Project Report

On

CELLPHONE USE AND IT'S EFFECT ON UNDERGRADUATE ACADEMIC PERFORMANCES

Submitted

in partial fulfilment of the requirements for the degree of

BACHELOR OF SCIENCE

in

MATHEMATICS

by

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CERTIFICATE

This is to certify that the dissertation entitled, **CELLPHONE USE AND IT'S EFFECT ON UNDERGRADUATE ACADEMIC PERFORMANCES** is a bonafide record of the work done by **LAKSHMI KARTHIKEYAN** under my guidance as partial fulfillment of the award of the degree of **Bachelor of Science in Mathematics** at St. Teresa's College (Autonomous), Ernakulam affiliated to Mahatma Gandhi University, Kottayam. No part of this work has been submitted for any other degree elsewhere.

Date:24/02/23
Place: Ernakulam

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1:..... 2: .....

DECLARATION

I hereby declare that the work presented in this project is based on the original work done by me under the guidance of Ms.Arunima P S, Assistant Professor, Department of Mathematics and Statistics, St. Teresa's College(Autonomous), Ernakulam and has not been included in any other project submitted previously for the award of any degree.

Ernakulam. **LAKSHMI KARTHIKEYAN**

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ACKNOWLEDGEMENT

I want to thank God first and foremost for making it possible for me to finish this endeavour. I want to thank my guide MS. ARUNIMA P S(Assistant Professor), Department Of Mathematics and Statistics, St. Teresa's College, Ernakulam, for all of the help and advice she has given me. Also I would like to thank Dr.Ursala Paul(HOD).

Ernakulam. LAKSHMI KARTHIKEYAN

Date:24/02/23 AB20BMAT009

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Chapter 1

INTRODUCTION

Nowadays the mobile phone has become one of the most valuable things in one's life and a part of our lifestyle. Usage of mobile phones for a longer period indicates obsession with the virtual world. As mobile phones have become more affordable, everyone, especially youths in today's world, carries one or two phones at a time. Because of the ongoing pandemic it is a must for students who are studying in schools or colleges to have a mobile phone. The increase in the usage of mobile phones and various other technologies has created a huge impact on everybody's life, especially that of a student's life.

So here we are conducting a survey on " Cellphone Use and Its Effect on Undergraduate Academic Performances". Each student's learning skills and their impact will be analyzed by using chi square method and two types of t-test method. It also analyses the negative effects of using mobile phones on the mental health of the students. Prolonged usage of cellphones can increase addiction and other diseases which can end up affecting their academics.

The data for the study has been collected through a google form. The data was collected from Degree students. A total of 254 responses have been recorded.

The research indicates that most of the students use smartphones, which only a few of them use for academic performances. The results obtained give an outlook of how cellphone usage has played a vital role in today's world.

1.1 STATISTICS

Statistics is a branch that deals with every aspect of the data. Statistical knowledge helps to choose the proper method of collecting the data and employ those samples in the correct analysis process to effectively produce the results. In short, statistics is a crucial process which helps to make the decision based on the data. Statistics concerns the collection of data, organization, interpretation, analysis and data presentation. The main purpose of using statistics is to plan the collected data in terms of experimental designs and statistical surveys. Statistics is considered a mathematical science that works with numerical data. In short, statistics is a crucial process which helps to make the decision based on the data.

1.1.1 Population

The set or group about which information is required is called the population. The individuals constituting a population are called the units of the population. A population can be finite or infinite. The process of collecting data for the survey is called enumeration. This can be done by enumerating every unit of the population or enumerating only a representative part of it.

1.1.2 Variables

A variable is any characteristic, number, or quantity that can be measured or counted. A variable may also be called a data item. Age, sex, business income and expenses, country of birth, capital expenditure, class grades, eye color and

vehicle type are examples of variables.

1.1.3 p-value

Error probability is expressed by the value. Specifically, it refers to the likelihood that the null hypothesis will be rejected when it is true. To put it another way, the likelihood that the statistic's value will fall inside the crucial range if the null hypothesis is correct is what is meant by the term "P value." The likelihood that we would be wrong to reject the null hypothesis decreases with decreasing P value. A common cut-off number is 0.05, meaning that if the P value is less than 0.05, the null hypothesis should be rejected.

