



PHONE ADDICTION: ITS EFFECT AND IMPACT ON COLLEGE STUDENTS- A CASE STUDY

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Abstract

In this paper an attempt has been made to study the effect and impact of smart phone(s) on studies among the college students. To meet the stated objective we have collected information of attitude towards the information technology by questionnaire. A sample of 230 college students from different colleges from different districts of Assam, under Dibrugarh University, India was taken. Analysis of the result will give us the reflection about the use of phone. Although it is a case study it will give us an overall idea about phone addiction among the youths of Assam.

The analysis has been carried out using two-dimensional pie, bar diagrams and t^2 - test for independence of attributes.

Key Words: Descriptive Statistics, χ^2 -Test for Independence of Attributes.

1. Introduction

The mobile phones are one of the greatest inventions in 20th century. We cannot imagine how our life without the mobile phone is. It is an obvious truth that the mobile phone gives us benefit in some aspects of life. Using mobile phones distributes our communication to make it easier than before. Besides a mobile phones provide us with a lot of functions like relaxing with music, chatting or playing. In the high tech world, the mobile phones are equipped with all necessary functions. People can chat together for hours whenever they have time. They talk together from hour to hour, from day to day. As a result, using mobile phone for long time affects our health. The waves from cell phone are very harmful to our physical body such as our heart and brain. A recent study tells that our brain is seriously damaged when using mobile phone too much. It is the wave from the mobile phone that causes the headache. Due to danger of the cell phone wave to our brain, using phones too much can cause a poor memory. Besides, the wave of the cell phone is very strong so it can cause heart disease if we keep cell phone near our body, especially under the pillow while sleeping. With many functions of cell phone, the young can listen to music anytime they want. By using a headphone we can enjoy some videos, music all time without annoying anyone. However, one effect of listening by earphone for a long time is that it damages our ear, even it can cause deaf. Moreover, the excessive use of cell phone causes teens and young adults to experience restlessness and it can make them feel difficult to fall asleep. It is an obvious fact that using cell phones too much can affect our brain, cause sleepless, and damage our ears.

Phone Addiction – sometimes called Internet Addiction. Internet Use Disorder (IUD) or Internet Addiction Disorder (IAD) is a fairly new phenomenon. It's often described as a serious problem involving the inability to control use of various kinds of technology in particular the internet, smartphones, tablets etc. and social networking sites like facebook, twitter and instagram etc. The way tech addiction is diagnosis can differ from country to country, but surveys in the US and Europe shows that between 1.5% and 8.2% of the population suffers from internet addiction. Phone addiction is recognized as a widespread health problem in other countries, including Australia, China, Japan, India, Italy, Japan, Korea, and Taiwan.

1.1. About phone addiction

Tech or screen addiction is abroad term devised to define obsession with online video games, smart phones, tablets, online gambling online shopping, sexting etc. It is indisputable that information technology has changed our lives for the better in myriad ways. We are better connected, well informed, more aware and can easily do much, much more – all at the click of a button.

We can research any topic from manure from our garden to the components of rocket fuel. We can find our childhood friends on social media or look at Alpha Centauri with ease. Smartphones and tablets functions as a personal diary, daily planner, calculator, email dispatcher, camera and music player and are compact easy to carry devices.

But all this comes with a price excessive use of this technology can easily become dependence and also addictive.

1.2. Types of screen dependence

- **Repeated checking / activity of phone:** One glance at a youngster is enough to tell us about this obsession. Some are checking or sending messages at a given time. Changing profile on social sites, updating status messages, uploading selfies and forwarding youtube videos and links is as necessary as breathing. Reportedly many teens take



their smartphone phone to bathroom, so as to not miss out any messages/phone call. Adults, particularly young ones, are afflicted with this as well.

