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A STUDY OF ACADEMIC ACHIEVEMENT OF B ED STUDENTS IN RELATION TO THEIR STUDY HABITS

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Abstract

Study habit implies a sort of more or less permanent method of studying. The study habit of the individual cover mainly the reading habits, the motivation to learn, memory, time schedule, physical conditions, note taking skills, the style of preparation for the examination, examination writing skill, the use of examination results and the health of the students. (Palsane and Sharma,1989). Study habits play an important role in human performance in academic field (Verma, 1996; Verma & Kumar, 1999; Satapathy & Singhal, 2000; Vyas,2002). Ramamurti (1993) has rightly emphasized that despite possessing good intelligence and personality, the absence of good study habits hampers academic achievement. Studies have shown that training in study habits increases academic achievement. High achievers will have good study habits and consequently good academic achievement (Garrison,1 980; Cuff, 1980; Mokinney,1980; Wagner,1987; Modougle,1999). The author feels that the B Ed students, the prospective teachers should be aware of good study habits and should internalize them as they are to guide the students to develop right study habits. Therefore, the study habit was studied as a correlate of academic achievement of B Ed students. The participants of the study were 1037 students were drawn proportionately from 14 B Ed colleges. The findings reveals that the academic Achievement of B Ed students is influenced by certain dimensions of their study habits such as test-taking skills, note taking skills, analytical thinking and problem solving, vocabulary skills. The results show the need to focus on developing proper study habits among all students in general and student-teachers in particular

to enable them to excel academically.

Keywords: Study Habit, Academic Achievement, student teachers

1. Introduction

The term *study habit* implies a sort of more or less permanent method of studying. According to Good's dictionary of education, "Study habit is the tendency of pupil to study when the opportunities are given, the pupil's way of studying whether systematic or unsystematic, efficient or inefficient." The study habit of the individual cover mainly the reading habits, the motivation to learn, memory, time schedule, physical conditions, note taking skills, the style of preparation for the examination, examination writing skill, the use of examination results and the health of the students. (Palsane and Sharma, 1989)

Study habits are defined as those techniques, such as summarizing, note taking, outlining or locating material which learners employ to assist themselves in the efficient learning of the material at hand. A proper study regime enables an individual to reap a good harvest in future. The present society is a competitive society, where the principle of struggle for existence and survival for fittest exists.

Study Habits and Academic Achievement

Research on the correlation between study habit and students' academic achievement has for long received attention from scholars and educational agencies. For instance, the national Assessment of Educational Progress (NAEP) in 1994 conducted a study to find out the relationship between study habits and academic performance of the students. Findings of the study revealed a positive correlation between study habit and academic achievement. Similarly, Onwuegbuzie (2001) conducted a series of studies to find out the relationship between academic success and study habit and reported positive relationship between the two variables.

Some of the researchers have already tried to find out the relationship between study habits and attitude with achievement. Verma, Saroj and Raj (1999) concluded that the achievement was significantly and positively related to the study habits of the students. Good study habits help the students in critical reflection in skills outcomes such as selecting, analyzing, critiquing and synthesizing (Fielden 2004).

Study habits seem to be improving because of the advent and wide use of the internet, hypertext and multimedia resources which greatly affects the study habits (Liu 2005).

Secondary school students were found to be underachievers academically due to poor study habits (Stella and Purushothman, 1993). The students studying in private schools were found to have better study habits than the students studying in government schools (Naggappa & Venkataiah, 1995; Sanjeev, 2003). Secondary school students need intensive guidance about good study habits to get maximum scores in the higher secondary level examination to get admission in the appropriate course for their further education.

Studies have shown that training in study habits increases academic achievement. High achievers will have good study habits and consequently good academic achievement (Garrison,1980; Cuff, 1980; Mokinney,1980; Wagner,1987; Modougle,1999); parental and school involvement leads to higher academic achievement (Halloway,1980; Bolgiani, 1984; Nancy,2001; Dapna,2002). A positive relationship has been found between good study habits and academic performance of 8th and 9th Grade students (Creemers and Reynold, 2000).

The researcher feels that the B Ed students, the prospective teachers should be aware of good study habits and should internalize them as they are to guide the students to develop right study habits. Therefore, the study habit was studied as a correlate of academic achievement of B Ed students.

