

# A STUDY ON EFFECT OF MOBILE PHONE USAGE ON ACADEMIC PERFORMANCE OF THE STUDENTS IN COIMBATORE CITY

<sup>1</sup>Mr. P. Varun sarathy, <sup>2</sup>Dr. S. Kowsalya

<sup>1</sup>Student of II M.COM CS, <sup>2</sup>Assistant Professor  
Department of Commerce with Corporate Secretaryship,  
Dr. N. G. P. Arts and Science College, Coimbatore, Tamil Nadu, India

**Abstract:** Mobile phone literacy has become a crucial skill in the current knowledge and information society particularly in university communities. However, a number of challenges impact on the access of users to electronic information, including those that go beyond just the technologies available to users and the skills they have for using them. Without the ability to manipulate and use information effectively by academics, the significant investment by university libraries, and other national and international donor agencies to ensure access to and use of information resources for the use of learning, learning and research may remain grossly under-utilized and a waste of investments by academics in colleges. The main objective is to evaluate the perception of students towards information literacy based on self-efficacy scale ILSES and to find out the impact of demographic variables towards perception of students towards information literacy. The conclusion is that the research pointed out that there is still a higher preference being given by recruiters to persons with a traditional classroom learning degrees as against those from E- learning courses. It is therefore suggested that more awareness must be created about the equivalence of the E- learning courses.

**Keywords:** Mobile phone literacy, academic performance and Coimbatore city

## INTRODUCTON

The study is centrally focused on mobile phone usage among the youngsters in the select city namely Coimbatore. The problem that the researcher identifies is based on several factors like gender, age, educational and financial backgrounds of the users. The relationship between these factors and the mobile phone usage behavior in terms of usage time and purpose marks the significant influential elements for the problem statement, therefore, the research problematizes these aforementioned factors with the mobile usage behavioral patterns and their significant rate of influence.

## STATEMENT OF THE PROBLEM

The study is centrally focused on mobile phone usage among the youngsters in the select city namely Coimbatore. The problem that the researcher identifies is based on several factors like gender, age, educational and financial backgrounds of the users. The relationship between these factors and the mobile phone usage behavior in terms of usage time and purpose marks the significant influential elements for the problem statement, therefore, the research problematizes these aforementioned factors with the mobile usage behavioral patterns and their significant rate of influence.

## SCOPE OF THE STUDY

The research lays its foundation in the locality and centralized among the youth of the present generation. The regional results help in analyzing the collective behavioral patterns of the youngsters which further can be beneficial to them in order to understand their consumerism and can be beneficial to the mobile phone vendors and marketers to strategize their sales-boost.

## OBJECTIVES

- To know the study the socio-economic characteristics of respondents.
- To study about the factor influence to use mobile phone for academic purpose for students.
- To study the extent of usage/dependence of mobile phones and its effect on academic performance and behaviour of medical students.
- To find the effects of mobile phone on academic performance of students from various educational background.
- To compare the academic performance (on the basis of academic grade) of the mobile user students before and after use of mobile phones.

## TOOLS AND TECHNIQUES USED FOR ANALYSIS:

- Simple Percentage Analysis
- Chi square
- Oneway Anova

- Weighted Average method
- Ranking Analysis

#### LIMITATION OF STUDY:

- The study is limited in its sense in terms of its geographic constraints.
- The researcher has chosen Coimbatore city as the select city for collecting the data.
- The same methodology could be applied to any specific location and a wider approach could result in enriched data and analysis.
- Another limitation with regard to this paper is that the data analysis.
- The analysis of the data is limited to certain factors and they are not deeply dived in order to understand the psychometrics and digital consumerism of the users
- It is just focused on a few factors and the results are only based on the behavior and surface-level consumerism. These contribute to the limitations of the study and this paper.

#### REVIEW OF LITERATURE

Stuckey (2021) identifies 5 components like imagination, appropriation, objectification, incorporation and conversion as causes of addiction to cell phone. He explained that cell phones have unprecedented ability to exert influence on our social interactions and daily life. They are very intrusive in our social space. This technology could bring man to be individualistic alienating him from society or converging a single language or set of norms.

Sara (2020) discussed the influence of cell phones on teen culture. Cell phones purely have a negative effect on the social and ethical behavior because they socially breed a culture of introverted, isolated people who are unable to deal with real interpersonal interaction. They train to communicate with others through cell phone. Ethically, they reduce social standards and breed the idea that ignoring morals and social laws and standards put in place by those who have overcome the urge to become a paranoid with their cell phone.

Laramie (2019) discovered and coined the syndrome, "RINGXIETY". This phenomenon is auditory hallucination of ringing cell phone. It is a strong ' It is a hallucination or a false belief that makes a person hears his/her cell phone ringing when it is not. It triggers anxiety when we feel or perceive cell phone ringing. This arises out of addiction to cell phone. Therefore there is dire need for cure of ringxiety as it causes stress and frustration.

