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Effect of Internet Use on Study Habits and Adjustment of Higher Secondary Students

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ABSTRACT

In the present study an attempt has been made to know effect of internet use on study habits and adjustment of higher secondary students. The sample consisted 480 (240 boys and 240 girls) studying in various secondary schools of Agra city in India were selected by using purposive sampling method. Self developed S.H.I.C.S. was used to know the study habits of higher secondary students. Through this tool study habits of students from eight areas are studied: Comprehension, Concentration, Task-Orientation and Sets, Interaction, Drilling, Writing, Supports and Recording and Adjustment Inventory for College Students by A. K. P. Sinha and R.P. Singh have been taken for data collection. For the analysis and interpretation of the data, descriptive and inferential modes of treatments were adopted. CR-test was applied for testing the significance of Hypotheses. The results revealed that the mean of study habits and adjustment scores of internet users and non-users differ significantly.

Keywords: *Effect of internet use on study habits and adjustment, study habits, adjustment.*

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INTRODUCTION

The advent of internet in this rat-race to quench the thirst of knowledge has become more aggressive. This has divided the world into two halves; computer literate and computer illiterate. People having no knowledge of computer and information technology are feeling incapable to keep pace with the society. The Internet and computer are providing many facilities at home and work place. For instance- e-banking, e-tickets, e-books, e-mails are the most general facilities of internet. One can share his experiences and thoughts with the entire world through blogs, Wikis and web-sites. Besides job hunting and hiring employees it is also possible through public portals like naukri.com, UPSC portal, monster.com, latest vacancy, sarkari naukri etc.(Edwards & Bruce, 2002)

It can further be seen that internet use not only affects physiological and psychological variables but also educational and study habits of students. Success of students in their education is very necessary for good health of our society and nation but success in study depends not only on ability and hard work but also on effective method of study and study habits. Nowadays, students have not keen interest in traditional styles of study. It shows that current study habits of adolescents are much revolutionized by internet. Since adolescents are the future of our bright civilization, it has therefore become necessary to find out the effect of internet on the study habits of higher secondary students.

The use of internet among adolescents in India has led to a vast change in their life styles and study habits. It is a general observation that the use of internet can lead to improve student's performance in thinking logically, formation of concepts, problem solving procedure and understanding relationships (Temple and Gavillet, 1990). For example- Computer programming allows students to improve those skills by participating in classroom exercises that closely stimulate real world experiences. Such instructional stimulations are particularly useful in situations where first hand experiences are not available and are not appropriate.

On the other hand, some researchers and media correspondents and policy analysts argue that use of internet suppresses the capacity of brains to develop imagination (Davis, 1989). Students are happy to be alone. They do not make notes any longer. They believe in cut-paste technology. They make no reference to library materials. This shows that use of internet leads to serious consequences because it adversely affect the study habits of children (Wang et al.2003).

OPERATIONAL DEFINITIONS

Study Habits

In this study, study habits are defined on the basis of habits of concentration, task-orientation, comprehension, sets, interaction, drilling, supports, recording, and language.

Adjustment

According to Gates and Jersild (1970), **"**Adjustment is a continuous process by which a person varies his behavior to produce a more harmonious relationship between himself and environment."

Objectives

1. To investigate and compare the study habits of higher secondary students using and not using internet.
2. To investigate and compare the adjustment of higher secondary students using and not using internet.

Hypotheses

1. There is no significant difference between the study habits of higher secondary students using and not-using internet.
2. There is no significant difference between the Adjustment of higher secondary students using and not-using internet.

Research Method

The study adopted a *descriptive survey method* to investigate academic achievement of higher secondary students using and not-using internet

Sample

In the study, 240 boys and 240 girls studying in various secondary schools of Agra city were selected by using purposive sampling method.

Tools

i. Self developed "STUDY HABITS INVENTORY FOR COLLEGE STUDENTS (S.H.I.C.S.)". S.H.I.C.S. was developed to know the study habits of higher secondary students. Through this tools study habits of students from eight areas can be studied: Comprehension, Concentration, Task-Orientation and Sets, Interaction, Drilling, Writing, Supports and Recording.
ii. Adjustment Inventory for College Students by A. K. P. Sinha and R.P. Singh.