2. Need and Significance of the Study

It is teachers' responsibility to develop study habits and study skills among secondary school students. That is very necessary for the focused attempts for higher academic achievement. But as we see the B.Ed. course itself is so hectic and most of the students being elderly persons on the verge of getting married or are married and with children, are not able to develop any study habit; every students craves for 'notes' that can be learnt and reproduced in the examination. How can these teachers be expected to guide the teenagers about the study habits and study skills? Nevertheless it is important for teachers to know about the study habits. This made

the researcher very keen to know if the prospective teachers are aware of the study habits and are following them and therefore decided to take it as variable for the study.

Academic achievement is an indicator of the achievements of objectives and in B.Ed. The academic achievement is a combination of the theory and practicum marks secured by the student in both the semester. If the teacher education, evaluation system is to be a clear indicator of the assessment of the competencies developed in a teacher, then the academic achievement should assess creativity, life skills, ICT skills, oratory skills, leadership skills, etc.

But we see that in general there are only theory and practicum and the theory which has almost has 50% of the marks contributing to the academic achievement. Creativity, life skills, ICT skills, oratory skills, leadership skills, etc. do not have weightage in terms of 'marks' contributing to academic achievement.

The study will highlight the correlation between the student-teachers' academic achievement and their study habits. The study will motivate the teacher educators to follow relevant teaching methodologies which will inculcate proper study habits. The study will focus the attention of all stakeholders on the need to develop proper study habits among all students in general and student-teachers in particular to enable them to excel academically.

3. OPERATIONAL DEFINITIONS OF KEY TERMS

Academic Achievement: It is defined as the final total score of students-teachers in B.Ed. course (both the semesters put together). It encompasses marks secured by the B.Ed students in theory (10 papers) as well as practicum(internal assessment marks of all the practicum activities such as micro teaching, practice teaching, internship, book review, computer assisted presentations and research based project as well as marks on content test, assignments and tests.)

Study Habits: Study habits refer to the activities carried out by B Ed students during the B.Ed program which included test taking skills, textbook study, time management, nutritional aspects of the study, note-taking skills, concentration and memory, analytical thinking and problem solving and vocabulary skills. In the study,

the study habits of B. Ed students are indicated by their score on each of the above dimensions on the Study Habits Inventory by *Ferris (2001).*

Student-teachers: Those individuals with a Bachelor's / Master's degree in the field of Arts, Commerce or Science and get instructed in B Ed program of University of Mumbai in the art and science of teaching and learning for one academic year leading to a Bachelor's degree in Education (B.Ed.) which qualifies them to become secondary and higher secondary school teachers.

4. Objectives of the Study

1. To ascertain the relationship of Academic Achievement of B.Ed. students with the following dimensions of their Study Habits:

a) Total Study Habits
b) Test-taking Skills
c) Text-book Study
d) Time Management
e) Nutritional Aspects of the Study
f) Note taking Skills
g) Concentration and Memory
h) Analytical thinking and Problem solving.
i) Vocabulary Skills

2. To compare B.Ed. students' Study Habits and its dimensions on the basis of type of institutions: Aided and Unaided;
3. To compare B.Ed. students' Study Habits and dimensions on the basis of their subjects of specialization(Arts, Science and Commerce);
4. To compare B.Ed. students' Study Habits and its dimensions on the basis of gender.

5. Research Questions

In pursuit of the descriptive analysis of the criterion variables, the following research questions were raised:

RQ_1. What is the level of Academic Achievement of B Ed students on the basis of their gender, type of institution and subject of specialization?

RQ_2. To what extent do the study habits of B Ed students differ on the basis of their gender, type of institution and subject of specialization**?**

6. Hypotheses

$H_0$1. There is no significant relationship of Academic Achievement of B.Ed. students with the following dimensions of their Study Habits:

a) Total Study Habits.
b) Test-taking skills
c) Text-book study
d) Time Management
e) Nutritional Aspects of the study
f) Note taking skills
g) Concentration and memory
h) Analytical thinking and problem solving.
i) Vocabulary Skills

$H_0$2. There is no significant difference in the Study Habits (***and its dimensions***) of B.Ed. students studying in aided and unaided institutions**.**

$H_0$3. To compare B.Ed. students' Study Habits and its dimensions on the basis of their subjects of specialization (Arts, Science and Commerce);

$H_0$4. To compare B.Ed. students' Study Habits and its dimensions on the basis of gender: Male and Female.

7. Scope of the study

1 The study was conducted within the geographical region of Greater Mumbai.

2 The study involved only those B. Ed colleges in Greater Mumbai that are affiliated to the Mumbai University in the region of Greater Mumbai.

