

Hooked on The Screen: How Mobile Distractions Affect Student Achievement in Secondary Schools

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Abstract

The purpose of the current study is to ascertain how Secondary High School students view their school performance in connection with their use of smartphones. Many elements of our everyday lives have been impacted by the recent, rapid growth of cell phones, particularly for students. The current study aims to ascertain how cell phone use affects academic performance among male and female students at Uthal Secondary High School in Lasbela. The impacts of mobile phone or internet games among SHS in Uthal were the criteria utilized to gauge the outcome. The study's findings indicated that senior high school students' use of mobile phones hurts their overall academic performance. According to a survey, playing mobile devices or online games has a significant negative impact on student's academic performance, which can result in poor or low grades as well as physical suffering. The majority of respondents agreed that using a cell phone had a detrimental impact on their studies and health. Students should exercise restraint when it comes to playing mobile or the internet even though they might still complete their academics satisfactorily. However, the author contends that the usage of mobile devices in education by young people must be considered by mobile device manufacturers.

Keywords: Smartphones, Academic Performance, Secondary School, Phone Technology.

Introduction

Mobile phones are becoming more and more common; young people, in particular, use them more frequently for social contact and have more opportunities to form social connections (Garg & Moreno, 2019). Mobile phones are seen as crucial communication tools and have become an essential component of society; they serve as both a means of communication and an essential piece of clothing (Oksman & Rautiainen, 2017). More people are choosing to use mobile phones instead of landlines. Everyone is aware that the use of mobile devices has altered how society runs (Ahmed et al., 2019). For the young generation, this device has become a “social fashion” Students use mobile phones for various functions such as video, pictures, games, contacts with parents and friends, making and establishing romantic relationships, alarms, clocks, and time, about location identity, internet, downloading, sending, and receiving calls and text, etc (Hayat et al., 2021). The

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mobile phone permits the user to make “their own at-home “situation without considering where a person finds himself physically (Yamagami et al., 2022).

The creative use of mobile phones increases tremendous comfort in life (Bhat & Alqahtani, 2021). There are many advantages of mobile phone use but no one denies the disadvantages of mobile use and its impact (Nikolopoulou, 2020). Many reports and research studies indicate that it has led to several issues in schools (Burden et al., 2019). The use of a mobile phone intertwines a student's function with other roles in a way that detracts from and interferes with learning and academic achievement (Kuhfield & Tarasawa, 2020). In addition, students encountered several issues with using mobile devices for school, such as time constraints, small screens, low awareness, and a lack of opportunities for good mobile phone use instruction. Research study findings showed that students' GPA is significantly impacted by using a mobile phone in higher education. The use of several apps by students, such as Facebook, TikTok, and WhatsApp, has an impact on their academic performance. The results demonstrated a detrimental relationship between excessive mobile phone use and a falling GPA.

Students who fail the exam do not give due attention to class work. Even during breaks, leisure time, and idle periods, they use their mobile devices (Ullah et al., 2021). Each individual's life is profoundly affected by global technology and its changes (Pearce et al., 2019). Nowadays, society is increasingly accepting of communication and technological advancements (Hampton, 2016). Better learning results, higher student engagement, and the convenience of informing students about tasks are just a few advantages of using cell phones as a teaching tool (Dias & Victor, 2022). The majority of college students, unfavorably use their phones. The study's conclusions showed that he was distracted by his phone during the lecture and was unaware of the subject matter when the class ended. Individual's ability to connect appropriately face-to-face with friends, coworkers, family, and especially parents may be adversely affected by increased internet use, according to several psychological studies.

Objectives

1. To see the impact of mobile phone use on academic performance in Uthal Balochistan's senior secondary schools for both male and female students.
2. To check physiological behavior and implications on senior secondary students.

Questions

1. What are the opinion of students' family members toward the impact of mobile phone use on academic performance in Uthal secondary schools for both male and female students?
2. What are the physiological effects of mobile phones on senior and junior secondary students?

Hypotheses

H0: The playing of mobile phones has a considerable impact on the student towards their behavior.

H0: Playing on a mobile device significantly affects academic performance.

Literature Review

Smartphones have emerged as one of technology's greatest assets in the modern era (Steinhubl et al., 2015). Mobile devices are most frequently used by young people. The resources available on today's mobile devices are infinite and can be utilized for a multitude of purposes (Barnes, 2002). More recent studies use a range of academic performance metrics and operationalize cell phone use as calling and texting (Lepp et al., 2015).

