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Attitude of the students towards the using of various electronic devices in the field of higher education

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Abstract
The way of teaching and learning process is changing day by day. It is the age of high technology, the age of Mobile Learning (M-Learning). Students are being attached with the smart phone technologies. This present study is about the attitude of the students towards the various electronic—mobile devices in the field pf higher education. Also this study gives us an idea about the students' choices of devices according to their personal criteria. The sample of this study are the students (150) of two universities. The findings showed that there is a positive attitude of the students towards the using of Electronic Devices.

Keywords: M- learning, electronic devices

Introduction

Education is a dynamic process. Day after day the way of teaching-learning process, the needs of the students are changing. In past various methods were used to enhance the quality of teaching-learning process. Then come computer which brings a dynamic change in the methods of teaching. And now, here is the time for "M-Learning". Now –a-days mobile technologies are playing an increasingly important role in college students' academic lives. Electronic devices such as smartphones, tablets, i-pads etc. help the students to connect with the world easily. We can see in the study of Fahad (2009) [4] that students have positive attitudes and perceptions towards the effectiveness of mobile learning. These electronic devices are highlighting access to information and enabling interactivity with others. Applications that run on these electronic devices let users not only consume but also discover and produce content. Kumar (2011) [8] discussed in his study about the using of smart phones in Educational Technology and its application. The paper also indicated that the birth of high speed internet access and its availability on recently evolved smart phones among the youth can potentially revolutionize the way the things were learned. As such, they continue to transform how college students learn, as well as influence their learning preferences, both within and outside the learning classroom.

The popularity of mobile technologies among college students is increasing dramatically. Convenience, flexibility, engagement and interactivity more attractive to students. However, every student has different fascination towards different electronic device. Every student choose the electronic device according to his own flexibility. Each device has own popularity and importance among the students. Each device becomes a "pocket educational device" to the students. The results of the study of Pearson and Poll (2014) [13] showed that a vast majority of college students agreed that tablets would transform the way college students learn and would encourage students to buy digital textbooks instead of print. The students of this 21th century belonged to higher education, have the tendency of fast forwarding life style. That is why in order to make their study faster and easy going process, they choose various electronic devices. When the students step into the higher education, they find the world through a different spectacles. This is a new world--- a world of technology. This thing changes the attitude of the students. However, the using of these electronic devices become the causes of the obstacles in the teaching-learning process, As we can see in the study of Rabiee. *et al.* (2013) [17], where he showed that socio cultural, structural, educational economic and legal factors were the most prominent obstacles to web technology. But students and teachers, both should find a mutual way to eradicate this problem. We should use these electronic devices for the betterment of teaching-learning process.

Thus this study help us to get a clear picture about the attitude of the students towards the using of the electronic devices and their different fascinations towards the devices.

Objectives

1. To find out the popularity of electronic devices among the students with respect to gender.
2. To find out the popularity of the electronic devices among the students with respect to discipline.
3. To find out the responses of the students towards the using of electronic devices with respect to locality.
4. To determine the response of the students towards the using of various electronic devices with respect to universities.
5. To determine the status of attitude of the students towards the using of various electronic devices with respect to their earning members of their families.
6. To find out the status of attitude of the students towards the using of various electronic devices with respect to the income of their their families.

Hypotheses

1. There is no significant differences between male and female in the using of various electronic devices.
2. There is no significant differences between the students of arts and science in the using of various electronic devices.
3. There is no significant difference between the students of rural and urban in the using of various electronic devices.

4. There is no significant difference between the students of Vidyasagar University and Calcutta University in the using of electronic devices.
5. There is no significance difference among the attitude of the students towards the using of various electronic devices with respect to their earning members of their families.
6. There is no significance difference among the attitude of the students towards the using of various electronic devices with respect to the income of their families family.

Methodology

Population

The post graduate and M. Ed students of all universities were the total population of this study.

Sample

For the convenience of data collection, the researcher chose two Universities—"Vidyasagar University" and "University of Calcutta".They were selected randomly.