ANALYSIS OF THE DATA

The quantitative collected data were analyzed by using statistical techniques like Mean, Standard deviation and CR were used for analysis of the data and their interpretation.

STUDY OF STUDY HABITS SCORES OF INTERNET USERS AND NON-USERS

Study of Study Habits Scores of Internet Users and Non-Users In Relation To Different Dimensions of Study Habits

To know much more about the study habits of internet users and non-users, researcher has analyzed the data in different dimensions of study habits separately, whose statistical measures are shown below:

Table 1 : Statistical Value of Different Dimensions of Study Habits of Internet Users, Non-Users and Total Students

Group	Internet Users			Internet Non-Users			Total		
	Mean	S.D.	Level	Mean	S.D.	Level	Mean	S.D.	Level
Comprehension	19.41	4.46	Good	16.45	4.94	Poor	17.93	4.93	Average
Concentration	14.37	3.95	Average	13.39	4.28	Average	13.88	4.14	Average
Task-Orientation and Sets	18.29	4.40	Average	16.37	5.27	Poor	17.33	4.94	Average
Interaction	15.30	3.92	Average	13.78	3.99	Average	14.54	4.02	Average
Drilling	15.41	3.59	Average	14.12	4.32	Average	14.76	4.02	Average
Writing	14.97	3.54	Average	14.08	3.55	Average	14.52	3.57	Average
Supports	19.03	4.37	Good	15.60	4.46	Poor	17.31	4.73	Average
Recording	5.03	1.66	Average	5.18	1.80	Average	5.11	1.73	Average
Total	121.80	21.20	Average	108.97	23.53	Average	115.38	23.27	Average

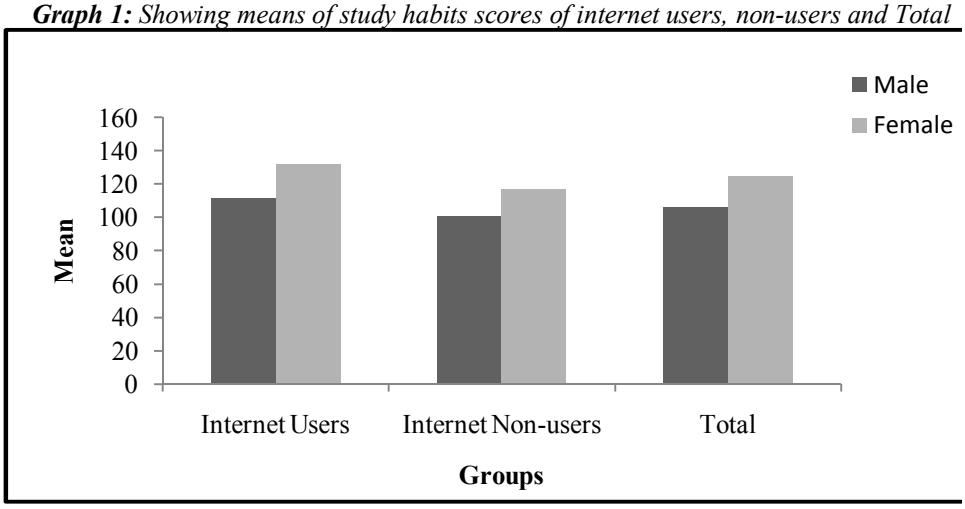
Above table shows that internet users are good in comprehension and supports dimension whereas average in concentration, Task-orientation and sets, interaction, drilling, writing and recording dimension. And internet non-users have average level of concentration, interaction, drilling, writing

and recording while they are poor in comprehension, Task-orientation and supports dimensions. It means that they have to improve in their approach to comprehend learning material.
An observation of above table 1 reflects that mean of total sample is 115.38 which is moderate in nature. Students also get average scores in all dimensions which are comprehension, concentration, task-orientation and sets, drilling writing, supports and recording.
Study of Study Habits Scores of Internet Users And Non-Users According To Sex
For this purpose the researcher has calculated the mean, S.D. and CR of study habits scores of internet users and non-users, which are represented in the following table:

Table 2 : Sex wise statistical values of study habits scores of internet users, non-users and Total

