Effects of Students' Cell Phone Use on Learning: Perceptions of Academicians in Khyber Pakhtunkhwa, Pakistan

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Abstract:

This study explores the perceptions of educational managers and teachers regarding students' Cell Phone (CPs) use in government schools of district Swabi. The population of the study comprised heads of educational institutions, subject specialists, and secondary school teachers of twenty different schools. The sample for the research was selected randomly. The research instrument used for data collection was a closed-ended questionnaire which contained 10 items on a Likert' scale. The collected data was analyzed through different statistical tools like mean, standard deviation, and chi-square. The study finds that majority of the respondents were against CPs use during school hours. Several respondents believed that students using CPs did not follow school discipline while others asserted that using a CP for social media did not help learning. More than 50 percent of the respondents stated that CP use did not develop study habits among students and negatively affect the learning environment. Cell Phone use also interrupts other students and teachers cannot manage it.The research is mostly based on quantitative data analysis but to a minimum qualitiative analysis has also been brought for elaboration of the topic.

Keywords: Pakistan, academicians, cell phone use, student, learning, information technology

INTRODUCTION

Due to globalization and advancement in the field of science and technology, people's lifestyle has undergone drastic changes. Since 1990's the rapid progress in the field of information and communication technology (ICT) facilitated human life so efficiently (Ling 2004). Cell Phone is considered as the most necessary medium of communication for adolescents, (Haruna, 2016). CPs have become an essential part of the everyday life and affected society's accessibility, social activities, safety, security as well as business.

CP has challenged the educational institution and home as a primary agent of socialization (Ling 2004). The process of socialization is the main responsibility of school; which is not fulfilled due to the influence of CP on our school system today. The views of parents, students and teachers are different regarding CP use. Teachers complain discipline problems while parents are more concerned about the whereabouts of their children (Haruna, 2016).

The CP is a pocket-sized accessory that communicates, stores contact information, camera and entertainment features. CPs are different in design and functions. The simple CPs are used only for

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calls and text messages (Wood 2006). While smart phones have better features such as camera, internet access, multimedia messaging, audio and video, recording, bluetooth, MP3 player, and networking feature (Livingston 2004). Besides these functions, it aids in teaching and learning process.It is a pocket sized computer (Taber, 2005).

A lot of reports and investigations show that CP usage in schools affects the decorum of the educational institution.The purpose of school is to provide quality education to the students by keeping them distracted from the outside contact for a specific period of time in order to give full concentration to their studies. The CP links student's role with other roles and in such a way that it distracts and disrupts the learner's academic performance and learning (Ling and Helmerson 2000).

Review of related literature

In the past, there was only one communication device i.e. telephone so there were fewer chances of distraction but now with the rapid advancement and the stress of parents to keep in contact with their children, CP has become a part of the school and even classroom(Rabiu, Muhammed, Umaru, & Ahmed, 2016) . Thus, the use of CP in school is an interruption in the peaceful learning environment of the school which not only badly affects the learning and academic performance of the students but also weakens the control of school authority over students.

However,there are numerous educational advantages of CP such as easy access to content, a wide range of educational activities, self-study, increased student's zeal and enthusiasm, and classroom-based interaction and collaboration (Roschelle, 2003). The smartphone assists the students to have access to advanced study, information, link with other students for study purpose, contact with modern knowledge through the net and produce, a most strong media approach to instruction (Ferry, 2009).

The current development in information and communication technology hassignificantly improved the use of CP. The CP is currently used as an instructional device due to its processing power, connectivity, and memory which surely attracts users (Pea & Maldonado, 2006). During field trips, this advanced communication technology is also used in the subject of science when students collect data for further analysis in the science laboratory (Vavoula, Sharples, Rudman, Lonsdale & Meek, 2005).

The present generation has the most advance and powerful multimedia devices which they can use to message and file sharing which normally takes place in a conventional setup. Students in the present time have more knowledge and command over CPs as compared to the past. Previously, students only have notebooks and pen for learning purpose and these were the fundamental tools, but today majority of the learners attends their respective classes equipped with the most advance CP (Sullivan, 2008)

The learners are more interacting with CPs outside the classroom to explore what they have learned during the class (Haythornthwaite & Andrews, 2007). As compared to computer, CP is small in size to carry, that is why these technologies are more lucrative for learning objectives. Ateacher believes that a CP is essential for students so it is prime to utilize these technological devices in educating the pupils (Prensky, 2005).

MP is the most important technological device and for the student's life, it is necessary. It is not only necessary for communication but also the need of the day (Haythornthwaite & Andrew, 2007).