3 The study focused on student-teachers' Academic Achievement in relation to their Study Habits.

4 The study employed the quantitative paradigm of research design.

8. Delimitations of the Study

1. The study was delimited to

- only English medium B Ed students;

- teacher education institutions located in Greater Mumbai;

2. The tools for data collection are delimited to inventories which expect written responses from the students.

9. Research Design

The present study is a descriptive survey involving correlational and causal comparative methods. The correlational part of the study sought to determine whether, and to what degree, a statistical relationship exists between academic achievement and Study Habits of B Ed students. The causal comparative part attempted to compare the Study Habits of B Ed students on the basis of their gender, type of institution and subject of specialization.

10. Population of the Study

In the present study, the population comprised of student-teachers enrolled in various aided and unaided B.Ed. colleges situated in Greater Mumbai and affiliated to the University of Mumbai.

11. Sample of the Study

The sample selected for the present study consists of 1037 student-teachers, both male and female from B.Ed. colleges situated in Greater Mumbai.

In the present study, the researcher made use of ***stratified random sampling technique*** to select the sample for the study. For the purpose of the present study, a two-stage sampling technique was used as follows:

At the first stage of sampling, the B Ed colleges were stratified on the basis of their location in Mumbai Metropolis as follows:

- ❖ South Mumbai (from Colaba to Dadar) and South East Mumbai (from Chembur, Govandi, Mankhurd and Trombay)
- ❖ North Mumbai (from Dadar to Dahisar)
- ❖ Central Mumbai (from Chatrapathi Shivaji Terminus (CST) to Ulhasnagar)

At the second stage of sampling, the aided and unaided colleges were selected from these locations using stratified random sampling technique. In all, fourteen B Ed colleges were selected of which 7 were aided and seven unaided. All the B Ed students studying in these colleges were selected to be the participants of the study.

12. Tools for Data Collection

12.1 Personal Data Sheet

The researcher prepared the Personal Data Sheet which gave information on the Personal details of the students such as their name, name of the college, gender, type of the college (Aided / Unaided), Subject of specialisation (Art/ Commerce/ Science), qualification, and percentage of graduation, Total marks in Semester I, category (Open/Reserved) and place of residence (Urban/Rural).

12.2 Study Habit Inventory

Study Habit Inventory is standardized tool prepared by Ferris (2001).The internal consistency reliability of the tool is 0.90. Study Habit scale contains sixty items and consists of 8 dimensions. Table 1 shows the distribution of items in the Inventory.

Table 1

Distribution of Items in the Inventory

Dimension	No. of items
Test-taking Skills	10
Textbook Study	10
Time Management	7
Nutritional Aspects of the Study	5
Note taking Skills	10
Concentration and Memory	9
Analytical Thinking and Problem Solving	8
Vocabulary Skills	5

Scoring of the Scale: The scoring was done using four-point rating scale. All the items of the scale were positively worded. The scoring was done as follows:

Response Category	Never	Sometimes	Usually	Always
Score Value	1	2	3	4

The minimum possible score on the tool was 60 and the maximum possible score was 240. The total Score was also calculated which indicated the overall B Ed student-teachers' Study Habits.

The academic achievement scores of participants: The final total score of students-teachers in B.Ed. course (both the semesters put together) in theory (10 papers) as well as practicum (internal assessment marks of all the practicum activities such as micro teaching, practice teaching, internship, book review, computer assisted presentations and research based project as well as marks on content test, assignments and tests) was collected from the respective B Ed colleges.

13. The answering of the research questions

Answering RQ 1: ***What is the level of Academic Achievement of B Ed students on the basis of their gender, type of institution and subject of specialization?***

Table 2

Descriptive Analysis of Academic Achievement Scores on the basis of Gender, Type of Institutions and Subjects of Specialization

	N	Mean	Median	Mode	SD	Percent Mean
Male	108	542.16	550.00	565.00	89.42	54.22
Female	929	554.15	558.00	550.00	83.81	55.42
Aided	506	548.09	544.50	447.00	87.07	54.81
Unaided	531	557.49	562.00	550.00	81.69	55.75
Arts	434	547.39	549.5	550.00	82.16	54.95
Commerce	270	551.04	559.50	600.00	85.11	55.10
Science	333	561.61	570.00	680.00	86.38	56.16

From the table 1, it could be observed that:

- Academic Achievement scores of female student-teachers (55.42%) is more than that of male (54.22%) student-teachers;
- Academic Achievement scores of student-teachers studying in unaided institutions (55.75%) is more than that of the aided institutions (54.81%).
- Academic Achievement scores of student-teachers with Science as the subject of specialization (56.16%) is more than that of those with Arts (54.95%) and Commerce (55.10%) as subjects of specialization.