Table 1: Sample Characteristics, Gender Wise

Male	Female
71	79

Table 2: Sample Characteristics, Discipline Wise

Arts	Science
114	36

Table No 3: Sample Characteristics, Locality Wise

Rural	Urban
109	41

Table 4: Sample Characteristics, Earning Members Wise

Only Father	Father And Mother	Father,Mother And Others	Others
110	20	5	15

Table 5: Sample Characteristics,Family Income Wise

Below 10000	10000-20000	20000-30000	40000-50000
27	74	32	17

Tools

Description of the Attitude Scale

A self-constructed scale was developed by the researcher. It was consisted of 32 items. Each and every item was closely related to the objective of the study. The scale was "close ended" in nature. For example— *"It will take short time to acquire knowledge by using electronic devices".

First the scale was generated and then the scale was rewarded. Some new items were added, some new items were deleted. The scale was named as Electronic Devices Using Attitude Scale.

The scale was set on 5 points scale. The categories of responses were 'strongly agree', 'agree', 'undecided', 'disagree', 'strongly disagree' and '5','4','3','2','1',were the respective scores awarded for the responses. Some items were negative in nature and the scoring was done in reverse order i.e.'1','2','3','4','5'.

Scale-All Variables

Table 6: Case Processing Summary

	N	%
Cases Valid	150	100.0
Excluuded[3]	0	0
Total	150	100.0

a. List wise deletion based on all variables in the procedure.

Table 7: Reliability Statistics

Crombach's Alpha	N Of Items
0.674	32

The reliability of the scale was found to be 0.674(cronbach alpha).

For the maintainance of the validity of items an expert was consulted.

Method of Collection of Data

By distributing the prepared scales among the students, the researcher collected her relevant data. This process was done before her. Total duration of time taken for the whole collection was seven days.

Presentation of Data

For the analysis of data, raw scores were tabulated in Excel and due to lack of spaces only descriptive statistics and necessary graphs are being presented in the following tables.

Table 8: Descriptive Statistics of the Sample

Descriptives				
			Statistic	Std.Error
Attitude of The Students Towards The Using of Various Electronic Devices in The Field of Higher Education.	Mean		123.9133	0.85509
	95% Confidence Interval For Mean	Lower Bound	122.2237	
		Upper Bound	125.6030	
	5% Trimmed Mean		124.3481	
	Median		125.0000	
	Variance		109.677	
	Std.Deviation		10.47268	
	Minimum		92.00	
	Maximum		146.00	
	Range		54.00	
	Interquartile Range		15.00	

Table 9: Group Statistics of Electronic Devices Using Attitude Scale_Gender

	Gender	N	Mean	Std.Deviation	Std. Error Mean
Attitude Of The Students Towards The Using of Various Electronic Devices	Male	69	123.1739	10.67977	1.28569
	Female	81	124.5432	10.31752	1.14639

Table 10: Group Statistics of Electronic Devices Using Attitude Scale Discipline

	Discipline	N	Mean	Std. Deviation	Std. Error Mean
Attitude of The Students Towards The Using of Various Electronic Devices	Arts	114	123.7632	10.57657	0.99059
	Science	36	124.3889	10.26861	1.71144

Table 11: Group Statistics of Electronic Devices Using Attitude Scale Locality

	Locality	N	Mean	Std. Deviation	Std. Error Mean
Attitude of The Students Towards The Using of Various Electronic Devices	Rural	109	124.2110	10.55591	1.01107
	Urban	41	123.1220	10.33488	1.61404

Table 12: Group Statistics of Electronic Devices Using Attitude Scales Institution

	Institution	N	Mean	Std. Deviation	Std. Error Mean
Attitude of The Students Towards The Using of Various Electronic Devices In The Field of Higher Education	Vidyasagar University	103	124.3301	10.68570	1.05289
	Calcutta University	47	123.0000	10.04122	1.46466

Table 13: Descriptives Statistics of Electronic Devices Using Attitude Scales Earning Members

	Earning Members	N	Mean	Std. Deviation	Std. Error
Attitude of The Students Towards The Using of Various Electronic Devices.	Only Father	110	124.2545	10.31916	0.98389
	Father And Mother	20	122.2500	13.04194	2.91627
	Father, Mother, And Others.	5	129.6000	7.23187	3.23419
	Others	15	121.7333	8.42163	2.17445
	Total	150	123.9133	10.47268	0.85509

Table 14: Descriptive Statistics of Electronic Devices Using Attitude Scale_Family Income in Rs

	Income of The Family	N	Mean	Std. Deviation	Std. Error	95%Confidence Interval For Mean	
						Lower Bound	Upper Bound
Attitude of The Students Towards The Using of Various Electronic Devices	Below 10000	27	119.2963	12.32201	2.37137	114.4219	124.1707
	10000-15000	75	125.0400	10.26598	1.18541	122.6780	127.4020
	20000-30000	34	125.6176	9.15528	1.57012	122.4232	128.8121
	40000-50000	14	122.6429	8.93228	2.38725	117.4855	127.8002
	Total	150	123.9133	10.47268	0.85509	122.2237	125.6030

Table 15: Descriptives Statistics of Electronic Devices Using Attitude Scale_Family Income in Rs.