1.2 Significance of Study

Due to the spread of the corona virus, everything was made online including the educational system. The sudden changes in the educational system affected the students and the academic performances. The situation of the students being trapped inside the four walls during the pandemic has made their addiction to mobile phone increase rapidly. Students require a healthy and hardworking mind-set so that they can focus on their studies without any hesitation. By conducting this survey, we are trying to learn about the different factors that are affecting the students' academic performance.

1.3 Limitations Of Study

Both benefits and limits are present in our study. The only data that we have examined is for undergraduate students between the ages of 18 and 24. There was no consideration for students in other age groups. Our error goes down as sample

size goes up. Nevertheless, our poll was only able to reach 254 respondents owing to time constraints and other limitations.

1.4 OBJECTIVES

•To find and interpret the academic performance of students before and after covid.

•To analyze whether the usage of mobile phones has increased or not among females and males.

•To find and interpret the relationship between location and various factors.

•To find and interpret the relationship between gender and various factors.

1.5 SPSS

IBM SPSS is a robust statistical software platform. It provides a user-friendly interface and a comprehensive collection of capabilities that enable your business to swiftly get useful insights from your data. High precision and high-quality decision-making are supported by sophisticated statistical techniques. The whole analytics lifecycle from data preparation and administration to analysis and reporting is covered.

For this study we use only SPSS to calculate the p-value. And then we compare this p-value to the signjificant level.

Chapter 2

DATA DESCRIPTION

The data for this study is collected from undergraduate students of age group 18-24. The data was collected by an online survey through google form.

The variables used are

1)Gender(Male or Female)

2)Location(Rural or Urban)

3)The marks obtained in two different years(percentage)

The other factors that are used are the time of using mobile phone for different purposes(in hours), how cellphone usage has affected in the students mental health and academic performance. It also shows how the covid-19 pandemic has increased the cellphone usage of the students and affected their studies.

A total of 254 student's responses were taken into consideration were 104 were males and 150 were females. Also there were 119 students from rural area and 135 students from urban area.

Chapter 3

METHODOLOGY

The google form was circulated among undergraduate students of ages from 18 to 24. The survey consists of 20 questions in which 12 out of 20 are taken into consideration. The questionnaire consists of questions like age, gender, parent's level of education, marks obtained by the student in various academic years, location, etc. Three types of methods are used to find relation between different variables. They are chi-square test, paired sample t-test and independent sample t-test.

3.1 CHI SQUARE TEST

A chi-square test is a statistical test used to compare observed and expected values. Or we can say that it is the significant relation between two variables. It is a non-parametric test. The both variables should be categorical variables. The test is used for measuring large samples.

H_0 is called null hypothesis which represents that there is no relationship between two variables.

H_1 is called alternative hypothesis which represents that there exists a significant relationship between two variables.

The significant level is the probability of rejecting the null hypothesis, when it is true. The most commonly used significant value is 0.05.

First step for finding the chi-square test is to obtain the observed frequency from the given data. The next step is to find the expected frequency by the following equation.

Expected frequency = (row sum * column sum) / table sum

Degrees of freedom(df) is the maximum number of independent values that can vary without breaking the constraints.

$$df = (column - 1) * (row - 1)$$

The equation to find chi-square value is as follows

$$\chi^2 = \Sigma \frac{(O-E)^2}{E}$$

where χ^2 is the chi-square test statistic

O is the observed frequency

E is the expected frequency

Chi- square value can be obtained degrees of freedom and significance level for the table.

p-value is measured to out the probability that an observed difference value has been occured. If p-value is greater than significance value we accept H_0. If p-value is less than significance value then we reject H_0 and accept H_1.

3.2 PAIRED SAMPLE T TEST

A paired sample t test is used to compare two groups where each of the observation can be paired to each other. When two samples are given the observation of sample

can be paired with the other. This test can be used to compare the observations of the same sample before and after event. It is based on the variances of the two values or the differences. This difference is denoted by d.