Answering RQ 2: ***To what extent do the Study Habits of B Ed students differ on the basis of their gender, type of institution and subject of specialization?***

Table 2

Descriptive Analysis of Total Study Habit Scores on the basis of Gender, Types of institution and Subjects of specialization

		N	Mean	Median	Mode	SD	Percent Mean
Total Study Habits Scores	Male	108	162.51	158.00	144.00	23.68	56.95
	Female	929	164.85	162.00	152.00	21.32	58.25
	Aided	506	158.85	154.00	153.00	20.57	54.91
	Unaided	531	170.10	170.00	177.00	21.10	61.16
	Arts	434	162.48	159.00	152.00	21.67	56.93
	Commerce	270	166.92	166.00	174.00	21.67	59.4
	Science	333	165.51	164.00	165.00	21.20	58.61

Table 2 reveals that:

- Total Study Habit Scores of female student-teachers (58.25%) is more than that of male (56.95%) student-teachers;
- Total Study Habit Scores of student-teachers studying in unaided institutions (61.16%) is more than that of the students in aided institutions (54.91%).

➢ Total Study Habit Scores of student-teachers with Commerce as the subject of specialization (59.4%) is more than that of those with Science (58.61%) and Arts (56.93%) as subjects of specialization.

14. Verification of the Hypotheses

Verification of the Hypothesis $H_0$1

The hypothesis $H_0$1 reads: There is no significant relationship of Academic Achievement of B.Ed. students with the following dimensions of their Study Habits:

a) Total Study Habits
b) Test-taking skills
c) Text-book study
d) Time Management
e) Nutritional Aspects of the study
f) Note taking skills
g) Concentration and memory
h) Analytical thinking and problem solving.
i) Vocabulary Skills

The technique used to test this hypothesis is Pearson's co-efficient of co-relation (r). The table 3 shows the relevant statistics.

TABLE 3

Significance of the Correlation of Academic Achievement Scores and Study Habits Scores of the Participants

Sr. No	Variables	N	df*	r	LOS**	Variance $100r^2$
1	AAS and TSHS	1037	1035	0.060	NS	-
2	AAS and TTSS	1037	1035	0.070	S	0.49%
3	AAS and TSS	1037	1035	0.002	NS	-

4	AAS and TMS	1037	1035	-0.005	NS	-
5	AAS and NASS	1037	1035	0.028	NS	-
6	AAS and NTSS	1037	1035	0.088	S	0.77%
7	AAS and CMS	1037	1035	0.007	NS	-
8	AAS and ATPSS	1037	1035	0.071	S	0.50%
9	AAS and VSS	1037	1035	0.088	S	0.77%

df: degrees of freedom; LOS**-Level of Significance; S=Significant; NS: Not Significant.*

Academic Achievement and Study habit and its dimensions

From the Table, it could be observed that the obtained value of ***r*** for Test Taking skills and Analytical Thinking and problem Solving is more than the table value at 0.05 level (0.062). The obtained value of ***r*** for Note Taking and Vocabulary Skills is more than the table value at 0.01 level (0.081). Therefore, the null hypothesis is rejected.

Interpretation: There is a negligible and significant relationship between Academic Achievement and Test Taking skills, Analytical Thinking and problem Solving, Note Taking and Vocabulary Skills among the participants.0.49%, 0.77%, 0.50% and 0.77% of the variance in Academic Achievement of student-teachers is associated with Test Taking skills, Note Taking Skills, Analytical Thinking and problem Solving and Vocabulary Skills resp.

However no significant relationship was found between Academic Achievement and Total study Habits, Textbook Study, Time Management, Nutritional Aspects of the Study and Concentration and Memory.