Today students keeping in view their individual needs and choices, select the quality and function of CPs (Attewell, 2005). The students who study in universities give priority to using a CP rather than desktop computer and laptops. Keeping in view the above mentioned research and investigation, the CP can support the learners to a greater extent. In countries like Nigeria, the CP is the most accessible technology that most learners have. The effectiveness of CP technology is increasing day by day. When this device is exploited, it can not be used during classroom teaching (Kimura, 2011).

Students who fail in the exam,were found unattentive in the class. They use the CP even during break time/free time/ground time. Although there were various causes of student's failure i.e. lack of learning material, lack of audio-visual material, poor teaching method, lack of control from parents side, weak management and administration, etc. All of these may affect the achievement and performance of students in school. The use of CP during and after school time,, including free night calls, chat, exam malpractice's, use social media badly influence students' academic performance and learning (Haruna, 2016). These research reports further stressed the exploration of the perceptions of educational managers and teachers regarding student CP use in higher secondary school.

The CP is a good and modern technological communicative device. That can be used for various positive purposes i.e contact with parents and friends, for audio and video purposes, for taking pictures, recording, searching study materials, for internet purposes, for calculating of numbers, for calendar, alarm, torch and clock purposes, sending and receiving calls and messages and a lot of other purposes but it is not less than poison for young generation especially for students. There are a lot of negative aspects, such as it wastes valuable time of the students. Students use it negatively which not only wastes their time but also detract them from the path of morality. So it is exactly that the CP is a modern communicative device but no one can deny its disadvantages.

METHODS AND MATERIALS

The study is based on quantitative method of research for the purpose a close ended questionnaire was designed which was comprised of 10 items based on Likert scale. 20 high schools of district Swabi were selected for data collection. In the process of data collection more than 19 heads of educational institutions, 76 subject specialists and 114 secondary school teachers were selected as a population of the study. The researchers made visits of the selected institutions and distributed questionnaire among the smaple group. After the data was collected statistical analysis was brought.

DISCUSSION

"To Use" or "Not to Use" CP: A Complex Debate around the World

Banning or allowing Mobile Phone or Cell Phones in the educational institutions' premises has become a popular discussion between academicians and researchers. Similarly, researchers and academicians are divided on "to use" or "not to use" cell phones by school children. Even in advanced western cultures "to use" or "not to use" is a highly politicized topic. The governments are

divided about "to use" or "not to use" but there is a popular trend of banning the use of CPs across the world. The survey of the Monash University of Australia shows that 82.6 percent of its respondents who were in favour of using ICTs for learning purposes were against the use of CPs by students during school. Although the use of ICT for learning is considered a worthy consideration: in the world, the most sophisticated mode of this technology is CP (Trucano, 2015).

Many other surveys pointed out that the use of phones in schools causes distraction and negatively impacts the reading and learning process of school children. It has also been the main cause of cyberbullying in schools and leads to myopia (Why mobile phones are being banned in schools across Western Australia, 2019) . According to Louis-Philippe Beland and Richard Murphy, after schools banned the use of phones the students test scores improved by 6.4 percent. They further told: "We found that not only did students' achievement improve, but also that low-achieving and low-income students gained the most; the impact of banning phones for these students was equivalent to an additional hour a week in school, or to increasing the school year by five days" (Doward, 2015). It is obvious by different research studies that "not to use" CPs by school-going children adds to their attentiveness and presence and boosted their performance in tests and exams.

In the year 2002, in many schools in the US ban was lifted but in contrast to that in many other countries of Europe, Africa, and Asia the "ban on the use of cell phone" was strictly imposed: France introduced a law regarding "ban on the use of cell phone" in 2009 which was enacted in 2018 (Hess, 2019); Nigeria imposed ban in 2012; Uganda in 2013 and Malaysia in 2014; while in Japan, Belgium and Indonesia rules and regulations were enforced regarding use, purchase and sale of cell phones with the specification of age groups (Trucano, 2015). There is popular support and understanding about the negative impacts of the use of CPs by children under age 16 in schools and some cases even outside the schools.

Studies tells that the use of CPs must be avoided by school children because:

- It distracts learning not only in students but also in teachers
- Radiation adds to severe health issues in children e.g. eyesight damage and cyber-addiction
- It can be used in cyber-bullying; it could lead to cheating in exams; students can become a potential target for thieves
- Besides all these impacts, it can disturb students learning outcomes or students performance

"To Use" or "Not to Use" CPs Policy in Pakistan

Pakistan is a developing country in terms of human, material, and technological advancement. Despite such low indicators, Pakistan was among the top ten in the list of 222 countries in terms of "most CP use" by CIA World Factbook, 2009 (Use of mobile phones in schools, 2012). The above data tells about the extensive use of CPs in Pakistan and making it "having more users" than most of the countries of Europe and other advanced nations of the world. Understanding the severity of the issue, the Punjab government announced a ban on the use of phones by schools and college students in 2012 (Use of mobile phones in schools, 2012).