- The advanced software that makes online games challenging makes it more addictive as well. Initially the person may play for an hour or two per day, and then will play four or five times as much, often squeezing in time at night, forgoing sleep or rest. Unplugged is a book written by university professor Ryan van Cleave, about his journey in and out of addiction. He was addicted to playing “World of Warcraft” for days at a time and almost lost his family and job in the process.
- Sending provocative pictures over the phone to strangers is sexting and is often done over snaachat, where the pictures disappear immediately after viewing. Viewing and downloading online pornography, adult fantasy role-play, frequenting online chat rooms and dating websites often using different pseudonyms, are symptoms of hypersexuality, a disfunctional type of behaviour.
- According to an ASSOCHAM study (Associated Chambers of Commerce and Industry in India), contrary to laws over 70% children over the age under 13 are facebook users, often with the knowledge of their parents. This obsession results in repeated checking of profiles and activities of others, and also constant updating of one’s own activities on this site. Recently, an Australian woman slowly poisoned her child and posted updates of her illness in order to generate sympathy, money and attention on facebook.

After China, India has the largest population of mobile users. In our country, the ratio of personal mobile phones to persons is far more than the number of toilets available. India has 554.8 million mobile users and 143.2 million unique internet users. Around 94.7 million users’ access internet from their Desktop / Laptop, Smart TV or Mobile Data connections such as GPRS / EDGE and 3G / 4G together.

A new generation survey conducted by the cartoon network channel in India in 2009 revealed that 95% kids live in homes with mobile phones, while 73% of Indian kids are mobile phone users. Interestingly, of these, 70% fall under the age group of seven to 10 years while 76% fall under the age group of seven to ten years while 76% are in age group of eleven to fourteen years. In 2013, the Indian Council for Medical Research also conducted a study on 2750 subjects in the age group of 18- 40 years in select urban communities across India showing an alarming rate of technology dependence.

1.3. Towards addictions and its effect and causes

Some of the very common symptoms and effects of fallen in tech addiction are:

- Inattention to eating, lack of hunger and in severe cases, malnutrition, emaciation, and collapse. Typically, a tech addict will stick to only those items which can be sipped or eaten with one hand, leaving other hand to continue playing (sometimes players even use adult diapers to save time). There have been almost ten cases from South Korea when persons playing online games for at a stretch without a break, have suddenly collapsed and died.
- Digital attention disorder is sometimes happen in very young children. Irritability, anger, uncontrollable tantrum and frustration is seen, when they are prevented from “playing”. In Western countries, children as young as four are being treated for this addicted. In 2010, a 22-year old man in South Korea murdered his mother who used to complain about his gaming habit and then calmly returned to playing.
- Every minute spent on the Internet takes away from any other normal, particularly socializing with actual eye contact, conversing, making friends, even living life. It is debatable whether the tech addict turns to his screen because he is socially awkward to begin with and needs friends or his tech addiction makes him socially awkward. The two seem to perpetuate each other and the tech addict will be a person who cannot make conversation, has few real world friends.
- In South Korea, a case was reported where a couple with a three month old baby was so engrossed in gaming that they neglected the baby to feed. The baby died due to starvation. Tech addicts may completely neglect their duties at school or work and concoct elaborate lies in order to continue playing.
- Depression, low-esteem, feeling suicidal is common among tech addicts. The initial euphoria fades away leaving a feeling of being sad alone. Social media sites create illusions that everyone seems to have plenty of friends and is perennially happy, which only increases this depression. Children who have tech addiction have higher chance of having Asperger’s syndrome, attention deficit disorder and learning disabilities.
- Nothing will seem more important than satisfying the addiction, often triggering criminal activities. Two Chinese boys argued over the ownership of a virtual sword. One murdered the other over what were really a few pixels! A teen in Vietnam murdered an 80 year old woman for some money, in order to continue his online gaming. “I fear the day technology will surpass our human interaction, the world will have a generation of idiots.” – Albert Einstein.



2. Objective of the present study

The main objective of the present work is to examine if there is any effect and impact on studies of youth (college students) by smart phone(s) or not.

3. Methodology

The primary data have been collected by a questionnaire and interview schedule from a sample of 230 students (respondents) out of 961 students; who are participated in the various competitions in the Youth Festival, 2016 of Dibrugarh University. The Festival was held in D.H.S.K. College, Dibrugarh in January 2016. The sample size was determined by Rao soft software and information collected by using convenient sampling method of both male and female students.

Based on the responses of the questionnaires data were tabulated, analysed and interpreted by simple statistical diagrams.