Finding: There is significant relationship of Academic Achievement of B.Ed. students with the following dimensions of their Study Habits:

- Test-taking skills
- Note taking skills
- Analytical thinking and problem solving.
- Vocabulary Skills

There is no significant relationship of Academic Achievement of B.Ed. students with the following dimensions of their Study Habits:

- Total Study Habits
- Text-book study
- Time Management
- Nutritional Aspects of the study
- Concentration and memory

Discussion:

B Ed students in general are females (95% and more) most of whom are married with responsibilities of either kids or in laws. Further the one year B Ed program is considered to nine months with many hectic activities like Micro Teaching, Bridge Lessons, Lesson Planning Workshops, Simulated Teaching, Practice Teaching, Internship, Essays, Class tests etc. in addition to theory classes. Six days a week are full working days and city like Mumbai commuting takes more than hour. In such a situation not much time is left to develop proper study habits. However we observe that some students are very good in written English; they will be good even at writing well in assignments and Essays and even at note taking in the instructional sessions since theory and written examination dominates the B Ed program it is not surprising to see that there is significant relationship of Test-taking skills, Note taking skills, Analytical thinking and problem solving and Vocabulary Skills. But regarding textbook study, Time Management, Nutritional Aspects of the study and Concentration and memory due to time paucity students does not seem to devote much time for their skills. Hence we see no significant relationship of these aspects

with Academic Achievement of B Ed students.

The findings of the present study were in consensus with the studies by Singh (1990) and Mashayekhi.F (2014) that witnessed the relationship between the academic achievement and study habits of secondary school students.

Verification of the Hypothesis $H_0$2

The hypothesis $H_0$2 reads: There is no significant difference in the Study Habits (***and its dimensions***) of B.Ed. students studying in aided and unaided institutions**.**

The technique used to test this hypothesis is 't' test. The table 4 shows the relevant statistics.

TABLE 4

Significance of the Difference between the means of Study Habits Scores of the Participants on the basis of Type of Institutions

Sr No	Variable	Group	N	df*	Mean	SD	t ratio	Table Value		LOS**	100ω²
								0.05	0.01		
1	Total Study Habits Scores	Aided	506	1035	158.85	20.57	**8.69**	1.96	2.58	S	7%
		Unaided	531		170.10	21.10					
2	Test Taking Skills Scores	Aided	506	1035	2.70	0.47	**7.99**	1.96	2.58	S	6%
		Unaided	531		2.93	0.46					
3	Text book Study Scores	Aided	506	1035	2.63	0.45	**5.08**	1.96	2.58	S	2%
		Unaided	531		2.78	0.47					
4	Time Management Scores	Aided	506	1035	2.59	0.49	**3.03**	1.96	2.58	S	1%
		Unaided	531		2.68	0.50					
5	al Aspects of the study	Aided	506	1035	2.62	0.55	**2.03**	1.96	2.58	S (at 0.05 level)	0%
		Unaided	531		2.68	0.55					
6	Note taking skills Scores	Aided	506	1035	2.66	0.47	**8.17**	1.96	2.58	S	6%
		Unaided	531		2.89	0.44					

7	Concentration and memory Scores	Aided	506	1035	2.60	0.44	**2.81**	1.96	2.58	S	1%
		Unaided	531		2.68	0.43					
8	Analytical thinking and	Aided	506	1035	2.64	0.49	**8.91**	1.96	2.58	S	7%
		Unaided	531		2.90	0.46					
9	Vocabulary Skill Scores	Aided	506	1035	2.74	0.58	**8.70**	1.96	2.58	S	7%
		Unaided	531		3.04	0.54					

df: degrees of freedom; LOS**-Level of Significance; S=Significant*

Interpretation: From the table 4, it could be observed that there is a significant difference at 0.01 level in Study Habits of B Ed students on the basis of type of institutions in which they are studying w.r.t. all dimensions of the skill whereas in *Nutritional Aspects of the Study Scores* the significance was at 0.05 level. Looking at the mean scores of participants in the various dimensions of Study Habit Scores, it could be observed that the scores of the participants studying in unaided institutions is higher than that of their aided counterparts. ω^2_{est} reveals that the variance of Study Habit scores associated with type of institution ranges from 7% in Analytical thinking and problem solving Scores and Vocabulary Skill Scores , 6 % in Test Taking Skills Scores and Note taking skills Scores , 1% in Time Management Scores and Concentration and memory Scores and 0% in Nutritional Aspects of the study Scores.

Finding: There is significant difference in the Study Habits (and its dimensions) of B.Ed. students studying in aided and unaided institutions.

Discussion: In aided colleges generally the work is taken casually and the students decide to study on their own and teachers are not very particular because after all they are not so accountable for the performance of the students where as in self-financed institution the reputation of the institution matters a lot in order to get the students in consecutive years, therefore they will be very particular and they will be after the students to make them study and take the test and then do all the activities rigorously. May be this is because of which there is significant difference in the

students studying in aided and unaided institution.