	Income of The Family	Minimum	Maximum
Attitude Of The Students Towards The Using Of Various Electronic Devices	Below 10000	96.00	139.00
	10000-20000	95.00	146.00
	20000-30000	92.00	141.00
	40000-50000	105.00	135.00
	Total	92.00	146.00

Analysis of Using Electronic Devices

Table 16: Mobile

	Frequency
First Choice	116
Second Choice	18
Third Choice	6
Fourth Choice	10
Total	150

Frequency Table of the Choice of Mobile to the Students of Higher Education

Table 17: Tablet Frequency Table of Choice of Tablet to the Students of Higher Education.

	Frequency
First Choice	4
Second Choice	35
Third Choice	93
Fourth Choice	18
Total	150

Table 18: Smartphone

	Frequency
First Choice	21
Second Choice	91
Third Choice	26
Fourth Choice	12
Total	150

Frequency Table of Choce of Smartphone to the Students of Higher Education.

Table 19: I-Pad Frequency Table of Choice of I-Pad to the Students of Higher Education

	Frequency
First Choice	9
Second Choice	6
Third Choice	25
Fourth Choice	110
Total	150

Analysis and Interpretation

Objective Wise Analysis

O_1- To find out the popularity of electronic devices among the students with respect to gender.

To achieve this objective a null hypothesis was framed

Testing of Null Hypothesis

This hypothesis was tested at 0.05 level of significance

$H_0$1..There is no significant differences between male and female in the using of various electronic devices.

Table 20: Group Statistics of Electronic Devices Using Attitude Scale Gender

	Gender	N	Mean	Std. Deviation	Std. Error Mean
Attitude Of The Students Towards The Using Of Various Electronic Devices	Male	69	123.1739	10.67977	1.28569
	Female	81	124.5432	10.31752	1.14639

Table 21: Independent Samples Test of Elecronic Devices Using Attitude Scale Male vs. Female

			Total Attitude
			Equal Variances Assumed
t-Test Equality Of Means	T		-0.797**
	Df		148
	Sig.(2-tailed)		0.427
	Mean difference		-1.36930
	Std. Error Difference		1.71778
	95% Confidence Interval Of The Difference	Lower	-4.76385
		Upper	2.02525

**Not Significant At 0.05 Level Of Significance

As the mean value of second variable (M2-Female) of group statistic is greater than the mean value of first variable (M1-Male), the value of t is signed with (-) that is -0.797.

From this table it is seen that in case of comparing the Attitude of the students towards the using of various Electronic devices between male (M-123.1739) and female (M124.5432), the calculated $t_{(148)}$ value is 0.797 and "p" value is 0.427(p>0.05). Hence, H01 is not rejected.

So, it is concluded that male and female are not significantly not different in their attitude towards the using of various electronic devices in the field of higher education.

O2: To find out the popularity of the electronic devices among the students with respect to discipline.

To achieve this objective a null hypothesis was framed.

Testing Of Null Hypothesis-

This hypothesis was tested at 0.05 level of significance

$H_0$2: There is no significant differences between the students of arts and science in the using of various electronic devices.

Table 22: Group Statistics of Electronic Devices Using Attitude Scale Discipline

	Discipline	N	Mean	Std. Deviation	Std. Error Mean
Attitude of The Students Towards The Using of Various Electronic Devices	ARTS	114	123.7632	10.57657	0.99059
	SCIENCE	36	124.3889	10.26861	1.71144

Table 23: Independent Samples Test of Electronic Devices Using Attitude Scales Arts Vs Science-

			Total Attitude
			Equal Variances Assumed
t-Test For Equality of Means	T		-0.312**
	Df		148
	Sig.(2-tailed)		0.756
	Mean difference		-0.62573
	Std.Error Difference		2.00826
	95%Confidence Interval Of The Difference	Lower	-4.59430
		Upper	3.34283

**Not Significant At 0.05 Level Of Significance

As the mean value of the second variable (M2-Science) of group statistic is greater than the mean value of first variable (M1-Arts), the value of t is signed with (-) that is -0.312.