4. Limitation of the study

The study has some limitations, as some of the students do not responses to the questions and left the questionnaire blank. There are some problems of taking information as the data is collected within a short period during youth festival which affect in responses as they themselves were very busy.

One of the limitations which can be mentioned here is that the same number of students from all the districts of Dibrugarh University did not attended the youth festival and also the data was not collected district-wise, it was collected conveniently. So it may affect the district-wise interpretation.

5. A brief overview of theory

Let the attributes of positive responses of male and female students are denoted by A and B respectively and that of negative responses by r and s respectively.

- **Yule's coefficient of association:**

For measuring the intensity of association between two attributes A and B , G.Udny Yule,s coefficient of association, Q is defined as

$$Q = \frac{(AB)(rs) - (AS)(rB)}{(AB)(rs) + (AS)(rB)};$$

- **Chi-square test:**

Under the null hypothesis for testing that there is no significant difference between the observed and the expected results; the χ^2 -test for significance is given by:

$$\chi^2 = \sum_{i=1}^k \frac{(O_i - E_i)^2}{E_i}; \quad \text{follows } \chi^2 \text{ distribution with } (k-1) \text{ d.f.}$$

Where, E_i and O_i are respectively the i^{th} observed and expected frequencies.

If calculated χ^2 is less than (greater than) tabulated $\chi^2_{0.05 \text{ or } 0.01}$ for $(k-1)$ degree of freedom, then we accept (or reject) the null hypothesis and conclude that insignificant (or significant) difference exists between the observed and the expected results.

6. Analysis and findings

The findings at a glance are explained by pie and bar diagrams are as follows:

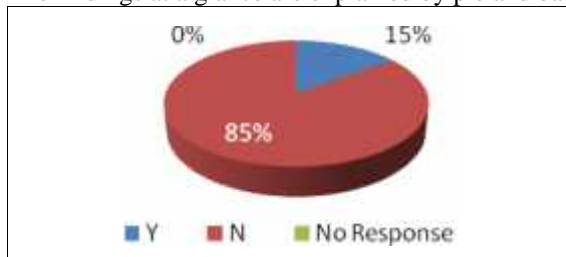


Figure 1: Most of the students use phone for personal communication.

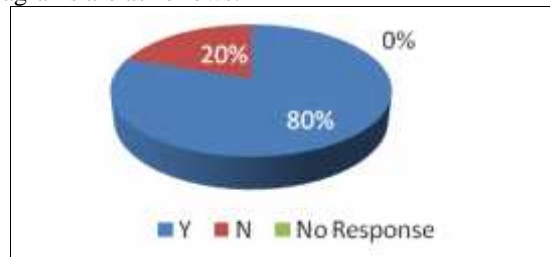


Figure 2: Most of the students check phone after waking up, so they are somehow addicted to smart phone.

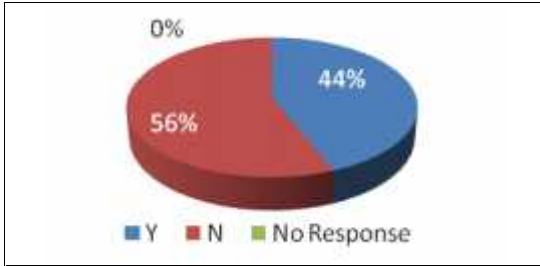


Figure 3: More than 50% students are conscious regarding their eating habits.

Which indicate that some students have a tendency to check their phone during eating which can have negative effects on nutrition.

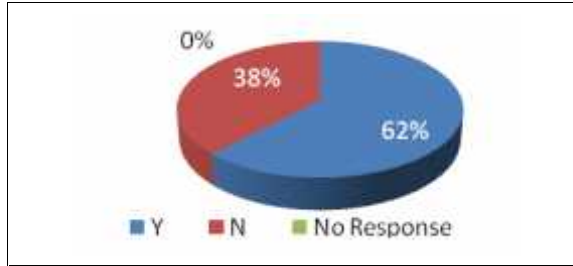


Figure 4: 62% students check their phone on the way to college and home

Which means that students are too much addicted to phone and do not want to miss a single call or message. It may break the attention to the present happenings in the surroundings and lead to accidents.