The study contradicts the finding of Chand (2013) which revealed that secondary school students studying in government schools are significantly better on home environment and planning of work and planning of subjects than students studying in private schools but private school students are significantly better than government school students on preparation for exam component of study habit. No significant difference existed between government and private secondary school students on reading and note taking, concentration, habit and interest, school environment component of study habit and total study habit.

Verification of the Hypothesis $H_0$3

The hypothesis $H_0$3 *reads:* There is no significant difference in the Study Habits (and its dimensions) of B.Ed. students of Arts, Science and Commerce subjects of specialization

The technique used to test this hypothesis was 'one-way ANOVA'.

The table 5 shows the relevant statistics.

TABLE 5

Analysis of Variance of Study Habits Scores of the Participants on the basis of their Subjects of Specialization

Sr No	Variable	Sources of variance	df*	SS	MSS	F	Table Value		LOS **	$100\omega^2$
							0.05	0.01		
1	Total Study Habits Scores	Among means	2	3677.50	1838.75	3.97	2.99	4.6	S (0.05 level)	0.57 %
		Within group	1034	478857.75	463.11					
		Total	1036	482535.26						
2	Test Taking Skills Scores	Among means	2	1.796494346	0.898247	3.91	2.99	4.6	S (0.05 level)	0.56 %
		Within groups	1034	237.0491	0.229254					
		Total	1036	238.8456						

3	Text book Study Scores	Among means	2	0.736659	0.36833	1.70	2.99	4.6	NS	-
		Within groups	1034	223.2817	0.21594					
		Total	1036	224.0184						
4	Time Management Scores	Among means	2	0.452454	0.226227	0.91	19.5	99.5	NS	-
		Within groups	1034	255.8862	0.247472					
		Total	1036	256.3386						
5	Nutritional Aspects of the study Scores	Among means	2	0.99002	0.49501	1.62	2.99	4.6	NS	-
		Within groups	1034	314.1616	0.303831					
		Total	1036	315.1516						
6	Note taking skills Scores	Among means	2	2.140166	1.070083	4.90	2.99	4.6	S	0.69 %
		Within groups	1034	225.6129	0.218194					
		Total	1036	227.7531						
7	Concentration and memory Scores	Among means	2	0.723374	0.361687	1.90	2.99	4.6	NS	-
		Within groups	1034	196.2609	0.189807					
		Total	1036	196.9843						
8	Analytical thinking and problem solving Scores	Among means	2	1.255632	0.627816	2.61	2.99	4.6	NS	-
		Within groups	1034	248.2641	0.240101					
		Total	1036	249.5197						
9	Vocabulary Skill Scores	Among means	2	1.222241	0.61112	1.82	2.99	4.6	NS	-
		Within groups	1034	346.4695	0.335077					
		Total	1036	347.6917						

df: degrees of freedom; LOS**-Level of Significance; S=Significant; NS: Not Significant.*

Interpretation: From the table, it could be observed that the calculated F for Text book Study Scores, Time Management Scores, Nutritional Aspects of the study

Scores, Concentration and memory Scores, Analytical thinking and problem solving Scores and Vocabulary Skill Scores among participants with subjects of specializations as Arts, Science and Commerce is less than the table value at 0.05 level. Therefore, the null hypothesis is accepted.

Further, it could be observed that the calculated F for Test Taking Skills Scores and Note taking Skills Scores among participants with subjects of specializations as Arts, Science and Commerce is more than the table value at 0.05 level (2.99). Therefore, the null hypothesis is rejected.

ω^2_{est} reveals that 0.57% of Total Study Habits Scores, 0.56% Test Taking Skills Scores and 0.69% Note taking skills Scores of student-teachers are associated with their Subjects of Specialization.

Finding: There is significant difference in the Study Habits (and its dimensions) of B.Ed. students of Arts, Science and Commerce subjects of specialization.

a) Test-taking skills

b) Note taking skills

There is no significant difference in the Study Habits (and its dimensions) of B.Ed. students of Arts, Science and Commerce subjects of specialization.

a) Total Study Habits

b) Text-book study

c) Time Management

d) Nutritional Aspects of the study

e) Concentration and memory

f) Analytical thinking and problem solving.

g) Vocabulary Skills

Discussion: In Science and commerce subjects which are little doable subjects in which the students are supposed to solve problems and then apply certain rules to certain situations and science, physics, chemistry and also in commerce being as accounting subject, people are supposed to come out with certain manuals and journals and other things because of which their writing habits and note taking skills

definitely differ from Arts students who do not have these practicum and other activities and may be because of this significant difference.