The formula of paired t test can be written as the sum of the differences between each pair divided by the square root of n times the sum of the differences squared less the sum of the squared differences, overall n-1.

A paired samples t-test always uses the following null hypothesis: H0: $\mu 1 = \mu 2$ (the two population means are equal)

The alternative hypothesis can be either two-tailed, left-tailed, or right-tailed:

H_1 (two-tailed): $\mu 1 \neq \mu 2$ (the two population means are not equal)

H_1 (left-tailed):$\mu 1 < \mu 2$ (population 1 mean is less than population 2 mean)

H_1 (right-tailed):$\mu 1 > \mu 2$ (population 1 mean is greater than population 2 mean)

We use the following formula to calculate the test statistic t:

$$\text{t} = x_d \ / \ (s_d/\text{n})$$

where x_d: sample mean of the differences

s_d: sample standard deviation of the differences

n: sample size (i.e. number of pairs)

If the p-value that corresponds to the test statistic t with (n-1) degrees of freedom is less than your chosen significance level (common choices are 0.10, 0.05, and 0.01) then you can reject the null hypothesis.

3.3 INDEPENDENT SAMPLE T TEST

The independent-samples t-test is used to assess the difference between the means of two independent or unrelated groups. That is, to check whether they are significantly different from each other. It is also called a between groups design and can also be used to analyze a control and experimental group. There are two variables in independent samples t-test. They are independent(grouping) and dependent (test variable) variables. The independent variable divides the group into two such as males or females for the variable gender while the test variable describes each case on some quantitative dimension such as test performance. The t test evaluates whether the mean value of the test variable for one group differs significantly from the mean value of the test variable for the second group.

Null Hypothesis(H0):

$$H_0\colon\ \mu_1 = \mu_2,$$

-or-

$$H_0\colon\ \mu_1 - \mu_2 = 0$$

Alternative (Non-Directional) Hypothesis(H_1):

$$H_1\colon\ \mu_1 \neq \mu_2$$

-or-

$$H_1\colon\ \mu_1 - \mu_2 = 0$$

where μ_1 stands for the mean for the first group and μ_2 stands for the mean for the second group.

The formula for the two-sample t test (a.k.a. the student's t-test) is shown below

$$t = \frac{\bar{x}_1 - \bar{x}_2}{s_p \sqrt{\frac{1}{n_1} + \frac{1}{n_2}}},$$

where, t=t-value

x_1 = mean of first sample

x_2 = mean of second sample

S = standard deviation of two groups

n_1 =number of observations in first sample

n_2 =number of observations in second sample

Degrees of freedom, df = n_1+ n_2-2

After choosing the confidence level if the calculated t value is greater than the critical value then we reject the null hypothesis.

Chapter 4

DATA ANALYSIS

4.1 CHI SQUARE T TEST

4.1.1 Based On Gender

Gender and Owning a Mobile Phone

Table 4.1: Observed Frequency

GENDER	NO	YES	TOTAL
FEMALE	7	143	150
MALE	0	104	104
TOTAL	7	247	254

H0 = There is no relationship between gender and owning a mobile phone

H1= There is relationship between gender and owning a mobile phone

Table 4.2: Expected Frequency

GENDER	NO	YES	TOTAL
FEMALE	4.1	145.9	150
MALE	2.9	101.1	104
TOTAL	7	247	254

p-value=.025, p-value is less than 0.05. Therefore, we reject the null hypothesis.

Hence, we can conclude that there exists a significant relation between gender

and owning a mobile phone.

Gender and Using a Mobile Phone

Table 4.3: Observed Frequency

GENDER	Less than 1 hour	1-2 hour	2-3 hour	3-4 hour	4-5hour	More than 5 hour	TOTAL
FEMALE	10	21	19	20	32	48	150
MALE	5	15	6	17	16	45	104
TOTAL	15	36	25	37	48	93	254

H0 = There is no relationship between gender and usage of mobile phones

H1= There is relationship between gender and usage of mobile phones

Table 4.4: Expected Frequency

GENDER	Less than 1 hour	1-2 hour	2-3 hour	3-4 hour	4-5hour	More than 5 hour	TOTAL
FEMALE	8.9	21.3	14.8	21.9	28.3	54.9	150
MALE	6.1	14.7	10.2	15.1	19.7	38.1	104
TOTAL	15	36	25	37	48	93	254

p-value = 0.221 Since the p-value is greater than 0.05, we accept the null hypothesis.

