

# PSYCHOSOCIAL ESTIMATION OF MOBILE PHONE USAGE: A CASE STUDY OF GRADUATE STUDENTS IN RAWALAKOT (AZAD KASHMIR)

By

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**Abstract**— The findings from this study revealed that perceptions on students mobile phone use are not satisfactory. The responses revealed that there were 86.66% who answers „Happy“ and 13.34% answers „Unhappy“. The major themes are maturity of students and legal age. Both these reflect the level of physical and psychological development in students that in turn establishes a confidence to provide them with a mobile phone. Need for the device reflects that mobile phones are a necessity from an appropriate age for some family situations. In this research we observe that colour of mobile effects on psychological behaviour on student. 83% students like black colour, 13% like white, 3% like blue and 1% like green.

Mostly graduate college students in Rawalakot used SMS, MMS, music, games, Internet like as e-mail and Facebook etc. In this locality, average usage of mobile phone in graduate students 7.5 hours per day.

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## INTRODUCTION

The new digital environment presented an exceptional array of possibilities for communication, interaction, and information retrieval at the fingertips that was never before available (Montgomery, 2007). Digital natives are also called the 'Thumb Generation' mainly because of the intense exchange of text messages, which are generated using thumb.

Text messages are compared to the telegraphic writing sent in bits and pieces. Many abbreviations and short hands have been adopted, mainly to ease and speed up typing, these are sometimes misunderstood. There was huge number of SMS messages sent between students each month and students were sending SMS messages rather than talking to each other.

In Finland, the mobile phone is commonly referred to as Kannykka, which means 'an extension of the hand' (Campbell & Park, 2008). With the growing number of gadgets embedded in modern mobile phones (Particularly 3G and 4G phones) such as the MP3, Internet, Camera, TV, and decrease in the size and the price of such devices, mobile phones have become omnipresent. The mobile phone is an anytime and anywhere tool, boosting the tendency to do things discreetly as well as openly. It is very common to see people talking about personal issues whilst using mobile phones in front of strangers and also using the same inaudibly (such as text messaging) in the presence of their families and friends.

Cellular networks are made up of many cellular base stations that communicate with the phones, which are located in that particular area. An area is referred to as a cell. When cell phones turned on, it reached the nearest base station and establishes a communication link and this process is called registration. This communication takes place wirelessly with the base stations.

## MAIN OBJECTIVES OF THE STUDY

In Rawalakot (Azad Kashmir) no research work on mobile phone usage published which cover all the risk factors which are included in this research. The present study will be conducted with the following objectives.

1. To gain an understanding of graduate students mobile phone usage (positive purposes, negative impacts).
2. To understand the influence of texting on graduate students (such as text language on proper language and text messaging on communication skills).
3. To understand the effect on graduate students physical (health) and psychological (such as bullying, un-monitored time usage, family time).

## LITERATURE REVIEW

Plant (2000) discussed in a balance between the location (physical) and the conversation (psychological) demands, mobile users have introduced a new body language in their everyday life through new stances, gestures and movements.

Ling (2001a) analysed that although both boys and girls are enthusiastic users of mobile phones, girls tend to be the driving force for social networking to gain relatively larger and intense social groups than young male adults. Occasions such as birthdays and anniversaries are remembered and nurtured, mainly by women, in order to maintain the fibre of family bonds and social relationships. Mobile phones in the hands of girls sustain this nurturing quality of womanhood with which they mature.

Taylor and Harper (2002) say that some teenagers attach an emotional significance to memorable text messages. Text messages are easy to recall through later readings that teenagers consider as gifts when they carry a symbolic meaning. Sending messages to friends such as 'good night' before going to bed or saying 'I love you' reflects the intimacy between friends and also promotes social binding.

Ling & Yttri (2003) considered the context of popularity via cell phones in a peer group networking is its 'quantification of popularity'. The capacity to send and receive messages and the facility to enter several numbers in automated dialling registers in mobile phones actually help teens to measure and quantify their popularity. Adolescents who spend time with friends exhibit a higher sense of self-esteem and

hence mobile phones add a dimension of confidence that adds value to their identity. Wei & Lo (2006) surveyed among Taiwanese college students, it was found that "the cell phone supplements the fixed telephone as a means of strengthening users' family bonds, expanding their psychological neighbourhoods, and facilitating symbolic proximity to the people they call". The symbolic proximity also leads to amalgamation of other factors such as physical and psychological nearness. Vaidyanathan and Latu (2007) revealed the findings of their study that teenagers are losing the skills of communication such as eye-to-eye contact and good posture while speaking. The findings also revealed that teenagers are more affluent in answering back through text messages rather than speaking back. Parents are concerned about their teenagers losing communication skills and consider it a huge disrespect and disregard. This also implies that there is a gap between adults and teenagers, in terms of understanding, that each technology brings in its own form of communication pattern.

#### MATERIALS AND METHODS

Thorough literature survey will be carried out regarding theoretical and applied aspects. Data will be collected concerning mobile phone usage from different graduate colleges in Rawalakot (Azad Kashmir). Statistical techniques will be applied to estimate psychosocial effects of mobile phone usage. These techniques include; descriptive statistics, regression and correlation structures.

Data collection will be made from the sample of 60 students in the graduate colleges of Rawalakot. Purposive sampling technique and questionnaire will be used to get the purpose.