The study contradicts the finding of Premalakshmi (2012) which revealed significant difference in study habits among students belonging to rural/urban, aided/government schools and 11th /12th whereas the difference is not found on the basis of gender and medium of instruction.

Test of Difference by Use of t

Since the F-ratio does not indicate which pair of means differ significantly, the t-test has been used to determine which pair of means are significantly different.

Table 6 shows the relevant statistics.

TABLE 6

Significance of the Difference between the Means of Study Habits Scores of the Participants with Arts, Commerce or Science as Subjects of Specialization

Sr No	Variable	Group	N	df*	Mean	SD	t-ratio	LOS**	$100\omega^2$
1	Total Study Habits Scores	Arts	434	702	162.48	21.67	2.64	**S**	0.84%
		Commerce	270		166.92	21.67			
		Commerce	270	601	166.92	21.67	0.80	**NS**	-
		Science	333		165.51	21.20			
		Arts	434	765	162.48	21.67	1.94	**NS**	-
		Science	333		165.51	21.20			
2	Test Taking Skills Scores	Arts	434	702	2.77	0.49	2.39	**S (0.05 level)**	0.66%
		Commerce	270		2.86	0.48			
		Commerce	270	601	2.86	0.48	0.77	**NS**	-
		Science	333		2.83	0.47			
		Arts	434	765	2.77	0.49	1.71	**NS**	-
		Science	333		2.83	0.47			
3	Note	Arts	434	702	2.72	0.48	2.75	**S**	0.92%

	taking skills Scores	Commerce	270		2.82	0.45			
		Commerce	270	601	2.82	0.45	0.27	**NS**	-
		Science	333		2.81	0.46			
		Arts	434	765	2.72	0.48	2.62	**S**	0.76%
		Science	333		2.81	0.46			

df: degrees of freedom; LOS**-Level of Significance; S=Significant; NS: Not Significant.*

Interpretation: From the table 6, it could be observed that

- There is no significant difference in the total study habits scores of Science and Arts B Ed students and Commerce and Science B Ed students, but there is significant difference (at 0.01level)in the study habits of Arts and Commerce students.
- There is no significant difference in the test taking skills scores of Science and Arts B Ed students and Commerce and Science B Ed students, but there is significant difference (at 0.05level)in the test taking skills scores of Arts and Commerce students.
- There is no significant difference in the note taking skills scores of Science and Arts B Ed students and Commerce and Science B Ed students, but there is significant difference (at 0.05level)in the test taking skills scores of Arts and Commerce students.

Verification of the Hypothesis $H_0$4

The hypothesis $H_0$4 *reads:* There is no significant difference in the Study Habits (and its dimensions) of male and female B Ed students.

The technique used to test this hypothesis is‘t’ test.

The table 7 shows the relevant statistics.

TABLE 7

Significance of the Difference in the Study Habits Scores of the Participants on the basis of their Gender

Sr No	Variable	Group	N	df*	Mean	SD	t ratio	Table Value		LOS **	$100\omega^2$
								0.05	0.01		
1	Total Study Habits Scores	Female	929	1035	164.85	21.32	**1.07**	1.96	2.58	NS	-
		Male	108		162.51	23.68					
2	Test Taking Skills Scores	Female	929	1035	2.82	0.48	**0.27**	1.96	2.58	NS	-
		Male	108		2.80	0.50					
3	Text book Study Scores	Female	929	1035	2.71	0.47	**0.25**	1.96	2.58	NS	-
		Male	108		2.70	0.46					
4	Time Management	Female	929	1035	2.64	0.49	**0.87**	1.96	2.58	NS	-
		Male	108		2.59	0.52					
5	Nutritional Aspects of the study Scores	Female	929	1035	2.66	0.30	**1.16**	1.96	2.58	NS	-
		Male	108		2.59	0.36					
6	Note taking skills Scores	Female	929	1035	2.78	0.47	**1.78**	1.96	2.58	NS	-
		Male	108		2.70	0.48					
7	Concentration and memory Scores	Female	929	1035	2.64	0.43	**0.08**	1.96	2.58	NS	-
		Male	108		2.64	0.48					
8	Analytical thinking and problem	Female	929	1035	2.78	0.48	**0.57**	1.96	2.58	NS	-
		Male	108		2.75	0.54					
9	Vocabulary Skill Scores	Female	929	1035	2.91	0.57	**1.99**	1.96	2.58	S (0.05 level)	0.28 %
		Male	108		2.79	0.66					

df: degrees of freedom; LOS**-Level of Significance; S=Significant; NS: Not Significant.*