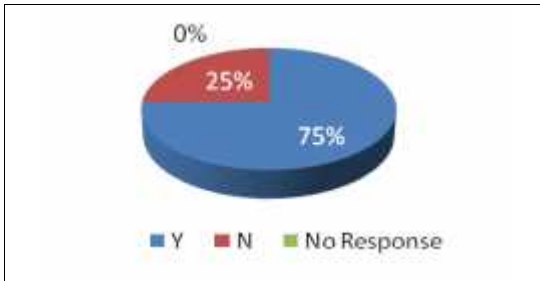


Figure 5: 75% students use smart phone.

Though in this generation we can say that the mobile phones are important accessories to human being and if it is a smart phone it works wonders and it influence the students too. A smart phone has many features; one can perform any kind of works within no minutes.

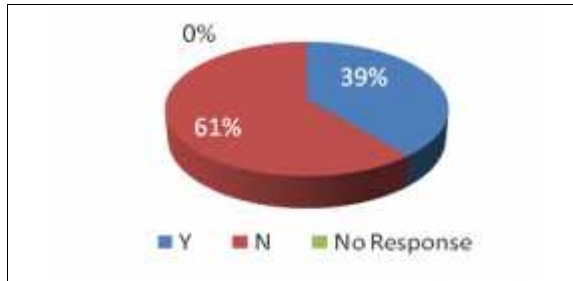


Figure 6: 39% students spend time on virtual affairs such as chat, which a natural phenomenon seen in human is being.

As there is a saying that “too much of anything is harmful”, the same way too much of addiction regarding this will affect the relationship with the real life partners and may create distances too. But most of them are not engaged in such kind of activities.

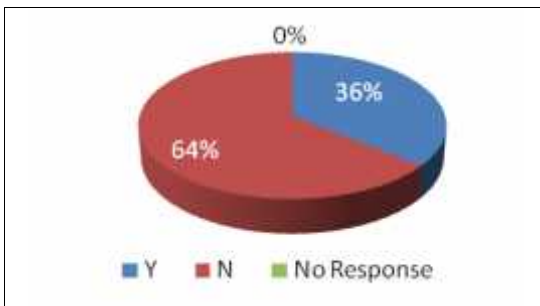


Figure 7: Most of the students (64%) do not gamble.

Students are sensitive to spending.

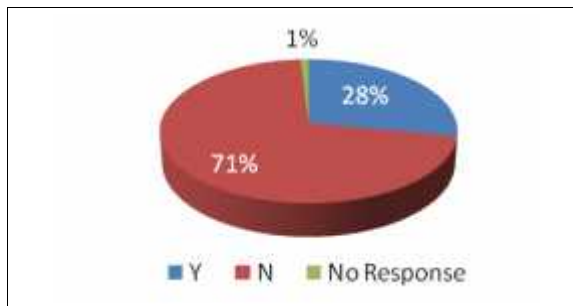


Figure 8: Most of the students do not piled up information unnecessarily.

Students' asses' information whenever they require.

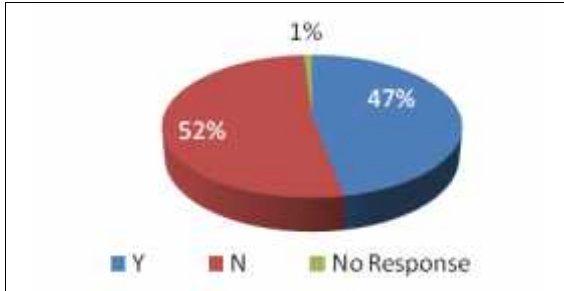


Figure 9: Half the students are using social media.