In November 2019, the Punjab government further extended the ban calling upon for restriction on the use of social media and phones by students under 16 years of age; strict disciplinary actions

were also proposed against the violation of these rules by the students. Following the footsteps of the Punjab government, KP-Government also announced a ban on the use of cell phones by both students and teachers during school hours. The statement told: "Teachers and students in Khyber Pakhtunkhwa are no longer allowed to use their CPs at school" (Use of mobile phone in schools: KP government issues instructions for teachers and students, 2018).

Different statements and notifications were issued from time to time calling for the abandonment of the use of phones in schools by students and teachers but no bill or procedure of enacting the law has come out with clear cut direction about this important issue. There is a dire need for proper legislative procedures and compact law about "the use" or "not to use" of CPs by students and teachers. While studies and government actions from different parts of the world prove that the "not to use" CPs can improve the students' attention and performance in the classrooms and can help them achieve higher grades in tests and exams.

Analysis and Findings

Under the theme of discussion on the use of CPs in schools by the students and its advantages or disadvantages, the questionnaire constituted the following main discussion as presented in tables 4.1 to 4.10. The respondents included Heads of Institutions, SSs, and SSTs of district Swabi.

Table 4.1: Students Use CP during school/class for learning

	Frequency	Percentage
Strongly agree	1	.5
Agree	13	6.7
Neutral	18	9.2
Disagree	95	48.7
Strongly Disagree	68	34.9
Total	195	100.0

As table 4.1, shows that 83.6 percent (including strongly disagree and disagree) of the respondents were against the use of CPs during school/class. It shows that the use of CPs is not good for students. The survey analyses presented above constitute that: 34 percent of the respondents strongly disagreed and 48.7 percent disagreed that students use CPs during school/class for learning. The percentage of neutral respondents was 9.2 percent while those who agreed to the statement were 6.7 percent and those strongly agreed were only 5 percent.

Table 4.2: Using CP for social media helps in learning

	Frequency	Percentage
Strongly agree	3	1.5
Agree	56	28.7
Neutral	27	13.8
Disagree	70	35.9
Strongly Disagree	39	20.0
Total	195	100.0

As table 4.3 demonstrates,55.9 percent (including strongly disagree and disagree) respondents viewed that using CP for social media did not help in learning. The majority of students use CPs for purposes other than creative learning. Those who disagree with the statement have a percentage of 35.9 percent while 13.8 percent were neutral and those agreed and strongly agreedconstitute 30.2 percent. So, this portion showed that most of the respondents were against the use of CP for social media learning by students.

Table 4.4: Students using CP develop study habits

	Frequency	Percentage
Strongly agree	2	1.0
Agree	11	5.6
Neutral	22	11.3
Disagree	102	52.3
Strongly Disagree	58	29.7
Total	195	100.0

As table 4.4, shows, 82 percent (including strongly disagreed and disagreed) of the respondents stated that CP use did not develop study habits among students. CPs waste the valuable time of students and distract them from study. It adds to the laziness of the students. The respondents who agreed and supported the statement were 6.6 percent while neutral opinion were 11.3 percent. Thus, most of the respondents did not support the statement that the use of CPs can develop study habits among the students.

Table 4.5: CP use makes a favourable learning environment

	Frequency	Percentage
Strongly agree	4	2.1
Agree	14	7.2
Neutral	18	9.2
Disagree	93	47.7
Strongly Disagree	66	33.8
Total	195	100.0

As table 4.5 indicates, 81.5 percent of the respondents (including disagreed and strongly disagreed) rejected that CP use makes a favourable learning environment. Those who agreed to the statement that the CP makes a favourable learning environment were 9.3 percent while 9.2 percent remained neutral.

Table 4.6: Students using CP interrupt other students in learning activities

	Frequency	Percentage
Strongly agree	33	16.9
Agree	58	29.7
Neutral	18	9.2

Disagree	52	26.7
Strongly Disagree	34	17.4
Total	195	100.0

As table 4.6 shows, 46.6 percent of the respondents agreed that students using CPs interrupt other students in learning activities. Those who disagreed and strongly disagreed were 44.1 percent while a maximum of 9 percent were neutral. Thus, it was established that most of the respondents thought that the use of CPs by students could interrupt other students' learning.