From this table it is seen that in case of comparing the attitude of the students towards the using of various electronic devices with respect to discipline between arts(M-

123.7632),science(M-124.3889) the calculated $t_{(148)}$ value is 0.312 and 'p' value is 0.756(p>0.05).Hence,$H_0$2 is not rejected.

So, it is concluded that students from arts and science disciplines are not significantly different in their attitude towards the using of various electronic devices.

O_3: To find out the responses of the students towards the using of electronic devices with respect to locality.

To achieve this objective a null hypothesis was framed.

Testing of Null Hypothesis

This hypothesis was tested at 0.05 level of significance.

$H_0$3- There is no significant difference between the students of rural and urban in the using of various electronic devices.

Table 24: Group Statisticsof Electronic Devices Using Attitude Scale_Locality

	Locality	N	Mean	Std. Deviation	Std. Error Mean
Attitude Of The Students Towards The Using Of Various Electronic Devices	Rural	109	124.2110	10.55591	1.01107
	Urban	41	123.1220	10.33488	1.61404

Table No 25: Independent Samples Test of Electronic Devices Using Attitude Scale Rural Vs Urban.

			Total Attitude
			Equal Variances Assumed
t-Test For Equality Of Means	T		0.566**
	Df		148
	Sig.2(2-tailed)		0.572
	Mean Difference		1.08906
	Std.Error Difference		1.92305
	95%Confidence Interval Of The Difference	Lower	-2.71112
		Upper	4.88924

**Not Significant At 0.05 Level Of Significance

From this table it is seen that in case of comparing the Attitude of the Students towards the using of various electronic devices between rural(M-124.2110) and urban(M-123.1220)the calculated $t_{(148)}$value is 0.566 and 'p' value is 0.572(p>0.05).Hence $H_0$3 is not rejected.

So,it is concluded that,students from rural and urban locality are not significantly different in their attitude towards the using of various electronic devices in the field of higher education.

O_4-.To determine the response of the students towards the using of various electronic devices with respect to universities.

To achieve this objective a null hypothesis was framed.

Testing of Null Hypothesis

This hypothesis was tested at 0.05 level of significance.

$H_0$4- There is no significant difference between the students of Vidyasagar University and Calcutta University in the using of electronic devices.

Table 26: Group Statistics of Electronic Devices Using Attitude Scales Institution

	Institution	N	Mean	Std.Deviation	Std.Error Mean
Attitude of The Students Towards The Using of Various Electronic Devices In The Field of Higher Education	Vidyasagar University	103	124.3301	10.68570	1.05289
	University Of Calcutta	47	123.0000	10.04122	1.46466

Table 27: Independent Samples Test of Electronic Devices Using Attitude Scales_Vidyasagar University Vs University Of Calcutta

		Total Attitude	
		Equal Variances Assumed	
t-Test For Equality of Means	T	0.720**	
	Df	148	
	Sig.(2-Tailed)	0.472	
	Mean Difference	1.33010	
	Std.ERROR DIFFERENCE	1.84645	
	95%Confidence Interval of The Difference	Lower	-2.31872
		UPPER	4.97891

**Not Significant At 0.05 Level of Signicance

From this table it is seen that in case of comparing the attitude of the students towards the using of various electronic devices between Vidyasagar University(M-124.3301) and University of Calcutta(M-123.0000) the calculated $t_{(148)}$ value is 0.720 and 'p' value is 0.472(p>0.05). Hence,$H_0$4 is not rejected.

So,it is concluded that students from Vidyasagar university and University of Calcutta are not significantly different in

their attitude towards the using of various electronic devices in the field of higher education

O_5- To determine the status of attitude of the students towards the using of various electronic devices with respect to their earning members of their families.

To achieve this objective a null hypothesis was framed

Testing of Null Hypothesis

This hypothesis was tested at 0.05 level of significance

$H_0$5- There is no significance difference among the attitude of the students towards the using of various electronic devices with respect to their earning members of their families.

