TEACHERS PERCEPTIONS OF SMARTPHONE TECHNOLOGY USAGE IN PUBLIC EDUCATIONAL INSTITUTES

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ABSTRACT
Smartphones have become so popular for educational purposes that they turned into an important part of our life. Due to the major contribution, smartphone technology has got a surprising place within the world. The advancement of any country depends on the educational system and it has proved over a period of time that education is the key to human progress and social change. For this, the concept of smartphone technology is not a new one but different features are upgraded on daily basis. Because of covid-19, the educational system is converted into blended or hybrid learning. It may be online or offline. Therefore, the use of smartphones is increased in educational institutes. That's why this content is necessary to discuss for the development of the education of public secondary schools. The proposed study entitled " Teachers' Perceptions of Smartphone Technology Usage in Public Educational Institutes" was conducted in Faisalabad. The sample size of this study was 119 teachers who was drawn through an online sampling calculator with confidence interval 7 and confidence level 95%. For the purpose of data collection, an interview schedule was prepared. The collected data was analyzed using the software Statistical Package for Social Sciences (SPSS). The results indicate that the main benefits of using smartphones, as reported by respondents, included "searching for course material," "gaining knowledge," "time management," and serving as a source of "avail lectures from other institutes". There are also drawbacks of smartphone technology such as fake information disseminated through smartphones, lack of confidence among users, time wastage, deterioration of social life, frustration, irritation, and the development of loneliness are some of the negative impacts associated with smartphone usage
Keywords: Smartphone, Educational System, Population and Communicate.

INTRODUCTION

A smartphone is a progressed portable phone gadget that is planned to solve everyday availability issues. Smartphones give so many features and permit more than make phone calls and send text messages. Smartphones have become a gadget exceedingly in request due to their control to perform fundamental and progressed computer functions. Any issue can be solved through one-touch these days. That's why in modern life fashion, individuals can't live without it, and they have become the need in life. The utilize of smartphones gives high-quality performance and fast get to data and entertainment, such as portable sound and video calls, portable teleconferencing,

sending and getting emails, and simply access to the web for different kinds of people, including understudies. One more utilization of it is excitement & social media. It is a source of all kinds of social networks and fun. Because of this, individuals especially students get dependent on it, which in turn impact their thinks about, ethical values and mental & physical health (Raza *et al.,* 2020). Education is a concept and perspective that has been unique and respected since the earliest days in human history and efforts to improve the quality of education are widely known (Kumar, 2011). Educational works out that join smartphone utilization are getting to of course substance, persuading sharing and conversation sessions between teaches and understudies, recouping information for students' exhibitions. In this way, the smartphone utilizes may lead to an imperative effect in overhauling students' execution as this contraption might boost instructing and learning association (Cochrane, 2010). Education is the socially organized and controlled planning of determined transference of socially vital association from the past times to the following. The most way to get an education is to require a course of preparing within the framework of educational institutions (Naziev, 2017). Learning is nearly modified. The change brought roughly by making present-day expertise, understanding a coherent law, changing a state of intellect. The change isn't only coincidental or typical inside the way that our appearance changes as we get more prepared. Learning could be a moderately changeless modification, more regularly than not brought around aims. When we go to a course, see-through a book, or perused a talk paper, we set out to memorize! (Sequeira, 2012). Educational sector are considered as a vital supply of knowledge where more than two million teachers are providing education in Pakistan. It is the obligation of the kingdom and society to secure the contraption of educational training. Keep in considerations, it is requirement of the hour to create efforts for its improvement. In our society, the covid-19 shown the negative impact in every field of life but the education system in survival and gone done. Due to the pandemic, the study aims to convert toward the blended or hybrid system of education. Due to this hybrid system of education, it needs a smartphone to transmit the education in private and public schools. This study also focuses on the application which has access to students thus the education and teaching-learning process is continued effectively. The educational institutes should be provided the facilities to their teachers as well as their students of information technology. The government can also participate in this matter and make ensure to assess of information technology and cheap internet facility. Smartphone also provide an easy way to facilitate and inspire the student learning and creativity well increasing motivation. The goal is to give students ways to use this beloved technology to learn collaborate share and create in meaningful ways. Smartphone technology, when coordinates into the educational programs, revolutionizes the learning process. Increasingly studies appear that smartphone technology combination within the curriculum makes strides students' learning processes and results. Teachers who recognize computers as problem-solving instruments change the way they teach. This study will examine the impact of smartphone technology on teachers regarding to the quality teaching of public and private educational sector at secondary level.