Table 4.7: Students using CP take interest in their studies

	Frequency	Percentage
Strongly agree	6	3.1
Agree	12	6.2
Neutral	15	7.7
Disagree	97	49.7
Strongly Disagree	65	33.3
Total	6	3.1

As table 4.7 shows, 83 percent of the respondents disagreed or strongly disagreed that students using CP take interest in their studies. Those agreed constituted 9.3 percdent while those who remained neutral constituted 7.7 percent.

Table 4.8: A teacher can manage the students who use the CP

	Frequency	Percentage
Strongly agree	8	4.1
Agree	33	16.9
Neutral	23	11.8
Disagree	79	40.5
Strongly Disagree	52	26.7
Total	195	100.0

As table 4.8 shows, 67.2 percent of the respondents disagreed that a teacher can manage the students who use CP. The respondents who agreed to the statement constituted 21 percent while the 12 percent were neutral. Thus, most of the respondents disagreed to the use of CP.

Table 4.9: CP Use increases interaction between teacher and students

	Frequency	Percentage
Strongly agree	6	3.1
Agree	63	32.3
Neutral	24	12.3
Disagree	65	33.3
Strongly Disagree	37	19.0
Total	195	100.0

As table 4.9 shows, 52 percent of the respondents did not agree that CP use increased interaction between teacher and students while 35.4 percent of the respondents agreed to the statement. Those remaining neutral were almost 12 percent. Thus, most of the respondents were against the use of CP.

Table 4.10: CP use in school is a source of contact with home

	Frequency	Percentage
Strongly agree	24	12.3
Agree	84	43.1
Neutral	27	13.8
Disagree	28	14.4
Strongly Disagree	32	16.4
Total	195	100.0

As table 4.10, shows, 55.4 percent of the respondents agreed that CP use in school is a source of contact with home. Those disagreed and strongly disagreed constituted 31percent while a total of 14 percent remained neutral. Thus, most of the respondent supported the statement.

Chi-Square Analysis

Table 11

Perceptions of Heads of Institutions (HOIs) & Teachers about use of CP in Schools

	Observed N	Expected N	Residual
Strongly Agree	84	377.4	-293.4
Agree	360	377.4	-17.4
Neutral	127	377.4	-250.4
Disagree	785	377.4	407.6
Strongly disagree	531	377.4	153.6
Total	1887		

Observations of HOIs and Teachers regarding the use of CP in school

Chi-Square	897.767[a]
Df	4
Asymp. Sig.	.000

a. 0 cells (.0%) have expected frequencies less than 5. The minimum expected cell frequency is 377.4.

Table. 11 shows that the value of chi-square is 897.767 which is much greater than the probable value at $\alpha = 0.05$. So, it was concluded that a higher number of the respondents were against the CP use of in school.

FINDINGS

- Table 4.1 shows that 83.6 percent of the respondents were against the CP use during school/class hours.
- Table 4.2 shows 84.6 percentof the respondents believed that student using CP did not follow school discipline.
- Table 4.3 shows that 55.9 percent of the respondents asserted that CP use for social media did not help in learning.
- Table 4.4 indicates that 82 percent of the respondents stated that CP use did not develop study habits among students.
- Table 4.5 shows that 81.5 percent of the respondents believedthat CP use did not make a favourable learning environment
- Table 4.6 shows that 46.6 percent of the respondents agreed that students using CP interrupt other students in learning activities.
- Table 4.7 shows that 83 percent of the respondents agreed that students using CP did not take interest in their studies.
- Table 4.8 shows that 67.2 percent of the respondents indicated that a teacher cannot manage the students who use CP.
- Table 4.9 shows that 52 percent of the respondents rejected that the use of CP increases interaction between teacher and students.
- Table 4.10 shows that 55.4 percent of the respondents endorsed that CP use in school was a source of contact with the home.

CONCLUSION

Majority of the respondents were against the CP use of during school hours. Several teachers believed that students using CP undermine school discipline and disturb the learning environment. Other respondents viewed that CP use for social media neither helps in learning nordevelops study habits among students. Majority of the respondents believed that CP use did not create conducive learning environment. While half of the respondents looked serious about the use of CP by students in schools, that students using CP do not take interest in their studies and also interrupt other students in learning activities, making it difficult for the teacher to manage. CP halt interaction between teacher and students. . The research study highlig hted the negative effects of CP use in school and classroom. Therefore, it is understood that there must strict check upon the CP use in schools. Administration may contact with the parents to refrain their children from using CP during school. The study showed that students using CP do not follow school discipline and hinders learning. The school administration, teachers and also parents need to keep a good check upon students to avoid CP during their study hours.

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