	Group	N	Mean	S.D.	CR	Significance level
Internet users	Male	120	111.52	17.17	8.57	0.01
	Female	120	132.08	19.86		
Internet non-users	Male	120	100.83	22.80	5.69	0.01
	Female	120	117.10	21.41		
Total	Male	240	106.18	20.84	9.44	0.01
	Female	240	124.59	21.93		

Graph 1: *Showing means of study habits scores of internet users, non-users and Total*

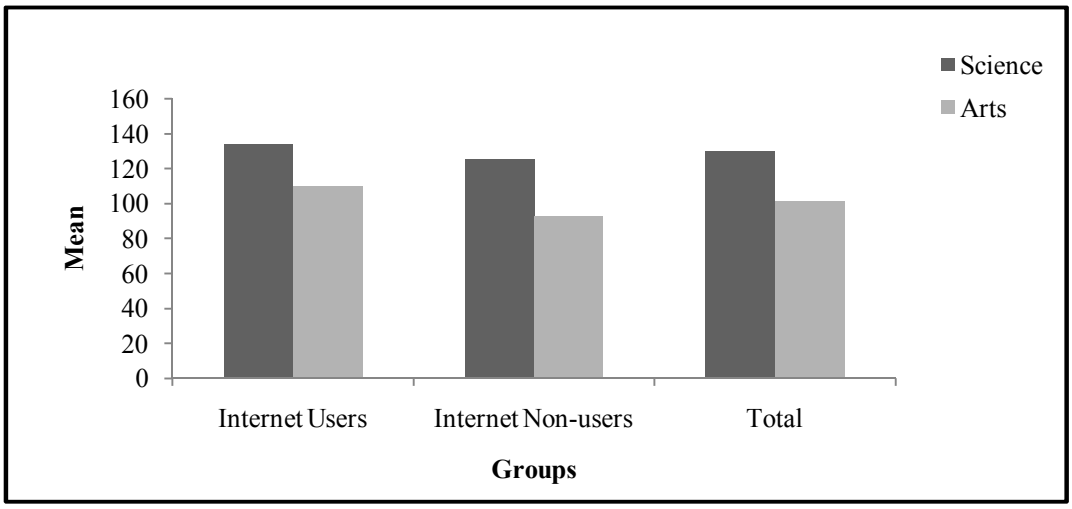


The mean values shown in above table indicate that female students have better study habits than male students and this difference is significant at .01 level. Thus null hypothesis i.e. "*There is no significant difference among the study habits of male and female higher secondary students who are using internet*", is rejected. And the null hypothesis *"There is no significant difference between the study habits scores of non-users male and female higher secondary students"* is rejected.
The mean values shown in above table indicate that female students have high study habits scores than male students and this difference is significant at .01 level. Thus null hypothesis i.e. "*There is no significant sex difference among the study habits of higher secondary students"* is rejected.
Study of Study Habits of Internet Users and Non-Users According To Stream
To study the study habits of science and arts students using and non-using internet, the mean, S.D. and CR have been computed and shown in table 3:

Table 3: Statistical Value of Study Habits of Internet Users and Non-users Stream Wise

Group	Stream	N	Mean	S.D.	CR	Significance level
Internet users	Science	120	134.02	17.29	10.91	0.01
	Arts	120	109.58	17.39		
Internet Non-users	Science	120	125.23	16.59	14.79	0.01
	Arts	120	92.70	17.41		
Total	Science	240	129.63	17.47	16.96	0.01
	Arts	240	101.14	19.32		

Graph 2: *Showing mean of study habits scores of Internet users and Non-users stream wise*



The ı ɔits while arts students are average in their study habits and they have much scope of developing their study habits, and the value of CR confirms the view that science students are better than arts students because calculated CR value is higher than table CR value at .01 level. Thus the null hypothesis-"*There is no significant difference between the study habits of science and arts students using internet*" has been rejected at .01 level of significance. And the null hypothesis of internet non-users "*There is no difference in study habits of both the stream's students who are not using internet*" has been rejected at .01 level of significance.

The mean values shown in table 3 indicates that science students are better than the students of arts in study habits and significant value of CR at .01 level also confirms the same view that science students have better study habits because they get more opportunities to explore their ideas in various areas and logical training than that of arts. Thus the null hypothesis that "*There is no significant difference among the study habits of science and arts students*" has been rejected.