Hence, we can conclude that there exists no significant relation between gender and usage of mobile phones.

Gender and Usage of Mobile Phones for Academic Purposes

Table 4.5: Observed Frequency

GENDER	Less than 1 hour	1-2 hour	2-3 hour	3-4 hour	4-5hour	More than 5 hour	TOTAL
FEMALE	36	61	23	15	5	10	150
MALE	38	42	11	8	5	0	104
TOTAL	74	103	34	23	10	10	254

H0 = There is no relationship between gender and usage of mobile phones for academic purposes

H1= There is relationship between gender and usage of mobile phones for academic purposes

Table 4.6: Expected Frequency

GENDER	Less than 1 hour	1-2 hour	2-3 hour	3-4 hour	4-5hour	More than 5 hour	TOTAL
FEMALE	43.7	60.8	20.1	13.6	5.9	5.9	150
MALE	30.3	42.2	13.9	9.4	4.1	4.1	104
TOTAL	74	103	34	23	10	10	254

p-value = 0.035

Since the p value is less than 0.05, we reject the null hypothesis.

Hence, we can conclude that there exists a significant relation between gender and usage of mobile phones for academic purposes.

Gender and the Importance of Mobile Phones in One's Life.

Table 4.7: Observed Frequency

GENDER	MAYBE	NO	YES	TOTAL
FEMALE	45	13	92	150
MALE	19	5	80	104
TOTAL	64	18	172	254

H0 = There is no relationship between gender and the importance of mobile phones in one's life.

H1= There is a relationship between gender and the importance of mobile phones in one's life.

Table 4.8: Expected Frequency

GENDER	MAYBE	NO	YES	TOTAL
FEMALE	37.8	10.6	101.6	150
MALE	26.2	7.4	70.4	104
TOTAL	64	18	172	254

p-value = 0.33 Since the p value is greater than 0.05, we accept the null hypothesis.

Hence, we can conclude that there exists no significant relation between gender and the importance of mobile phones in one's life.

Gender and Usage of Cellphone is the Reason for Low Marks

Table 4.9: Observed Frequency

GENDER	MAYBE	NO	YES	TOTAL
FEMALE	69	42	39	150
MALE	37	21	46	104
TOTAL	106	63	85	254

H0 = There is no relationship between gender and usage of cellphone is the reason for low marks.

H1= There is a relationship between gender and usage of cellphone is the reason for low marks.

Table 4.10: Expected Frequency

GENDER	MAYBE	NO	YES	TOTAL
FEMALE	62.6	37.2	50.2	150
MALE	43.4	25.8	34.8	104
TOTAL	106	63	85	254

p value = 0.010

Since the p value is less than 0.05, we reject the null hypothesis.

Hence, we can conclude that there exists a significant relation between gender and usage of cellphones is the reason for low marks.

Gender and Marks Scored

Table 4.11: Observed Frequency

GENDER	AFTER COVID	BEFORE COVID	NO CHANGE	TOTAL
FEMALE	17	86	47	150
MALE	10	73	21	104
TOTAL	27	159	68	254

H0 = There is no relationship between gender and marks scored.

H1= There is a relationship between gender and marks scored.

Table 4.12: Observed Frequency

GENDER	AFTER COVID	BEFORE COVID	NO CHANGE	TOTAL
FEMALE	15.9	93.9	40.2	150
MALE	11.1	65.1	27.8	104
TOTAL	27	159	68	254

p value = 0.098

Since the p value is greater than 0.05, we accept the null hypothesis.

Hence, we can conclude that there exists no significant relation between gender and marks scored.

4.1.2 Based On Location

Location and Owning a Mobile Phone

Table 4.13: Observed Frequency

LOCATION	NO	YES	TOTAL
RURAL	3	116	119
URBAN	4	131	135
TOTAL	7	247	254

H0 = There is no relationship between location and owning a mobile phone.