Table 28: descriptive statistics of electronic devices using attitude scales earning members

	Earning Members	N	Mean	Std. Deviation	Std. Error
Attitude of The Students Towards The Using of Various Electronic Devices.	Only Father	110	124.2545	10.31916	0.98389
	Father And Mother	20	122.2500	13.04194	2.91627
	Father, Mother, And Others.	5	129.6000	7.23187	3.23419
	Others	15	121.7333	8.42163	2.17445
	Total	150	1239133	10.47268	0.85509

Table 29: Earning Members

		Sum of Squares	Df	Mean Square	F	Sig.
Attitude of The Students Towards The Using of Various Electronic Devices.	Between Groups	301.117	3	100.372	0.914**	0.436
	Within Groups	16040.756	146	109.868		
	Total	16341.873	149			

**Not Significant At 0.05 Level Of Significance.

From the table, it is seen that in case of comparing the attitude of the students towards the using of various electronic devices with respect to the earning members of the family, among only father(M-124.2545),father and mother(M-122.2500),father, mother and others(M-129.6000),and others(M-121.7333),the calculated $F_{(3,146)}$ value is 0.914 and 'p' value is 0.436($p>0.05$).Hence, $H_0$5 is not rejected.

So it is concluded that, earning members of the family of the students—only father, father and mother, father, mother and others, and others--- are not significantly different in their attitude towards the using of various electronic devices in the field of higher education.

O_6- There is no significance difference among the attitude of the students towards the using of various electronic devices with respect to the income of their families.

To achieve this objective a null hypothesis was framed.

Testing Of Null Hypothesis

This hypothesis was tested at 0.05 level of significance.

$H_0$6- There is no significance difference among the attitude of the students towards the using of various electronic devices with respect to the income of their families.

Table 30: Descriptive Statistics of Electronic Devices Using Attitude Scale Family Income in Rs

	Income Of The Family	N	Mean	Std. Deviation	Std. Error	95%Confidence Interval For Mean	
						Lower Bound	Upper Bound
Attitude of The Students Towards The Using of Various Electronic Devices	Below 10000	27	119.2963	12.32201	2.37137	114.4219	124.1707
	10000-15000	75	125.0400	10.26598	1.18541	122.6780	127.4020
	20000-30000	34	125.6176	9.15528	1.57012	122.4232	128.8121
	40000-50000	14	122.6429	8.93228	2.38725	117.4855	127.8002
	Total	150	123.9133	10.47268	0.85509	122.2237	125.6030

Table 31: Family Income

		Sum Of Squars	Df	Mean Square	F	Sig.
Attitude of The Students Towards The Using of Various Electronic Devices	Between The Groups	792.120	3	264.040	2.479**	0.064
	Within The Groups	15549.753	146	106.505		
	Total	16341.873	149			

**Not Significant At 0.05 Level Of Significance.

From the table it is seen that in case of comparing the Attitude of the students towards the using of various electronic devices with respect to the income of the families among below 10000(M-119.2963), 10000-20000(M-125.0400),20000-30000(M-125.6176),40000-50000(M-122.6429),the calculated $F_{(3,146)}$ value is 2.479 and 'p' value is 0.064($p>0.05$).Hence,$H_0$6 is not rejected.

So, it is concluded that family income of the students are not significantly different in their attitude towards the using of various various electronic devices in the field of higher education.

Analysis of Choices of Electronic Devices

Table 32: Mobile Choices of Mobile to the Students of Higher Education

	Frequency	Percent	Valid Percent	Cumulative Percent
First Choice	116	77.3	77.3	77.3
Second Choice	18	12.0	12.0	89.3
Third Choice	6	4.0	4.0	93.3
Fourth Choice	10	6.7	6.7	100.0
Total	150	100.0	100.0	

Table 33: Tablet Choices of Tablet to the Students of Higher Education.

	Frequency	Percent	Valid Percent	Cumulative Percent
First Choice	4	2.7	2.7	2.7
Second Choice	35	23.3	23.3	26.0
Third Choice	93	62.0	62.0	88.0
Fourth Choice	18	12.0	12.0	100.0
Total	150	100.0	100.0	

Table 34: Smartphone Choces of Smartphone to the Students of Higher Education.

	Frequency	Percent	Valid Percent	Cumulative Percent
First Choice	21	14.0	14.0	14.0
Second Choice	91	60.7	60.7	74.7
Third Choice	26	17.3	17.3	92.0
Fourth Choice	12	8.0	8.0	100.0
Total	150	100.0	100.0	

Table 35: I-Pad Choices Of I-Pad To The Students Of Higher Education.