Researchers have discovered that using cell phones in class has negative effects. Mobile phones are "at cross purposes with the mission of the school. According to Ruiz-Calleja et al. (2023), students are expected to fulfill their allocated obligations while in class, concentrating solely on their academics and avoiding outside contact. Mobile phones have proliferated and parents have become more dependent on them for communication, gadgets are becoming a standard sight in schools (Muliyah et al., 2022).

Smartphones Effect on Education

In the past few decades, information and communication technology (ICT) has been incorporated into teaching and learning in higher education, and smartphones have an impact on education because they are seen as a necessary component that must adapt to the growth of the social environment (Mustafaoğlu et al., 2018). An additional study on how mobile communication technology affects the quality of in-person interactions between people found that using mobile devices diminishes the depth and connection of conversations, with this effect being particularly evident when talking about personally significant topics.

Smartphone's Effect on Social Interaction

Human existence depends on our capacity for communication. This exemplifies how swiftly technology is developing to satisfy human needs. Technology has improved communication between people, which has an effect on how it is done in today's society. When people communicated while using mobile devices, there were reported to be lower levels of empathy concerns, whereas people who communicated without using mobile devices displayed higher levels of empathy. The prevalent trend in ICT use is the growing dependence on mobile devices, which are utilized not only for everyday activities but also in educational environments (Singh & Samah, 2018). In the classroom, cell phones are utilized for several things, such as gaining access to course materials, encouraging communication between teachers and students, and obtaining data on student performance.

Numerous published studies have examined problematic mobile phone users using their own collected data, which, among other problems, makes it difficult to replicate results (Zeng et al., 2015). Translation and distribution of the verified tools that are now available are therefore urgently needed. The Mobile Phone Problem Use Scale (MPPUS) is one of the most popular (Bianchi & Phillips, 2005).

Differences in Gender and Addiction to Mobile Phones

Smartphones are important to teenagers, with girls being more interested in them than boys. Previous research shows girls use SMS more frequently than boys, according to research which shows how boys and girls react to the messaging app. Researchers explain how the exact gender differences between boys and girls are leveled by the emergence of "gendered" subcultures; boys use mobile phones more for their own sake, investigating their features, and as toys, balancing out the amount of use among both groups, while girls use them primarily for social aspects (like design, ringtone, and color) and for communication. According to Turner et al. (2008), "user personality and individual characteristics like age and gender were found to be differentially associated with some aspects of phone related behaviors looked at gender differences in young people's problematic mobile phone use and both teams of impulsivity. Results summary: Compared to girls, boys and teenagers use mobile phones more often, and they use them more often on weekends than on casual days.

Side Effects of Mobile Phone While Playing Gaming

Kenny and McDaniel (2011) discovered that sadness and anxiety are associated with students' gaming habits, and adults recorded similar results. Whenever regular users' devices are inaccessible, anxiety frequently develops gradually. However, recent research found that anxiety and depression were highly associated with addiction, the technology uses predisposition, melancholy, and anxiety anticipated addicting online games and playing, symptoms of restlessness, and/or anger although unavailable to play. Teenagers' social and communication problems were caused by teenagers isolating themselves from their peers to spend more time gaming. Few psychology studies have found that spending more time playing video games reduces a person's ability to communicate effectively with friends, peers, and family members, particularly parents (Spraggins, 2009).

Behavioral Problems

"Almost everyone uses mobile phones for a bigger portion of the day," according to Acharya et al., (2013)'s study on some of the common health effects of mobile phones among college students. Headaches, irritability/anger, lack of concentration, poor academic performance, anxiety, eye strain, and lack of sleep are among the regular health repercussions of mobile phones. Concerns over how mobile gadgets affect people's physical and mental health are common. Every day, we are surrounded by electromagnetic radiation (EMR), which is produced by electrical equipment, power lines, building wiring, and other contemporary technologies. Exposure to electromagnetic radiation is rising and poses a serious risk to health.

Methodology

The goal of the study, which used a survey methodology, to examine the effects of mobile phone use on senior secondary school students' academic performance. This chapter outlines the research's methodology, including the approach taken, the study's setting, its participants, the sampling technique, the research tool, and the procedure for gathering data. This chapter also covers the instrument's validation and statistical analysis of the data. This study employed a descriptive-analytic research design.

Population and Sampling

The participants are from high school students at Uthal, Lasbela, and Balochistan. A small portion of a population (samples) chosen to represent the population as a whole. Random and nonrandom sampling techniques are the two basic categories (Nicholas, 2011). Study uses a quantitative research design, a probability sampling technique which is defined as one in which every member of the population has an equal and independent chance of being selected is employed. This straightforward random sampling method is chosen for data collection (Gabriele, 2019).