H1= There is relationship between location and owning a mobile phone.

Table 4.14: Expected Frequency

LOCATION	NO	YES	TOTAL
RURAL	3.3	115.7	119
URBAN	3.7	131.3	135
TOTAL	7	247	254

p value = 0.830

Since the p value is greater than 0.05, we accept the null hypothesis.

Hence, we can conclude that there exists no significant relation between location and owning a mobile phone.

Location and Daily Usage of Mobile Phones

Table 4.15: Observed Frequency

LOCATION	Less than 1 hour	1-2 hour	2-3 hour	3-4 hour	4-5hour	More than 5 hour	TOTAL
RURAL	7	26	9	19	26	32	119
URBAN	8	10	16	18	22	61	35
TOTAL	15	36	25	37	48	93	254

H0 = There is no relationship between location and daily usage of mobile phones

H1= There is relationship between location and daily usage of mobile phones

Table 4.16: Expected Frequency

LOCATION	Less than 1 hour	1-2 hour	2-3 hour	3-4 hour	4-5hour	More than 5 hour	TOTAL
RURAL	7	16.9	11.7	17.3	22.5	43.6	119
URBAN	8	19.1	13.3	19.7	25.5	49.4	135
TOTAL	15	36	25	37	48	93	254

p value = .003

Since the p value is less than 0.05, we reject the null hypothesis.

Hence, we can conclude that there exists a significant relation between location

and usage of mobile phones for academic purposes.

Location and Usage of Mobile Phones for Academic Purposes

Table 4.17: Observed Frequency

LOCATION	Less than 1 hour	1-2 hour	2-3 hour	3-4 hour	4-5hour	More than 5 hour	TOTAL
FEMALE	33	51	17	12	5	1	119
MALE	41	52	17	11	5	9	135
TOTAL	74	103	34	23	10	10	254

H0 = There is no relationship between location and usage of mobile phones for academic purposes

H1= There is relationship between location and usage of mobile phones for academic purposes

Table 4.18: Expected Frequency

GENDER	Less than 1 hour	1-2 hour	2-3 hour	3-4 hour	4-5hour	More than 5 hour	TOTAL
FEMALE	34.7	48.3	15.9	10.8	4.7	4.7	119
MALE	39.3	54.7	18.1	12.2	5.3	5.3	135
TOTAL	74	103	34	23	10	10	254

p value = 0 .275

Since the p value is greater than 0.05, we accept the null hypothesis.

Hence, we can conclude that there exists no significant relation between location and usage of mobile phones for academic purposes.

Location and the Importance of Mobile Phones in One's Life.

Table 4.19: Observed Frequency

LOCATION	MAYBE	NO	YES	TOTAL
RURAL	38	6	75	119
URBAN	26	12	97	135
TOTAL	64	18	172	254

H0 = There is no relationship between location and the importance of mobile phones in one's life.

H1= There is a relationship between location and the importance of mobile phones in one's life.

Table 4.20: Expected Frequency

GENDER	MAYBE	NO	YES	TOTAL
RURAL	30	8.4	80.6	119
URBAN	34	9.6	91.4	135
TOTAL	64	18	172	254

p value = 0.048

Since the p value is less than 0.05, we reject the null hypothesis.

Hence, we can conclude that there exists a significant relation between location and the importance of mobile phones in one's life.

Location and Usage of Cellphone is the Reason for Low Marks

Table 4.21: Observed Frequency

LOCATION	MAYBE	NO	YES	TOTAL
RURAL	51	30	38	119
URBAN	55	33	47	135
TOTAL	106	63	85	254

H0 = There is no relationship between location and usage of cellphone is the reason for low marks.

H1= There is a relationship between location and usage of cellphone is the reason for low marks.

Table 4.22: Expected Frequency

LOCATION	MAYBE	NO	YES	TOTAL
RURAL	49.7	29.5	39.8	119
URBAN	56.3	33.5	45.2	135
TOTAL	106	63	85	254

p value = 0.887

Since the p value is greater than 0.05, we accept the null hypothesis.

Hence, we can conclude that there exists no significant relation between location and usage of cellphones is the reason for low marks.