Comparison of Study Habits Scores of Users and Non-Users of Internet In Relation To Different Dimensions of Study Habits

For this purpose the mean and S.D. have been computed dimension wise and total for all those students who are using internet and not using internet, as given in the table 4.

Table 4 : Dimension wise and separately Mean, S.D. and CR of study habits scores of Internet users and non-users

Group	Internet Users N = 240		Internet Non-Users N = 240		CR	Significance Level
	Mean	S.D.	Mean	S.D.		
Comprehension	19.41	4.46	16.45	4.94	6.88	.01
Concentration	14.37	3.95	13.39	4.28	2.58	.05
Task-Orientation and Sets	18.29	4.40	16.37	5.27	4.34	.01
Interaction	15.30	3.92	13.78	3.99	4.22	.01
Drilling	15.41	3.59	14.12	4.32	3.58	.01
Writing	14.97	3.54	14.08	3.55	2.78	.01
Supports	19.03	4.37	15.60	4.46	8.58	.01
Recording	5.03	1.66	5.18	1.80	1.00	Significance
Total	121.80	21.20	108.97	23.53	6.29	.01

Above table shows that there is difference in the mean of the different dimensions of study habits of internet users and non-users and this difference is statistically significant as the obtained CR is very high than the required value at .01 level of significance excepting concentration and reading aspect. In concentration dimension, there is significant difference at 0.05 level of significance between users and non-users while in reading dimension, there is no significant difference between users and non-users. So with 95% of confidence it can be said that Internet user students are superior in comprehension, concentration, task-orientation and sets, interaction, drilling, writing and support dimensions of study habits than of internet not using students. Only in recording dimension, users and non-users of internet have no significant difference.

The mean values for total (all the dimensions) of study habits scores of internet users and non-users show that internet users have higher mean than that of non-users. The table also confirms this statistically as CR is significant at .01 level of significance. It indicates that the mean of study habits scores of internet users and non-users differ significantly. Thus, the above table proves that the students who are using internet have better study habits than the students who are not-using internet. Then the null hypothesis that "*There is no significant effect of use and not use of internet on the study habits of higher secondary student*" is rejected.

STUDY OF ADJUSTMENT SCORES OF INTERNET USERS AND NON-USERS

Study of Adjustment Scores of Internet Users and Non-Users In Relation To Different Dimensions of Adjustment

To know much more about the adjustment of internet users, researcher analyzed the data in different dimensions of adjustment separately, the statistical measures are shown in the table 5.

Table 5 : Statistical values of different dimensions of adjustment scores of internet users and Non-users

Group / Dim.	Internet Users			Internet Non-users			Total		
	Mean	S.D.	Level	Mean	S.D.	Level	Mean	S.D.	Level
Home	4.31	1.98	Avg.	3.14	1.85	Good	3.72	2.00	Avg.
Health	4.29	1.81	Avg.	3.24	1.82	Avg.	3.76	1.89	Avg.
Social	7.85	3.08	Avg.	5.47	2.52	Good	6.67	3.05	Avg.
Emotional	15.21	4.56	Unsf.	11.84	4.46	Avg.	13.53	4.81	Avg.
Educational	8.32	3.16	Avg.	6.40	3.00	Avg.	7.36	3.22	Avg.
Total	**39.98**	**9.88**	**Avg.**	**30.08**	**10.38**	**Avg.**	**35.03**	**11.27**	**Avg.**

Though Emotion adjustment is an important aspect of adjustment and it indicate the stable and unstable behaviour of a person yet table 5 indicates that the group of internet users has unsatisfactory level in this dimension but in other dimension (home, health, social and educational) their scores shows average adjustment. Non users of internet have average level of adjustment in Health, Emotional and Educational dimensions. It indicates that they are average in emotional stability and educational activities while they have good level in Home and Social dimensions of adjustment i.e. their score in home and social adjustment dimensions indicate satisfactory adjustment towards their home condition and social surroundings. Mean of total sample is 35.03 which is average in nature. Students get average scores in all dimensions which are home, health, social, emotional, educational which indicates the average adjustment in all dimensions.