Objectives
1. To identify the positive impact of smartphone technology on students
2. To explore negative effects of smartphone on students
3. To identify the effects of smartphone on the social life and family interaction

Methodology
The study was conducted in the city of Faisalabad, which was selected conveniently. The study focused on secondary schools within the city. The population of the study comprised 300 secondary-level teachers from 10 schools in Faisalabad. A list of all secondary school teachers was obtained from the Education Officer of Faisalabad. Schools were selected randomly, and all teachers from these selected schools were considered the population for the study. Since it was not feasible to consult all 300 teachers due to limited time and resources, a sample size was calculated using an online sample size calculator available at www.surveysystem.com. Using a confidence interval of 7 and a confidence level of 95%, the calculated sample size was 119 teachers. Keeping in view the objectives of study, a questionnaire was

designed as the primary instrument for data collection. After collecting the data, it was analyzed using the Statistical Package for Social Sciences (SPSS). Various statistical measures were computed using this software to interpret the results.

Results and Discussion:

Table 1 Respondents views about positive impact of smartphone technology

Skill development	WS	Mean	SD	RO
Search course material	502	4.22	0.69	1
Gain knowledge	499	4.19	0.71	2
Time management	498	4.18	0.74	3
Avail lectures from other institutes	496	4.17	0.74	4
Prepare assignments	494	4.15	0.61	5
Increased students learning knowledge	494	4.15	0.61	6
Sending and receiving emails	489	4.11	0.98	7
Educational opportunities achieving	489	4.11	0.98	8
Academic help	483	4.06	0.87	9
Deep-rooted learning	482	4.05	.95	10
Motivate students learning	482	4.05	1.03	11
Memorization skills	475	3.99	0.95	12
Access to E-learning	473	3.97	1.09	13
Instant communication	471	3.96	0.96	14
Channel of communicate	469	3.94	0.95	15
Make teaching and learning more meaningful	467	3.92	0.99	17
Suitable for imagery audio/video playback	465	3.91	0.95	18

The table discusses the respondents' views regarding the positive impact of smartphone technology. Their responses are ranked based on the weighted score and mean value for each skill acquired through the use of technology. According to the respondents, smartphone technology was most helpful in *"searching for course material."* This skill is ranked first in the table, having the highest weighted score of 502 and a mean value of 4.22. As reported by Bien (2012), students can as well utilize their phones to browse the net to discover the data they require. Students can record their lessons by taking pictures or recordings to create strides bolster. With sharp phones, learning can as well be more instinctive and fun. Smartphones can be utilized as paper and pencil. During the discussion, respondents further elaborated that smartphone technology benefited both teachers and students by providing access to various lectures and course materials on the same subject and even the same topic. The diversity of materials and information available helped students develop a deeper understanding of topics, thereby enhancing their knowledge. This factor ranked second in the table, with a weighted score of 499 and a mean value of 4.19. Time management emerged as another important factor. Respondents mentioned that students sometimes struggle to grasp lectures or the subject matter during class. In such cases, they rely on technology to clarify concepts. Teachers also noted that they often share lecture links with students to provide additional support on specific topics. Due to time constraints, teachers may not always repeat topics for individual students; instead, they share videos or links. Additionally, students often access lectures from other institutions through online browsing and searching. This factor is ranked third in the table. Similar reason was also reported by Cochrane (2010) he said that smartphone-based educational experiments be used to discover something, facilitate sharing and exchange time between teachers and students. Some respondents highlighted the usefulness of smartphones for *"preparing assignments."* They explained that students often use smartphones to complete assignments, as it is not feasible to carry a laptop at all times. Moreover, not all students can afford