Location and Marks Scored

Table 4.23: Observed Frequency

LOCATION	AFTER COVID	BEFORE COVID	NO CHANGE	TOTAL
RURAL	12	76	31	119
URBAN	15	83	37	135
TOTAL	27	159	68	254

H0 = There is no relationship between location and marks scored.

H1= There is a relationship between location and marks scored.

Table 4.24: Expected Frequency

LOCATION	AFTER COVID	BEFORE COVID	NO CHANGE	TOTAL
RURAL	12.6	74.5	31.9	119
URBAN	14.4	84.5	36.1	135
TOTAL	27	159	68	254

p value = 0 .921

Since the p value is greater than 0.05, we accept the null hypothesis.

Hence, we can conclude that there exists no significant relation between location and marks scored.

4.2 INDEPENDENT SAMPLES T TEST

4.2.1 Based On Gender

Gender and Mental Health

Table 4.25: Group Statistics

GENDER	N	MEAN	STD. DEVIATION	STD. ERROR MEAN
FEMALE	150	3.07	1.359	0.111
MALE	104	2.51	1.033	0.101

H0 = There is no significant difference between gender and mental health.

H1= There is a significant difference between gender and mental health.

Independent Samples Test

	Levene's Test for Equality of Variances		t-test for Equality of Means						
	F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
								Lower	Upper
Equal variances assumed	6.705	0.01	3.53	252	0	0.55705	0.15779	0.2463	0.8678

p-value = 0.01

Here the p-value is less than 0.05. Therefore, null hypothesis is rejected.

Thus, there is a significant difference between gender and mental health.

Gender and Sleep Cycle

Table 4.26: Group Statistics

GENDER	N	MEAN	STD. DEVIATION	STD. ERROR MEAN
FEMALE	150	3.3267	1.3336	0.10889
MALE	104	2.7115	1.10316	0.10817

H0 = There is no significant difference between gender and sleep cycle.

H1= There is a significant difference between gender and sleep cycle.

Independent Samples Test

	Levene's Test for Equality of Variances		t-test for Equality of Means						
	F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
								Lower	Upper
Equal variances assumed	9.953	.002	3.873	252	.000	.61513	.15881	.30237	.92789

p-value = .002

Here the p-value is less than the critical value. Therefore, null hypothesis is rejected.

Thus, there is a significant difference between gender and sleep cycle.

Location and Mental Health

Table 4.27: Group Statistics

LOCATION	N	MEAN	STD. DEVIATION	STD. ERROR MEAN
RURAL	119	2.92	1.322	0.121
URBAN	135	2.76	1.211	0.104

H0 = There is no significant difference between location and mental health.

H1= There is a significant difference between location and mental health.

Independent Samples Test

	Levene's Test for Equality of Variances		t-test for Equality of Means						
	F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
								Lower	Upper
Equal variances assumed	1.904	0.169	1.015	252	0.311	0.161	0.159	-0.152	0.474

p-value = 0.169

Here the p-value is greater than 0.05. Therefore, null hypothesis is accepted.

Thus, there is no significant difference between location and mental health.

Location and Sleep Cycle

Table 4.28: Group Statistics

LOCATION	N	MEAN	STD. DEVIATION	STD. ERROR MEAN
RURAL	119	3.1261	1.23202	0.11294
URBAN	135	3.0296	1.32113	0.1137

H0 = There is no significant difference between location and sleep cycle.

H1= There is a significant difference between location and sleep cycle.

Independent Samples Test

	Levene's Test for Equality of Variances		t-test for Equality of Means						
	F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
								Lower	Upper
Equal variances assumed	0.052	0.82	0.599	252	0.55	0.09642	0.16097	-0.2206	0.41344

p-value=0.82

Here the p-value is greater than 0.05. Therefore, null hypothesis is accepted.

Thus, there is no significant difference between location and sleep cycle.

4.3 PAIRED SAMPLES T TEST

4.3.1 Marks Scored in 12th and 1st semester

Table 4.29: Group Statistics

MARKS	N	MEAN	STD. DEVIATION	STD. ERROR MEAN
MARKS IN 12TH	84.9234	254	8.92587	0.56006
MARKS IN 1ST SEM	75.3122	254	14.34559	0.90012

H0 = There is no significant difference between marks obtained in 12th and 1st semester.