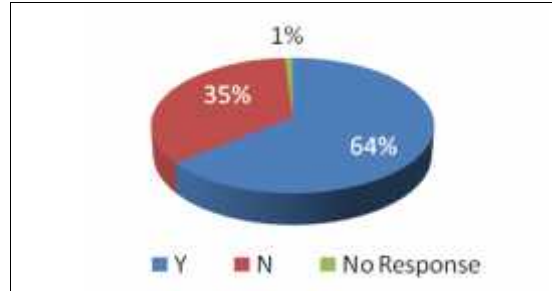
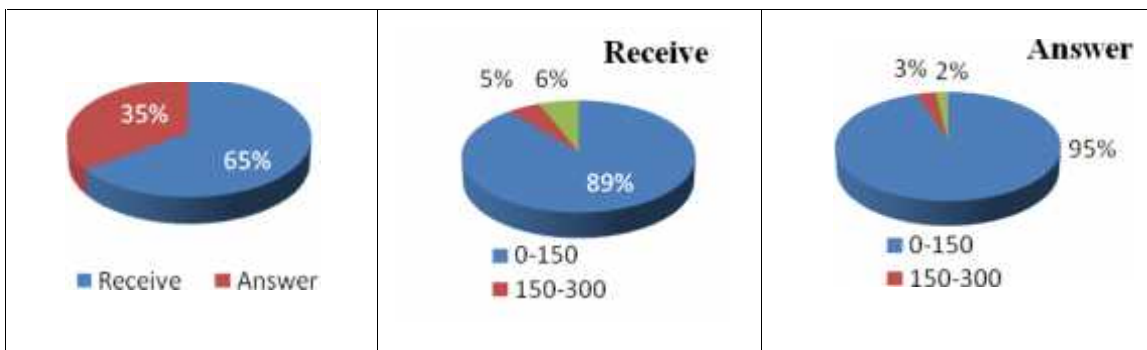
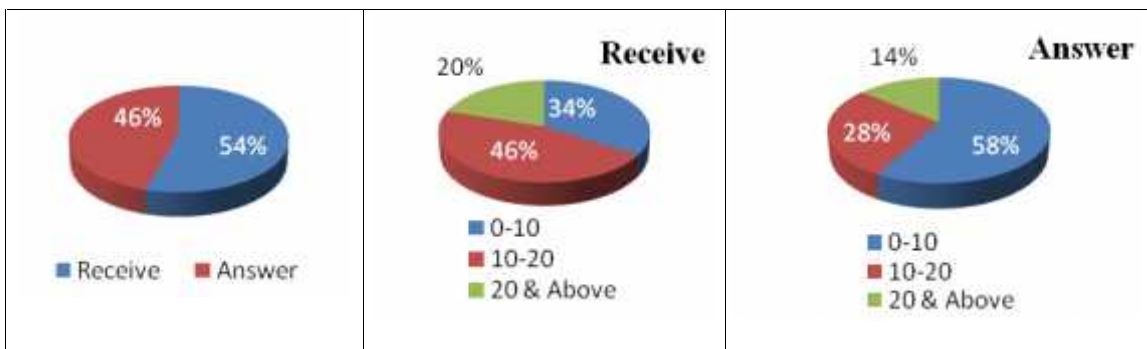


Figure 10: Most of the students are using phone for listening music, watching videos, cinema etc.

Indicates, students are very much aware/consciousness about the things that are going on in the society.



From figures 11, 12 and 13, imply that, about 90% students receive and answer up to 150 messages in a day which is abnormal.



From figures 14, 15 and 16, shows that, less than 50% students do not make excess calls that they use judiciously.



Figure 17: Time spent on phone varies for students. 25% use it for less than an hour, 32% use it up to 2 hours and a significant portion 43%

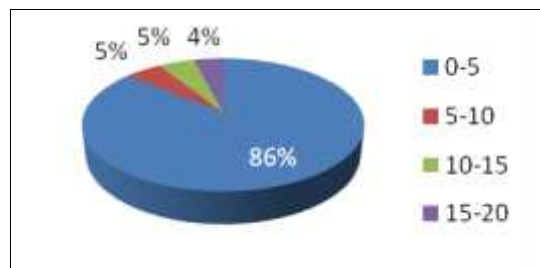


Figure 18: Most of the students do not play online games.



use it for more than 2 hours.