Table 1: Total male and female students have Smart Phone

Total students	No. of mobile phones	Male	Female
274	274	115	159

Source: Data collected from senior boys and girls high school Uthal Lasbela.

Research Instrument

The instrument that the researcher constructed was the main means of data collection for this investigation. The pre-test questionnaire that the researchers utilized was augmented by the senior

high school students' ratings, comments, and suggestions. The researcher used samples for re-testing of the data-collecting instrument of the study. Based on the performance of the most recent senior secondary school students, the researcher develops the questions with the assistance of qualified subject teachers.

Statistical Analysis

The researcher organized and tabulated before she validated the data gathered through the use of a survey questionnaire. To conduct a statistical analysis for this study, the researcher used the Likert Scale, and critically understand the meaningful interpretation of the gathered data.

Empirical Analysis

In two steps, we have examined this research. We discovered the frequencies and percentages through analysis in the form of tabular and graphical data. Inferential statistics have been examined in the second section. Where the bivariate correlation coefficient and hypothesis testing are determined. We analyzed the Chi-Square distribution test for hypothesis testing.

Descriptive Statistics

In descriptive statistics, we find out the results in the form of tabulated and graphical. The data were in the form of categorical and there were further scales. So, we find out the frequency distribution and the percentages of the variables.

Analysis

We used several sources to gather the data. The student's ages range from 18 to 22 years, with a standard deviation of 1.5 years and an average age of around 22. Nearly 5% of students are from other cities and about half of secondary students. We can gather data from two different classes male and female.

Table 2: Distribution of mobile phone usage in terms of time and money

Spend on (rupees)	Frequency	Time spent in a week (hours)	Frequency
<300	54	<10-12	23
250-350	61	11-12	76
350-450	45	21-32	90
450-550	52	32-42	50
600+	63	42-52	22
Total	273	55+	16
		Total	277

The result syndicates that there is the impact of smartphones on students' performance and effects the behavioral out comes. The respondents' weekly spending patterns and mobile phone usage are displayed in Table 2's frequency distribution. 50 rupees and 2000 rupees, respectively, are the lowest and highest outlays. All categories, however, have almost the same percentage. While most students spend more than ten but not more than forty hours a week on their phones. Seldom do students spend more than forty hours a week on their phones.

Table 3: the effects of cell phone use in class

Variables		Never	Seldom	Sometime s	Often	Always s	Total
	n	53	59.9	90	18	34	274
How frequently does using a phone in class interfere with your learning??	%	19.5	21.6	34.5	27.5	9.8	100.0
	n	22	48	110	74	22	274
How often does using a phone in class help you teach?	%	7.8	18.9	37.5	20.7	8.3	100.0
How often does it affect your Ability to concentrate when you get calls or messages right before class?	n	66	81	89	52	17	274
	%	24.8	15.9	28.2	25.3	6.8	100.0
	n	29.9	67	104	49	28	284
How often does using your phone while you're studying cause you to get distracted?	%	10.9	22.4	38.9	22.5	8.9	100.0
	n	18	37	87	86	65	194
How often does using your phone while studying help you with exams?	%	6.6	16.4	32.0	27.9	25.2	100.0

N.B. Note that the second row of each variable shows the percentage.

The analysis reveals that the student's majority experience the interference and distraction both by using phones in classroom and during study. 85% found that the mobile phones helpful for them for exams while 70% of admit that the phones affect learning this highlights complex behavioral impact of phone usage. Results support both objectives on the bases of behavioral data the null hypothesis rejected. Results suggests that the usage of mobile phones significantly affects academic performance and student behavior.

Using their mobile phones, students can communicate vital information regarding their studies with their classmates. Students utilize this amazing magic tool even more effectively than before. Research has indicated that the utilization of this technology has enhanced scholastic achievement. From this angle, the study aimed to identify the positive impacts on the academic performance of youth. For study purposes, 63% of respondents indicated they could easily contact their teachers, and 11.5 percent strongly suggested doing so. Additionally, more than 82% of respondents concurred that it is simple to get in touch with classmates for academic support. However, approximately 67% of respondents agreed that mobile technology has improved their academic performance, while about 25% disagreed. Furthermore, compared to 29.2% who disagreed, more than 62% said that mobile phones have contributed to an improvement in educational quality. The majority of students (more than 81%) use it as a dictionary, thesaurus, or calculator in class, and only 16% of them happen to disagree with such a proposition.