H1= There is a significant difference between marks obtained in 12th and 1st semester.

Paired Samples Test

Paired Differences					t	df	Sig. (2-tailed)
Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
			Lower	Upper			
9.61118	12.5475	0.78730	8.06068	11.16168	12.208	253	0.000

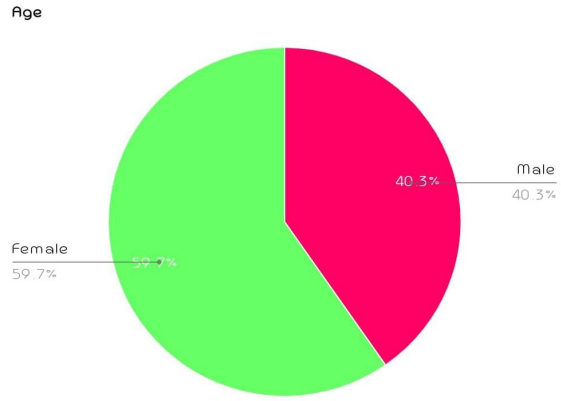
p-value = 0

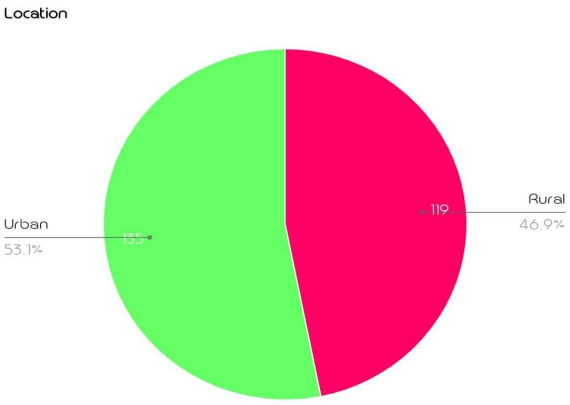
Here the p-value is less than 0.05, therefore the null hypothesis is rejected.

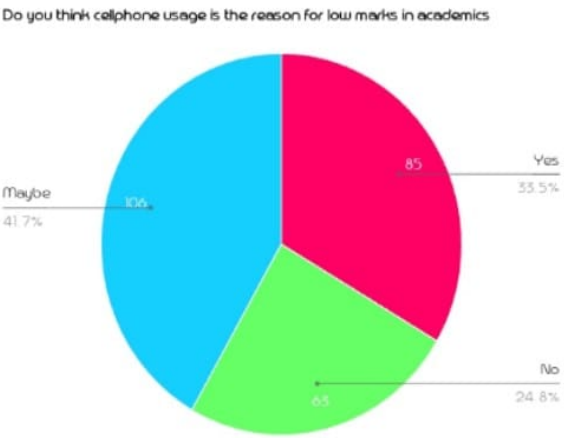
Thus, there is a significant difference the marks obtained in two different years.