laptops, making smartphones a more accessible tool for educational purposes. The table also highlights several other positive impacts of smartphone technology, as reported by the respondents. These findings underscore the multifaceted role of smartphones in enhancing educational experiences for both teachers and students. As Wali and Omaid (2020) reported that overall, the respondents agree that smartphone use in the classroom has the benefits of finding updated information, improving the searching and learning skill, and providing anywhere, anytime learning opportunity. However, the respondents almost agree to the remaining benefits of smartphone use in classroom. The smartphone has become deeply ingrained in the lives of the younger generation, to the extent that it serves as a defining characteristic of their identity (Skierkowski & Wood, 2011). This phenomenon is evident as the tech-savvy youth increasingly rely on advanced touchscreen technology, enabling them to access various applications at any time, facilitated by round-the-clock internet connectivity. Rather and Rather (2019) Smartphones have become an essential and remarkable communication tool for the younger generation, often making individuals feel incomplete without them. They have revolutionized various aspects of human development, including education and research, business, healthcare, sports, and entertainment.

Table 2 Negative Effects of smartphone on students

Effects on studies	WS	Mean	SD	RO
Fake information	463	3.89	1.02	1
Lack of confidence	459	3.86	0.97	2
Unnecessary communication	453	3.81	0.94	3
Reduced face to face communication	447	3.76	1.03	4
Connectivity may be limited	443	3.72	1.03	5
Wastage of time	442	3.72	1.27	6
Lack of interest in education	440	3.70	1.17	7
Constantly distracting	432	3.63	1.17	8
Software virus problem	431	3.62	1.07	9
Un-derived data browsing	431	3.62	1.09	10
No training	429	3.61	1.08	11
Unnecessary communication	427	3.59	1.11	12
Non-cooperation of teachers	417	3.50	1.17	13

The table highlights the negative effects of smartphone technology as discussed by the respondents. According to them, there is a significant risk of encountering fake information through smartphone use. They added that many teachers and students are unaware of authentic websites and channels for obtaining reliable information. As a result, they often rely on irrelevant or false sources of information. Respondents also mentioned that students' over-reliance on smartphone technology negatively impacts their abilities. Many students lack confidence, struggle with public speaking, and perform poorly when required to speak in front of examiners or teachers. Based on the teachers' feedback, the factor *"Lack of confidence"* is ranked second in the table, as it has the second-highest mean and weighted score. Furthermore, both teachers and students observed that smartphone use has affected their social interactions. Individuals who frequently use smartphones tend to limit their face-to-face conversations with colleagues and teachers, leading to a decline in physical interaction and social life. The table also indicates that smartphone technology often leads to time wastage. Many respondents reported that students and teachers spend excessive time watching videos, playing games, and engaging in other non-productive activities. This factor, *"Wastage of time,"* is ranked sixth in the table, with a weighted score of 442 and a mean value of 3.72. There are many other drawbacks of using smart phone technology as mentioned i.e. lacking interest in education, distracting/diverted concentration etc.

There are different drawbacks of smartphone technologies as reported by Tindell and Bohlander (2012) explored the use and misuse of smartphones in college lecture settings, revealing that students often fail to focus on their lecturers due to excessive texting. Similarly, research by Elder (2013) found that students who used mobile phones during class scored lower and retained less lecture information compared to those who refrained from using their devices. The World Health Organization has highlighted that excessive smartphone use can lead to significant public health concerns (WHO, 2015). According to Kendra (2018) highlights that excessive smartphone use can aggravate thumb arthritis due to frequent texting. Additionally, the short-wavelength blue light emitted by smartphones poses health risks, including nerve pain, back pain, and shoulder pain. Moreover, reading on smartphones is detrimental to learning and comprehension. Butler (2019) identifies the negative aspects of smartphones, noting that some smartphone owners have created platforms that expose users to security risks by accessing proprietary information or financial data. Similarly, Parasuraman et al. (2017) highlight in their research that excessive smartphone use can result in both psychological and physiological complications.