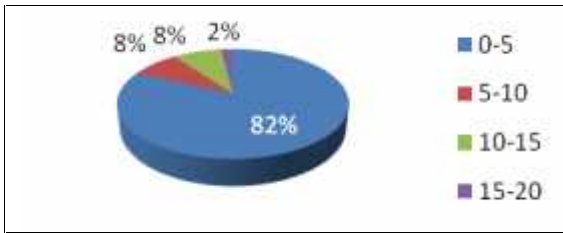
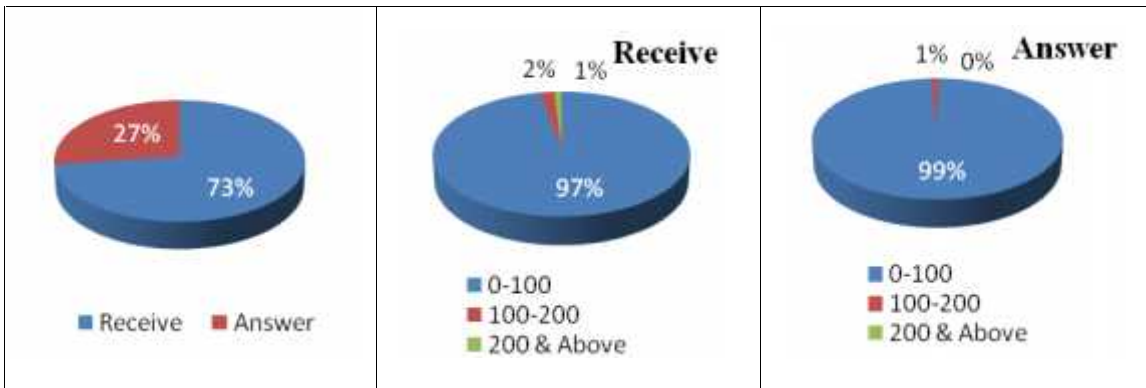
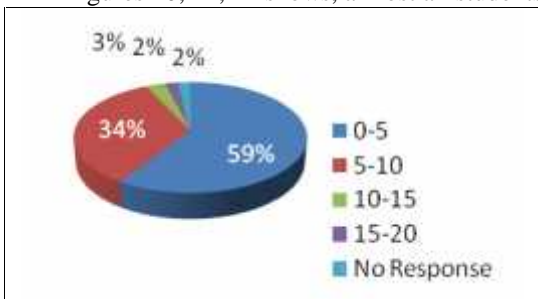


Figure 19: Most of the students purchase things on online but the number is less that is they are not obsessed to the amazing items available on e-market.



Figures 20, 21, 22 shows, almost all students receive and answer less than 100 e-mails per week.



From the figure 23, it is observed that half of the students are using mobile phones after passing HSLC examination.

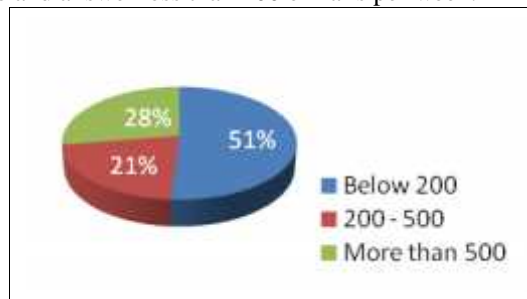


Figure 24 shows, half of the students spent less than rupees 200 per month on phone. The spending on phone is moderate.