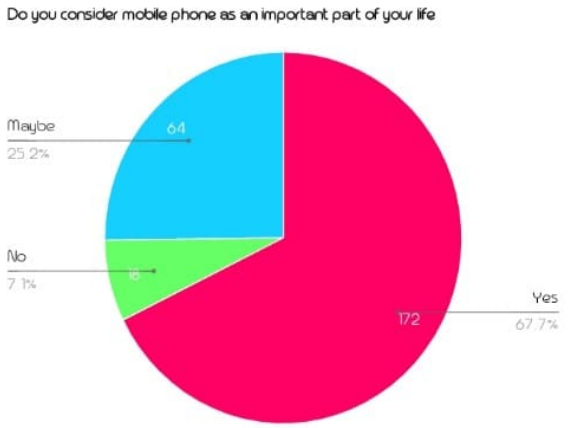
PRESENTATION OF DATA

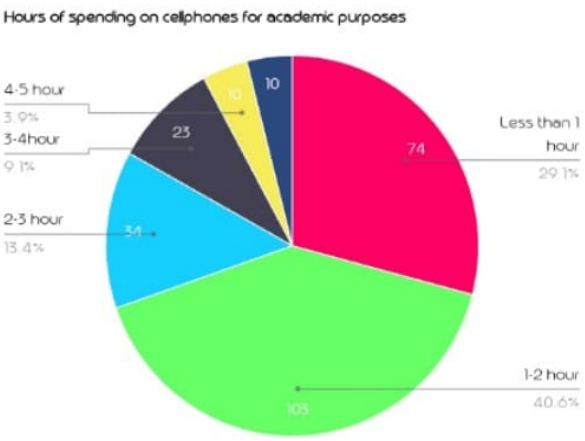
4.4 PIE CHARTS

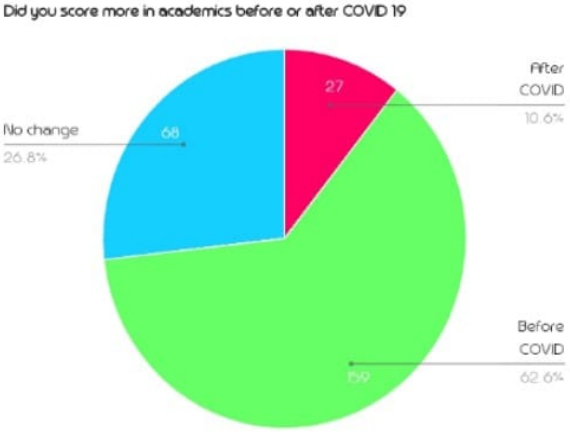


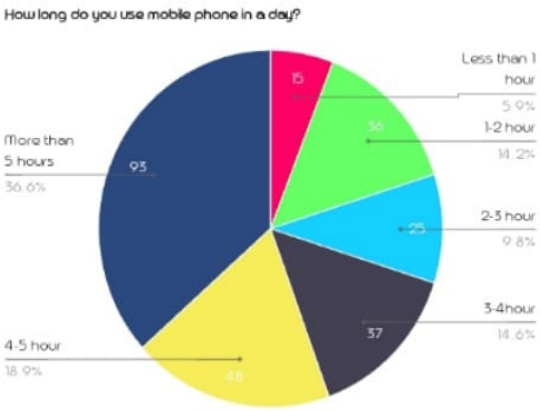


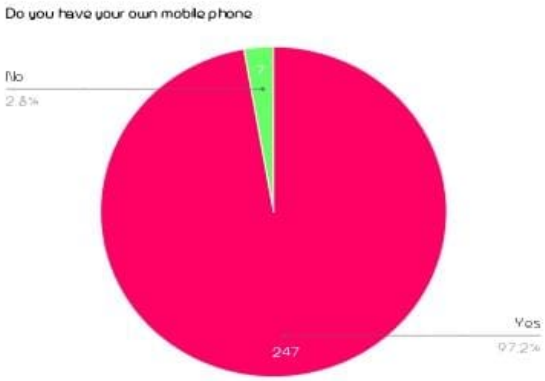









How long do you use mobile phone in a day?
Less than 1 hour
5.9%
1-2 hour
14.2%
2-3 hour
9.8%
3-4hour
14.6%
4-5 hour
18.9%
More than 5 hours
36.6%
15
36
25
37
48
93


Do you have your own mobile phone
No
2.8%
Yes
97.2%
7
247

Chapter 5

CONCLUSION

By performing all the three statistics test in SPSS we came to the conclusion that the usage of the mobile phones has had a great impact on the students life. From the survey it is clear that only 2.8 percentage of students doesn't own a mobile phone while the rest 97.2 percentage of students own a mobile phone. The test shows that the students scored more marks before Covid. There is a significant relation between gender and usage of phone for academic performances. and low marks obtained There exist a significant relation between gender and usage of mobile phone is the reason for low marks.

There is a significant difference between gender and mental health by the usage of phone also it affects the sleep cycle of the students. The grades received for first semester and 12th grade fluctuate significantly.

Also students shows that they use mobile phones as a study material. Not many of them consider mobile phone as an important part of their life. There has been difference between both the genders scoring for academics more.

Chapter 6

REFERENCES

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