According to the study of Udoh (2015) entitled the "The role of mobile phones in education and counselling", the result of his study reveal that some people may want to ban cellphones from classroom for good reasons. But as some advocate of mobile learning would argue. They stated that they did not ban pens and paper in school that student can write in school even though you could poke someone in the eye. This means that mobile phone will be utilize to enhance the students' performance and to those practicing counsellor.

#### DATA ANALYSIS AND INTERPRETATION

- Simple Percentage Analysis
- Chi square
- Oneway Anova
- Weighted Average method
- Ranking Analysis

#### SIMPLE PERCENTAGE ANALYSIS:

The percentage analysis is mainly used to specify the number of respondents in this sample falling in each category. Further, it is also used as a standard for comparison purpose.

A number of respondent's distribution shows the number of frequencies in various classes, which helps to get preliminary ideas with respects to objectives under study. Therefore, as a first step, number of respondents for various variables under this study constructed. To interpret the results comprehensively percentage values are computed.

#### FORMULA:

$$\text{Percentage analysis} = \frac{\text{Number of respondents}}{\text{Total number of respondents}} * 100$$

#### TABLE SHOWING GENDER OF THE RESPONDENTS

S.No	Gender	Number of Respondents	Percentage (%)
1	Male	69	58
2	Female	51	43
	<b>Total</b>	<b>120</b>	<b>100</b>

Source: Primary data

#### INTERPRETATION

From the above table it is found that 58% of the respondents were Male and 43% of the respondents were Female. Majority 58% of the respondents were Male.

**TABLE SHOWING MARITAL STATUS OF THE RESPONDENTS**

S.No	Marital status	Number of Respondents	Percentage (%)
1	Married	57	48
2	Unmarried	63	53
	<b>Total</b>	<b>120</b>	<b>100</b>

Source: Primary data

#### INTERPRETATION

From the above table it is found that 48% of the respondents were married and 53% of the respondents were Unmarried. Majority 53% of the respondents were Unmarried.

#### CHI-SQUARE

#### CHI-SQUARE TEST TO FIND THE SIGNIFICANT RELATIONSHIP BETWEEN DURATION OF MOBILE PHONES USAGE DURATION AND PROBLEMS FACED IN MOBILE PHONE

##### Null Hypothesis (Ho)

There is no significant relationship between of mobile phones usage duration and problems faced in mobile phone.

##### Alternative Hypothesis (Ha)

There is significant relationship between duration of mobile phones usage duration and problems faced in mobile phone.

Calculated Value	Table Value	Degree of freedom	Level of significance	Result
17.195	39.997	20	5%	Rejected

The table 4.21 deals with the calculated value of  $\chi^2$  (17.195) is less than table value (39.997) so the hypothesis is rejected. Hence it can be concluded that there is significant relationship between duration of mobile phones and problems face while using mobile phones.

#### CHI-SQUARE TEST TO FIND THE SIGNIFICANT RELATIONSHIP BETWEEN STUDENT'S PERCEPTIONS ON THE POSITIVE EFFECTS OF MOBILE PHONE AND LEARNING ACHIEVEMENT

##### Null Hypothesis (Ho)

There is no significant relationship between student's perceptions on the Positive effects of mobile phone and learning achievement.

##### Alternative Hypothesis (Ha)

There is significant relationship between student's perceptions on the Positive effects of mobile phone and learning achievement.

Calculated Value	Table Value	Degree of freedom	Level of significance	Result
42.25	46.928	25	5%	Rejected

The table 4.21 deals with the calculated value of  $\chi^2$  (42.25) is less than table value (46.928) so the hypothesis is rejected. Hence it can be concluded that there is significant relationship between student's perceptions on the Positive effects of mobile phone and learning achievement.

## ONE WAY ANOVA

### OFTEN PLAYING GAMES AND ADDICTED TO MOBILE USAGE - ONEWAY ANOVA

#### Null Hypothesis

There is no significant difference in the Often playing games and addicted to mobile usage.

#### Alternative Hypothesis

There is a significant difference in the Often playing games and addicted to mobile usage.

**TABLE 4.3.1**

#### ANOVA

Often playing games and addicted to mobile usage					
	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	.008	3	.003	.010	.999
Within Groups	35.886	116	.246		
Total	35.893	119			

## INTERPRETATION

The above table highlights that the data for constructs were subjected to independent sample t-test. The Levene's test for equality of variance was applied. The f-statistics value has corresponding significance (or p-value) greater than 0.05 for construct like Often playing games and addicted to mobile usage.