Table 3 Effects of smartphone on the social life

Effects on social life	WS	Mean	SD	RO
Loneliness	478	4.02	0.96	1
Taking photos	470	3.95	0.98	2
Frustration	470	3.95	1.14	3
Irritation	464	3.90	1.00	4
Less interaction	451	3.79	0.98	5

The data presented in Table 3 regarding the effectiveness of smartphones on social life indicates that *loneliness* ranks highest, with a mean value of 4.02 and a weighted score of 478. This is followed by *taking photos,* which has a mean value of 3.95.

The table further reveals that excessive smartphone use disrupts students' mental well-being, leading to frustration. Respondents noted that students' ability to exercise patience has significantly declined due to overreliance on smartphones. The factor *"Frustration"* is ranked third, with a weighted score of 470 and a mean value of 3.95. Similar findings are also reported by Erick et al.(2016), according to them smartphone usage can lead to frustration and irritation among family members when individuals focus on non-essential activities on their devices while spending time together. This behavior fosters feelings of disengagement and curiosity about others' actions, given the personal nature of mobile devices. Additionally, smartphone addiction contributes to irritation in users' behavior. Such individuals are often involved in conflicts when interacting with others. Students heavily dependent on smartphones also tend to avoid social interactions, leading to hesitation and discomfort when engaging in conversations with others in society. According to Antonella et al. (2018), they reported that cell phones can cause irritation in the form of allergic contact dermatitis, often triggered by exposure to metals such as nickel and cobalt present in the devices. Research on investigating and understanding different aspect of smartphone use among the students such as psychological impact or social impact of smartphone use on their lives are still lacking. Although studies had been conducted on the impact of smartphone use on student's psychological or social life in many other countries (Kuss and Griffiths 2011). On the other hand, Elmountacer et al (2005) indicated that mobile phone users often report irritation symptoms, including sensations of warmth and discomfort. Kemal et al. (2004) stated that prolonged mobile phone use may lead to significant irritation among users. However, no substantial effects were observed regarding dizziness, hand tremors, speech difficulties, or neuropsychological discomfort.

Table 4 Effects of smartphone on family interaction

Effects on family interaction	WS	Mean	SD	RO
Dissatisfaction with time spent together	470	3.95	.90	1
Fewer verbal and non-verbal interaction	469	3.94	0.95	2
Less coordination	466	3.92	0.87	3
Check or respond to email messages	462	3.88	1.09	4
Lower awareness and sensitivity	453	3.81	0.99	5
No time for each other	449	3.77	1.18	6

The data presented in Table 4.23 regarding the effectiveness of smartphones on family interaction indicates that dissatisfaction with time spent together ranks highest, with a mean value of 3.95 and a weighted score of 470. This is followed by fewer verbal and non-verbal interactions, which has a mean value of 3.94. Respondents explained that smartphone users tend to have limited social lives, which also affects their coordination with family members. They often isolate themselves from their families, remaining unaware of family activities and responsibilities, such as managing family functions. The factor *"Less coordination"* is ranked third in the table, having the third-highest mean and weighted score. Furthermore, such individuals are constantly engaged with their smartphones and social media platforms. They tend to prioritize responding to messages from these platforms over engaging in physical interactions. Consequently, the factor *"Check or respond to email messages"* is ranked fourth, as indicated by its mean and weighted score. Additionally, smartphone addiction has been linked to lower awareness and sensitivity among users. Respondents noted that people heavily reliant on smartphones are often unaware of their surroundings and lack emotional connection with their community due to their reduced interaction. This detachment negatively impacts their overall social sensitivity and awareness.

Conclusion and Recommendations
From this study, it can be concluded that the usage of smartphone technologies has significantly impacted students' lives, making learning and daily activities more convenient. Students can learn more effectively by using smartphones to watch videos and lectures from national and international educators. However, there are several disadvantages associated with smartphone usage. Individuals who become addicted to smartphones may waste their time, lose critical thinking abilities, and lack a social life. Whether technology benefits a person or not depends on how they use it. Therefore, we should encourage the use of technology while motivating youth and other generations to use it in a positive and productive way.

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