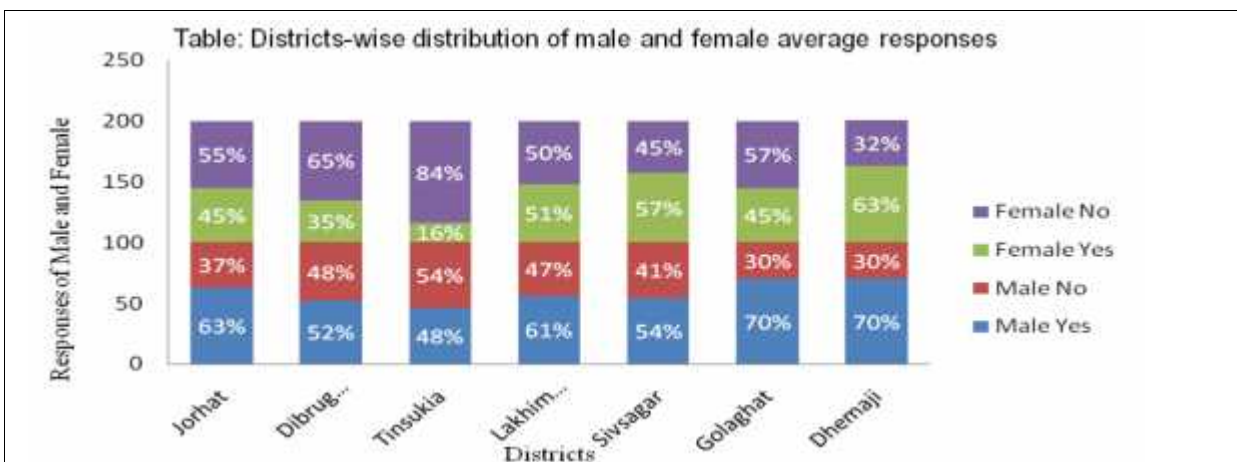


Figure 25 shows, that more than 50% male students are addicted to phone and 40% female students are addicted to phone of different districts.



6.1. Yules coefficient of attributes, $Q = 0.0099$.

6.2. Chi-square test for independence of attributes:

Table 1: Value of χ^2

Districts	Gender	Responses	O_i	E_i	$\frac{(O_i - E_i)^2}{E_i}$
Jorhat	Male	Yes	63	63.23	0.0012
		No	37	44.46	1.2354
	Female	Yes	45	37.85	1.2836
		No	55	54.46	0.0096
Dibrugarh	Male	Yes	52	63.23	2.0018
		No	48	44.46	0.2848
	Female	Yes	35	37.85	0.2345
		No	65	54.46	2.0911
Tinsukia	Male	Yes	46	63.23	4.4648
		No	54	44.46	1.8666
	Female	Yes	16	37.85	12.9752
		No	84	54.46	16.3630
Lakhimpur	Male	Yes	56	63.23	0.8397
		No	44	44.46	0.0037
	Female	Yes	48	37.85	2.8473
		No	52	54.46	0.1327
Sivsagar	Male	Yes	54	63.23	1.3527
		No	46	44.46	0.0545
	Female	Yes	57	37.85	9.7254
		No	43	54.46	2.4253
Golaghat	Male	Yes	70	63.23	0.7247
		No	30	44.46	4.7038
	Female	Yes	45	37.85	1.3523
		No	55	54.46	0.0053
Dhemaji	Male	Yes	70	63.23	0.7247
		No	30	44.46	4.7038
	Female	Yes	63	37.85	16.0601
		No	38	54.46	5.2825
$\chi^2 =$					93.7499

The tabulated χ^2 at $(n-1)$ i.e., $(28-1) = 27$ degrees of freedom is 40.113 which is less than the calculated $\chi^2 = 93.75$ Hence, the null hypothesis is rejected.

6. Summary and conclusion

From our empirical investigation, the following results are observed:

➤ Using association of attributes, we get $Q = 0.0099$ which concludes that the association of attributes between the positive (or negative) response of male and female are independent,

➤ Using χ^2 - test for independence of attributes we get the $\chi^2_{cal} = 93.75$, which is greater than the $\chi^2_{tab} = 40.11$ at $(28-1) = 27$ degrees of freedom at 5% level of significance which is significant and hence the null hypothesis is rejected. Thus we may conclude that there exists a difference in responses on the basis of districts under Dibrugarh University and Sex that is, different districts has different responses which is true as mobile users of one district is different from those of the others and same as sex-wise that is, mobile users of male and female of one districts are different from those of others (which concludes that some regions or districts in this case has more mobile users that than the other regions. It is expected that from the feedback we can draw conclusions regarding the particular question, and thereby the attitude towards the information technology. Analysis of the result will give us the reflection about the use of phone. Although it is a case study it will give us an overall idea about phone addiction among the youths of Assam.

7. Suggestions

Technology immensely helps mankind, but its overuse or misuse may lead to misery. From the above analysis it is observed that there is a moderate tendency of phone addiction among the college students. For modern life use of technology is a must but it should not over power us. So to lead a normal life a judicious use of phone is advised.

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