#### ARITHMETIC MEAN

Arithmetic mean may be defined as the sum of the values divided by the number of values in the set. Its formula is,

$$A.M = \bar{x} = \frac{\sum X_i}{N}, i = 1, 2, \dots, N.$$

#### VARIANCE AND STANDARD DEVIATION

The average of the square of the deviations taken from mean is called variance and

positive square root of variance is called standard deviation.

$$Var(x) = \sigma^2 = \frac{\sum (X - \mu)^2}{N}$$

And standard deviation is:

$$S.D(x) = \sigma = \sqrt{\frac{\sum (X - \mu)^2}{N}}$$

It investigates the dependence of one variable (dependent variable y) on another variable (independent variable x).

$$Y = \alpha + \beta X + \epsilon$$

Where

$\alpha$  = Intercept term

$\beta$  = Regression coefficient

$\epsilon$  = Random error term

#### CORRELATION

If the relationship between a dependent variable and an independent is linear, it is known as simple correlation coefficient of Y on X.

$$r = \frac{n \sum XY - \sum X \sum Y}{\sqrt{[n \sum X^2 - (\sum X)^2][n \sum Y^2 - (\sum Y)^2]}}$$

$$, -1 < r < +1$$

(Agarwal, 2003).

SPSS will be used for the analysis of data.

#### RESULTS AND DISCUSSION

The total number of participants that completed the survey questionnaire, consisting of fifteen questions, was 60 ( $n = 60$ ). Information was gathered from different colleges of Rawalakot

#### Gender and age groups of students

The samples of 60 students were 43 girls and 17 boys. A further breakdown as per their

age groups and percentages represented below.

Age				
	Frequency	Percent	Valid Percent	Cumulative Percent
Valid 19.00	14	23.3	23.3	23.3
20.00	24	40.0	40.0	63.3
21.00	11	18.3	18.3	81.7
22.00	5	8.3	8.3	90.0
23.00	5	8.3	8.3	98.3
25.00	1	1.7	1.7	100.0
Total	60	100.0	100.0	

#### Rate of happiness

The responses revealed that there were 86.66% who answers 'Happy' and 13.34% answers 'Unhappy'. Details are given below:

Options	Boys	Girls	Percentages
Happy	14	38	86.66%
Unhappy	3	5	13.34%

#### Text messages affecting proper language and impinging on communication skills

The responses revealed that 88.45% said 'Yes' meaning that believed they were losing proper language while using text messages. And 67% losing communication skills while using text messages. These are the negative impacts of mobile phone usage.

#### Mean and Variance

Descriptive Statistics

	N	Mean	Std. Deviation	Variance
Outgoing	60	5.3333	8.62528	74.395
Incoming	60	6.5500	8.18934	67.065
Hour	60	7.5667	4.46594	19.945
Age	60	20.450	1.32031	1.743
Numbers	60	161.03	129.141	16677.4
Sending	60	225.63	247.638	61325.0
Receiving	60	238.05	225.678	50930.9
Bill	60	345.33	282.113	79588.0
Price	60	7636.6	5737.18	3291524
		667	075	2.938
Valid N (list wise)	60			

This table shows average of receiving calls and messages more than outgoing calls and sending messages. A social contact has each student approximately more than 150. Age of student is less variably than other variables.

**Regression and Correlation:** Using age is dependent variable and outgoing calls is independent variable, we find the regression line that is:

$$Y = 20.563 - 0.021X$$

Coefficients

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
Constant	20.563	.201		102.483	.000
Outgoing	-.021	.020	-.138	-1.064	.292

a. Dependent Variable: Age

The following table 1 shows the correlation between incoming calls and outgoing calls, which represent positively high correlation between them. Also table 2 represent positive high correlation between sending text messages and receiving text messages.

**Table:1 Correlations**

	Incoming	Outgoing
Pearson Correlation	1	.832**
Incoming Sig. (2-tailed)		.000
N	60	60
Pearson Correlation	.832**	1
Outgoing Sig. (2-tailed)	.000	
N	60	60

\*\* . Correlation is significant at the 0.01 level (2-tailed).

**Table:2 Correlations**

	Sending	Receiving
Pearson Correlation	1	.868**
Sending Sig. (2-tailed)		.000
N	60	60
Pearson Correlation	.868**	1
Receiving Sig. (2-tailed)	.000	
N	60	60

\*\* . Correlation is significant at the 0.01 level (2-tailed).

### Psychological and Physical Effects

The major themes are maturity of students and legal age. Both these reflect the level of physical and psychological development in students that in turn establishes a confidence to provide them with a mobile phone. Need for the device reflects that mobile phones are a necessity from an appropriate age for some family situations. In this research we observe that colour of mobile effects on psychological behaviour on student. 83% students like black colour, 13% like white, 3% like blue and 1% like green.

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### Descriptive Statistics

	N	Mini	Max	Mean	Std. Deviation
Hours	60	1.00	16.00	7.5667	4.46594
Valid N	60				

### Summary and Conclusion

The findings from this study revealed that perceptions on students mobile phone use are not satisfactory. The major concerns expressed through this study are:

- Addiction to texting
- Bullying and abusive text messages
- Interruption of family time, study time
- Anti-social activities
- Health issues such as lessening physical activities
- Psychological diseases such as stress etc.

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