Table 4: Results of Multiple Regressions

Variables	Coefficients	Std. Error	t	p-value
(Constant)	3.12	0.446	5.582	0.000
Gender	0.112	0.015	3.946	0.000
Age (in years)	0.039	0.018	2.167	0.032
ime on mobile phone (in the week)	-0.021	0.008	-2.598	0.010
The positive effect of mobile phone	0.025	0.004	6.944	0.000
The negative effect of mobile phone	-0.024	0.008	-3.077	0.003
Application usage when studying	-0.022	0.010	-2.268	0.025

Results of Multiple Regressions addresses the objectives. Results are regarded as the dependent variable in this instance, while various demographic and mobile phone related variables are regarded as independent variables. Table 8 shows that the value of R² is 0.60996, indicating that the independent variables taken into account in this study can account for 60.99% of the variation in results.

Conclusion

The results of the study indicate that there isn't a direct link between the respondents' academic success and the effects of mobile devices. This research delineates the benefits and drawbacks of these modern technological advancements. It has been shown that senior high school pupils at Model High School Uthal Lasbela who enjoy playing with or using their smartphones have a negative effect on their academic performance. The results of the study show that students in senior secondary school male or female who use mobile phones have a significant detrimental effect on their academic performance. Nonetheless, there was no discernible effect of age or gender on these students' cell phone use on their academic achievement. The study essentially shown that, despite the fact that kids regularly misuse their phones, they are useful tools for education. Higher education institutions can profit from and take advantage of the potential of cell phones for instructional purposes because academics have a natural urge to communicate with one another. The researchers reach the conclusion that students' use of mobile devices for gaming may have an impact on their academic performance. Even though 145 of the respondents said they are affected, this does not necessarily indicate that they are doing poorly in their studies. The majority of students spend three hour to five per day playing online video games because they use them as a form of entertainment. For them to understand how they would be if they continued using this program, the kids concerned in this issue must be aware of the effects of utilizing mobile phones. Teachers, who act as the student's second parent, must inform them of any issues that may arise. They must not put up with the student's behavior like way. To change a bad practice or routine into a good one, encourage and direct them into other worthwhile pursuits that are related to their studies. Our daily lives and the culture of secondary high school both depend heavily on cell phones. Simply observing today's college students will reveal that they use their smartphones in every conceivable setting on campus, including the classroom, both publicly and privately. With the rapid advancement of mobile phone technology, it seems that these devices can help pupils study and perform better academically. As an illustration, contemporary "smartphones" provide students with immediate access to many of the same educationally beneficial features as a computer connected to the Internet, such as file sharing, online information retrieval, and

communication with teachers and fellow students. The results demonstrate that a cell phone is an essential tool for studying, as the majority of respondents utilized their phones for this purpose. The study's conclusions also imply that mobile phone manufacturers ought to consider how students use their devices for educational reasons. Students today face a variety of choices and challenges as a result of the increasing use of cell phones. Without a question, smart phones are useful study tools, but they may also be a dangerous source of attention for students, depending on their usage habits and mentality.

Recommendations

The previous finding suggests that, even though there is no statistically significant correlation between respondents' perceptions of the impact of using mobile phones on their academic performance and usage restrictions, especially during class times, be implemented. In order for students to continue receiving great grades, they must learn time management skills for using their devices and emphasize proper discipline when using their phones. No student should be permitted to enter their classroom with their cell phone on, as this would force them to focus on listening to the teacher and taking notes during the conversation. It is advised that a follow-up study be carried out.

1. This research study showed children who use mobile devices do not adhere to school rules. Therefore, it is strongly advised that steps be taken to make it illegal to bring mobile phones onto the school's property.
2. This research study brought forward that the use of mobile phones affects students' study habits negatively. It is also possible to ask the parents to keep a close eye on it at home.
3. This study investigated the idea that using a phone while in class does not promote a positive learning environment. Therefore, it is advised that using a cell phone during the instructions be avoided.
4. This study's findings demonstrated how using a phone impairs pupils' emotional stability. Therefore, it is suggested that mobile phones may not be given to students.
5. This research study highlighted those students who use mobile phones do not take good grades on exams. Therefore, it is recommended that mobile phones may not be allowed to students, especially during exams.
6. This study's findings indicated that pupils' academic performance suffers when they utilize mobile devices. Therefore, it is suggested that mobile phones may strictly be prohibited for students throughout their education.
7. Seminars, conferences, and workshops should be conducted to discuss how secondary school students' use of mobile phones affects their academic performance, while taking into consideration variations in age, gender, and socioeconomic status.

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