	Frequency	Percent	Valid Percent	Cumulative Percent
First Choice	9	6.0	6.0	6.0
Second Choice	6	4.0	4.0	10.0
Third Choice	25	16.7	16.7	26.7
Fourth Choice	110	73.3	73.3	100.0
Total	150	100.0	100.0	

Discussion

Using of electronic devices by the students in the field of higher education, is a modern trend. There are various electronic devices and students choose them on the basis of flexibility and availability. The using of these devices makes the teaching learning process an easy going one. It makes the students more advanced. They help the students to communicate with each other and the application, used in the devices help the students to acquire knowledge easily.

This study shows that there is no significant difference between the attitude of the students towards the using of various electronic devices with respect to gender, but the study of Qudah. *et al.* (2013) [15] showed an significant differences in students' attitudes toward mobile phone use in University education attributed to gender. It is happened because of the demographic differences between these two places. The female students of the Vidyasagar University and University of Calcutta are more active in their use of electronic devices than the female students of Hashemite University.

While to search and compare the present scenario of the attitude of the students towards the using of various electronic devices with respect to discipline, it has been found that there is no significant difference in their attitude. The same trend can be found in the study of Fahad (2009) [4] which indicated that offering mobile learning could be the method for improving retention of B.A and M.D students by enhancing their teaching/learning process. It is because the students need electronic devices to solve their educational related problems from whatever subjects they are belonged to. Both the disciplines- arts and

Science, have their own area of knowledge, have their own problems and to quench the thirst of knowledge, students use those electronic devices to make them more advanced. Also this indicates the usability and flexibility of the electronic devices and that's why students from different discipline can use those devices so easily.

The present study implies that the attitude of the students is equal in nature irrespective location and university that means there is no significant difference between rural and urban students as well as students of Vidyasagar University and University of Calcutta. The possible reason for this is that now-a-days students always want to keep themselves update with the help of these electronic devices. While the students of urban areas have a tendency to themselves update by using those electronic devices, the students of rural areas always try to make themselves competent to the students of urban areas. This indicates the availability of the electronic devices in urban and as well as in rural areas. Also the field of higher education is a much extended areas. Students need those electronic devices to be attached with the vast knowledge of outer world.

This study again shows that there is no significant differences among the students with respect to earning members and income of their families. That means the attitude of the students towards the using of electronic devices do not

change according to the income of their families and number of earning members. Students from all sectors, welcome the use of electronic devices in the field of higher education. This indicates that the cost of various electronic devices do not create any barrier in the using of these electronic devices by the students.

Conclusion

"By Education,I Mean The All Round Drawing Out Of The Best In Child And Man—Body,Mind And Soul"

----Gandhiji.

The aim of education is to bring out the best in a child. Technology helps education in this aspect. The using of these devices in the teaching-learning process, enhance the functions of education. It is the process of education----a part of education. It is the modern trend of education. Hence a part of educational technology. Education is all about learning and learning strategies. These devices helps in this area. According to Rousseau (1712-1778), teaching process must be directed to the learner's natural curiosity. The using of these devices creates a natural curiosity in the students, hence, helps them to learn accordingly.

Our senses are the gateways to acquiring knowledge. These receptive mechanisms vary in their functions as much as the individuals themselves. This is the reason for emphasizing sense training in Montessori Method. The using of these devices in the teaching-learning process makes the students capable of using their senses to acquire knowledge.

The findings of this present study shows that students have no differences in their attitude towards the using of various electronic devices with respect to gender, location, discipline, universities,

Earning members and income of the family. So, it is the duty of the teachers, educators to give the opportunity to the students so that they can use the devices most effectively in their study and to create every possible way to enhance the teaching-learning process by using these electronic devices.

Limitations of the Study

The present study had some limitations, which were as follows;-

- For reviewing the attitude of the students towards the using of various devices, the books and journals were consulted as far as possible in respect to its availability.
- The universities were selected mainly from two areas.
- The number of the students might be increased by taking more universities under the study.
- The sample of this study was selected only from the Govt. institutions. It would be better if the sample could be selected from private institutions also.
- The scale can be more standardised.
- The data collection through Electronic Device Using Attitude Scale was seif reported by the students at one point of time. Triangulations were not done to estimate the consistency of teachers'self-reported data.

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