This means that for these construct null hypothesis gets to be rejected as "There is a significant difference in the Often playing games and addicted to mobile usage"

## WEIGHTED AVERAGE METHOD

### STUDENT'S PERCEPTIONS ON THE NEGATIVE EFFECTS OF MOBILE PHONE ON LEARNING ACHIEVEMENTS

FACTORS	Strongly Disagree	Disagree	Can't Say	Strongly Agree	Agree	Mean score	Rank
Keep my mobile phone on and the ringtone disturbs the class	275	72	93	30	1	471	2
I purchased the mobile phone without the permission of the parents	200	136	51	36	11	434	5
I send missed calls to class fellows to disturb the classes	275	112	42	46	0	475	1
I waste my time sending/writing SMS during class work	210	120	99	2	14	445	4

The Mobile Phone has put negative impact on the students moral values	170	180	66	22	8	446	3
The Mobile Phone is a waste of time for students	165	124	96	26	11	422	6

### INTERPRETATION

The above table result it is found that sending missed calls to class fellows to disturb the classes ranks 1, Keep my mobile phone on and the ringtone disturbs the class ranks 2, The Mobile Phone has put negative impact on the students moral values ranks 3, wasting my time sending/writing SMS during class work ranks 4, I purchased the mobile phone without the permission of the parents ranks 5 and The Mobile Phone is a waste of time for students ranks 6.

### INFERENCE

Majority of the respondents say that sending missed calls to class fellows to disturb the classes ranks 1.

### RANKING ANALYSIS

A Rank analysis is any of several statistics that measure an ordinal association. The relationship between ranking of different ordinal variables or different ranking of the same variable. Where a "ranking" is the assignment of the label "First", "second", "third" etc., to different observations of particular variable. A Rank analysis measure the degree of similarity two rankings, and can be used to assess the significance of the relation between them.

#### RANKING OF MOBILE PHONE USAGE BY STUDENTS

FACTORS	TOTAL	AVERAGE	RANK
Online class	369	52.71	1
Watch movies	280	40.00	3
Using social media	238	34.00	4
Gamming purpose	305	43.57	2
Online Shopping	166	23.71	6
Taking photos and videos	138	19.71	7
Audio / Video calling	184	26.29	5

### INTERPRETATION

The above table result it is found that sending missed calls to class fellows to disturb the classes ranks 1, Keep my mobile phone on and the ringtone disturbs the class ranks 2, The Mobile Phone has put negative impact on the students moral values ranks 3, wasting my time sending/writing SMS during class work ranks 4, I purchased the mobile phone without the permission of the parents ranks 5 and The Mobile Phone is a waste of time for students ranks 6.

### INFERENCE

Majority of the respondents say Online class ranks 1.

### FINDINGS FOR SIMPLE PERCENTAGE

- Mostly 37% of the respondents age is Below 30 years.
- Majority 58% of the respondents were Male.
- Majority 53% of the respondents were Unmarried.
- Majority 64% of the respondents were from Science Background.
- Majority 28% of the respondents use oppo.
- Majority 55% of the respondents completed P.G.
- Majority 66% of the respondents from Urban area.

## FINDINGS FOR CHI-SQUARE

Result shows that there is significant relationship between duration of mobile phones and problems face while using mobile phones.

Result shows that there is significant relationship between student's perceptions on the Positive effects of mobile phone and learning achievement.

## FINDINGS FOR ONE WAY ANOVA

Result shows that there is a significant difference in the Often playing games and addicted to mobile usage.

## FINDINGS FOR RANKING METHOD

Majority of the respondents say Online class ranks 1.

## FINDINGS FOR WEIGHTED AVERAGE METHOD

Majority of the respondents say that sending missed calls to class fellows to disturb the classes ranks 1.

## SUGGESTIONS

- Cell phones can be a learning tool for student as they can learn a new form of technology as well as explore the Internet if the phone has the capability to do so.
- Many cell phones allow access to the Internet, which can help a student obtain answers to questions very quickly and easily.
- We believe that Smartphones can allow students to work in groups on projects, sharing information and discoveries. They can move toward a common goal, again, in a format they are comfortable using.
- We believe that there should be a certain limit for usage of mobile phone. Because over usage of mobile phone could also leads to certain health issue like eye sight weakening, headache and other problem as well.
- We recommend teachers to set ground rules for smartphones in classroom, along with clear expectations of what happens if they're used inappropriately. Just like with anything else, too much of something can be a bad thing but just enough, can be perfect for learning in new ways

## CONCLUSION

Cell phones are an integral part of our daily life as well as university life. Even a casual observation of today's university students will reveal cell phones being used, both overtly and covertly, in every possible campus setting, including the classroom. As cell phone technology continues its rapid development, the device appears capable of contributing to student learning and improved academic performance. In essence, the study revealed that cell phones are beneficial for learning but learners have a tendency to abuse them. Cell phones are increasingly one of the most popular information access devices and what stands out from the study is the high use of interactive, multiuser functions which can at times be disruptive or beneficial during study. Cell phones are undeniably convenient, helpful tools for study and can be a hurtful source of distraction depending on the attitude and use pattern of a student

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