2.2 Study of Adjustment Scores of Internet Users and Non-Users According To Sex

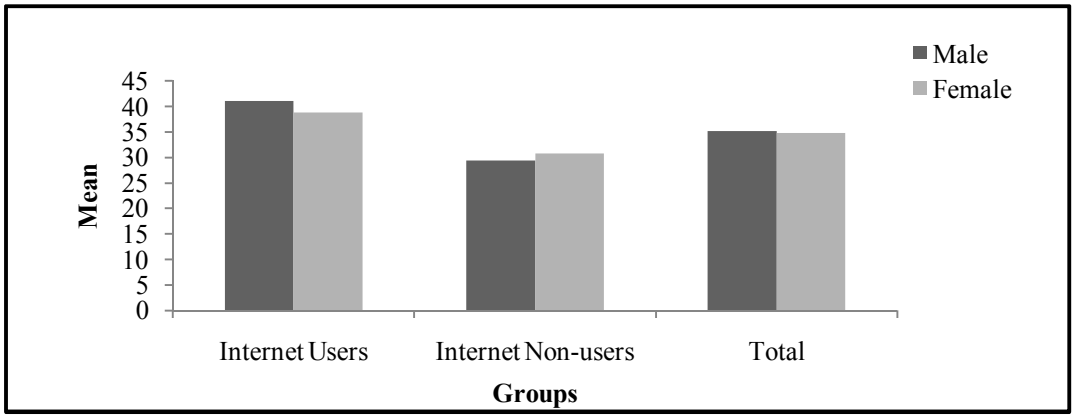
For this purpose the researcher has calculated the mean, S.D. and CR of adjustment scores of internet users, which are represented in the table 6:

Table *6 :* Sex wise statistical values of Adjustment scores of internet users and Non-users

	Group	N	Mean	S.D.	CR	Significance level
Internet Users	Male	120	41.08	9.06	1.73	Insignificant
	Female	120	38.88	10.56		
Internet Non-Users	Male	120	29.42	9.46	0.99	Insignificant
	Female	120	30.74	11.22		
Total	Male	240	35.25	10.93	0.43	Insignificant
	Female	240	34.81	11.61		

The mean values shown in table 6 indicate that internet user female students have slightly better adjustment score than male students and this difference is insignificant at .05 level. Thus null hypothesis i.e. "*There is no sex difference among the adjustment of higher secondary students who are using internet*", is accepted at 0.05 level of significance.

Graph 3: *Showing means of adjustment scores of internet users, non-users and Total*



For internet non-users the obtained CR value 0.99 is lower than the table CR at .05 level of significance, thus it can be said that though female students have better adjustment than male as shown by the mean value yet difference is insignificant statistically. Thus null hypothesis *"There is no significant difference between the adjustment scores of non-users male and female higher secondary students"* is accepted.

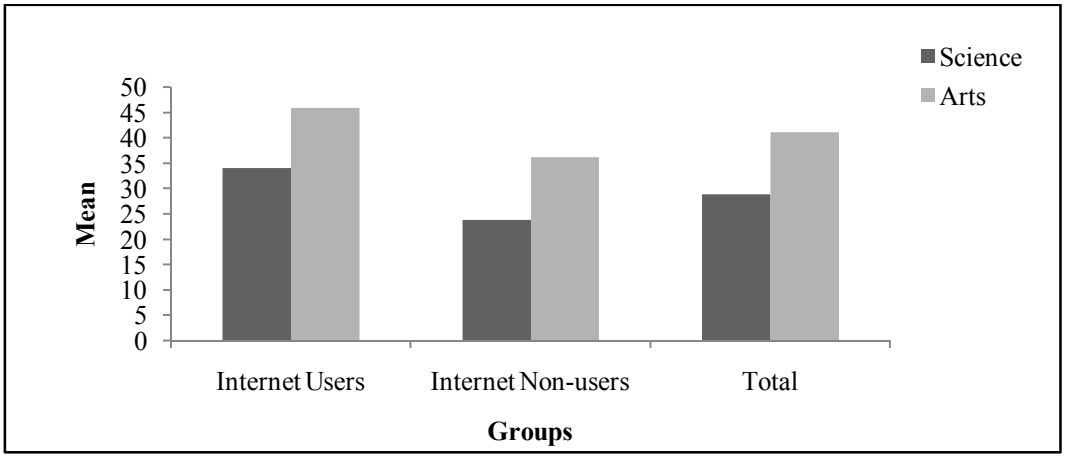
For Total (Internet users & non-users) the mean values shown in table 8 indicate that male and female students have a slight difference between the means of adjustment scores and this difference is insignificant at .05 level. Thus null hypothesis i.e. "*There is no significant sex difference among the adjustment of higher secondary students"* is accepted.

