the university and high school instructors on mobile device usage during exam time was essential to ensure that students were maintaining academic integrity.

Interview question 5: What is the policy instituted by the learning institutions on the mobile device usage on school grounds? The results confirmed that the surveyed learning institutions enforced unwritten policy noting that the students were not permitted to bring their mobile devices to class. The 47.6% high school students shared that “the policy in our school is that when you are caught with a mobile device on school grounds you were on grounds for termination from the learning institution.” The 28.6% university student participants authenticated that “we are aware of the policy on mobile device possession and usage on campus grounds but at times we are not comfortable leaving the devices in our hostels in fear of them getting stolen.” University student participants shared that “we take a chance of carrying our mobile devices to class and because of the policy against the devices those who attempted to use devices during lecture sessions are banned from class for that specific day.” The university student participants confirmed that “depending on instructor’s leniency, some would take immediate action by escalating the case to school administrators as a way to set an example for other students of the repercussions faced when policies aren’t adhered to.”

### **1.5 RESEARCH LIMITATIONS**

The study was limited to one University and two high schools that would make it statistically impossible to replicate and generalize. Our recommendation based on the research findings, all institutions should incorporate the use



of mobile devices in their policies to enable students to access and use them productively. Further researchers should focus on increasing the number of higher learning institutions to better get a more generalized conclusion.

## **1.6 CONCLUSION/DISCUSSION**

The purpose of this study was to determine if the increase of mobile devices usage in classrooms was overbearing and distracting in Kenyan learning institutions as it is in USA. The findings confirmed that learning institutions in Kenya had strict policies in regards to the use of electronic devices during class time and within the institutions. The study findings substantiated that the strict policies on device usage instituted by learning schools in Kenya were set in place to minimize distractions in class and to ensure that students were paying attention to the lectures and adhering to academic integrity. The instructor participants shared that student suspension from learning institutions had occurred and instilled a source of fear in other students. The repercussions of using the devices were well known to students and there existed evidence of a catastrophic event where a secondary student ended their own life by jumping down an existing ditch to avoid facing school administrators' and parents. The catastrophe as reported by Egesa FM Radio Station (2015) noted that a student committed suicide after being reported to the school principal for using their mobile devices within the school compound.

The findings confirmed that mobile device usage in Kenyan classrooms was not overbearing and distracting as reported to be distracting in USA learning institutions because of the strict guidelines set in place. Kenyan students were aware of the enforced policy and the disciplinary actions set in place yet they would do whatever it took to get their hands on mobile devices but if caught with the mobile devices in school grounds or classrooms they faced dismissal. Existing literature documented low academic achievements for students not paying attention to the lectures but unconstructively using their devices during class time for activities such as texting, updating Facebook, and tweeting among others Rouis et al., (2011). If students are allowed to use mobile devices in real time the benefits are likely to outweigh the cost of having them. The research findings confirmed that students did express the willingness to use mobile devices in class but were afraid of the consequences. However those who participated in the survey confirmed that they benefited from their use even if the consequences were severe.

**1.7 APPENDIX A: QUESTIONNAIRE**

1. What is the perception of learning institutions in Kenya with regards to students' use of mobile devices in classrooms?
2. Are the smart devices used for other reasons besides as learning tools in your classroom?
3. Does the use of mobile devices contribute to distractions in classrooms especially when lectures are in session?
4. How do instructors handle students using mobile devices in classrooms?
5. What is the policy instituted by the university on the mobile devices usage in classrooms?

## 1.8 Appendix B: Population Sample

Participants	Population Sample	Percentage Response
University Students	120	28.6
University Instructors	30	7.1
High School Students	200	47.6
High School Instructors	70	16.7
Totals	420	100

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