Study of Adjustment of Internet Users and Non-Users According To Stream

To study the adjustment of science and arts students using internet, the mean, S.D. and CR have been computed and are shown in table 7:

Table 7 : Statistical values of Adjustment of internet users stream wise

	Group	N	Mean	S.D.	CR	Significance level
Internet Users	Science	120	34.03	6.23	11.66	0.01
	Arts	120	45.92	9.28		
Internet Non-users	Science	120	23.86	6.56	11.63	0.01
	Arts	120	36.30	9.75		
Total	Science	240	28.95	8.17	13.98	0.01
	Arts	240	41.11	10.65		



Above table shows that the mean values of internet users students of science stream are average in their adjustment while students of arts stream are unsatisfactory in their adjustment and they have to develop better adjustment and value of CR confirms the view that science students are better than arts students because calculated CR value is higher than table CR value at .01 level of significance. Thus the null hypothesis-"*There is no significant difference between the adjustment of science and arts students using internet*" has been rejected at .01 level of significance.

Table 7 indicates that significant value of CR confirms the view that internet non-users students of science group have better adjustment than students of arts groups as calculated CR is higher than required CR at .01 level of significance. Thus the null hypothesis framed in this relation that "*There is no significant difference in adjustment of both the stream's students who are not using internet*", has been rejected at .01 level of significance.

Total sample mean values shown in table 7 indicates that science students are better than the students of arts in adjustment and significant value of CR at .01 level also confirms the same view that science students have better adjustment because they have scientific attitude towards their environment and logical thinking than that of arts. Thus the null hypothesis that "*There is no significant difference among the adjustment of science and arts students*" has been rejected.

Comparison of Adjustment Scores of Internet Users and Non-Users in Relation to Different Dimensions of Adjustment

For this purpose the mean and S.D. have been computed of all those students who are using internet and not using internet separately, as given in the following table:

Table 8 : Dimension Wise and Separately Mean, S.D. And CR of Adjustment Scores of Internet Users and Non-Users

Group	Statistics	Users N=240	Non-Users N=240	Cr	Significance Level
Home	Mean	4.31	3.14	6.88	0.01
	SD	1.98	1.85		
Health	Mean	4.29	3.24	6.18	0.01
	SD	1.81	1.82		
Social	Mean	7.85	5.47	9.15	0.01
	SD	3.08	2.52		
Emotional	Mean	15.21	11.84	8.22	0.01
	SD	4.56	4.46		
Educational	Mean	8.32	6.40	6.86	0.01
	SD	3.16	3.00		
Total	Mean	39.98	30.08	10.65	0.01
	SD	9.88	10.38		

The values, in the table, show that there is difference in the mean of adjustment scores of internet users and non-users. The table confirms this statistically that CR is significant at .01 level of significance. It indicates that the mean of adjustment scores of internet users and non-users differ significantly. Thus the above table proves that the students who are not using internet have better adjustment than the students who are using internet.

The table values also show that there is difference in the mean of the different dimensions of adjustment of internet users and non-users. This difference is statistically significant as the obtained CR is very high than the required value at .01 level of confidence. So with 99% of confidence it can be said that Internet non-user students are superior in all the dimensions of adjustment than that of internet using students. Thus the null hypothesis that "*There is no significant effect of use and not use of internet on the adjustment of higher secondary student"* is rejected.

CONCLUSION

Analysis done in this paper leads to conclusion that internet users and non-users showing difference in study habits & adjustment and they do not have significant difference. Interaction effect of sex, stream of education and internet use/non-use on study habits & adjustment were found insignificant i.e. these variables have no combined effect on study habits and adjustment respectively of higher secondary students.

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