Interpretation: From the table 7 it could be observed that the calculated t value among participants on the basis of gender is less than the table value at 0.05 level (1.96) in all the dimensions except Vocabulary Skill scores at 0.05 level. Therefore, the null hypothesis is accepted for all the dimensions except in Vocabulary Skill scores among participants. ω^2_{est} reveals that 0.28 % variance of Vocabulary skills scores is associated with gender of student-teachers.

Finding: There is significant difference in Vocabulary Skill of B.Ed. students' Study Habits on the basis of their gender.

There is no significant difference in B.Ed. students' Study Habits and its following dimensions on the basis of their gender:

a) Total Study Habits.
b) Test-taking skills
c) Text-book study
d) Time Management
e) Nutritional Aspects of the study
f) Note taking skills
g) Concentration and memory
h) Analytical thinking and problem solving.

Discussion: This is may be because girls are very good at language and mostly females tend to have a better vocabulary than boys because boys have more of kinaesthetic aptitude and girls have more of linguistics aptitude and may be that why more girls come to teaching profession also and may be that is why there is a significant difference in the vocabulary skills of B.Ed. students and while boys are out most of their students life doing certain things and going around the world and girls generally sit and read some books and may be because of this girls are good in vocabulary skills.

The result contradicts the findings of Shejwal (1998) which revealed that there were sex differences in different aspect of study habits: about 91.0% girls lacked the habit of preparing the topic in advance whereas about 81% boys lacked in his habit. The habit of note taking was absent in 50% to 80% students.

15. Conclusions of the study

1. The academic Achievement of B Ed students is influenced by certain dimensions of their study habits such as test-taking skills, note taking skills, analytical thinking and problem solving, vocabulary skills;
2. The Academic Achievement of B Ed students is not influenced by certain dimensions of study habits such as total study habits, text-book study, time management, nutritional aspects of the study, concentration and memory.

16. Suggestions for Enhancing Study Habits of Student-Teachers

Reading

- Read all the headings and subheadings in the book. Try to absorb.
- Read the Preface. It often contains hints on why the book was written, what the author thinks is important for you to know and how the information is organized to get you from point A to point B.
- Read the Table of Contents. Reading this imparts what is required to pass the final test for this course. Look at the Table in some detail. Every line in here is important. Are there words, phrases, concepts you do not know the meaning of? Make a note of them. They are the ones you need to concentrate your subsequent study efforts on. And you thought the content table was there just to find something in a hurry?
- Browse through the Index in the back. Again, look at words you do not know and make a mental note of them. It would not hurt to write down at least a few of them, those that stand out as exciting.
- Carefully read the first and last paragraphs in a chapter or sub-chapter. They contain most of the information in a somewhat condensed form.
- Go back and carefully read the first and last sentences in each paragraph. Every good speaker first tells the audience what will be covered in the speech, then the speech follows with further explanations given, side-lines added, etc. Thereafter the speech content is summarized. A good textbook writer at least attempts to follow these same rules as well. See if it holds true overall for your textbook. Not every

paragraph may be laid out that way, but the long ones should be.

- Never begin the detailed reading of a textbook without having in mind a set of questions that you want answered. You want to become an active researcher instead of a passive browser. Browsers waste time and energy, learn almost as if by accident. Researchers get something accomplished. You want to be a researcher. When reading sit upright at a table, never lie down; it puts you to sleep. Count on it.
- Read entire assignment carefully. Look up words you do not know in the dictionary. Write them down; read them aloud several times for retention. When you come across an important concept also write it down, then read those lines aloud several times. Ask yourself: What does this mean? Why is this important? To who? When? Under what circumstances?

Concentration

- To concentrate properly on a subject matter and keep paying attention is vital to the learning process. It certainly takes will power and persistence.
- Sometimes, however, it is difficult to concentrate. In those cases it is beneficial to study only in short bursts. Don't waste a whole day or evening to accomplish little.
- Try 10 minutes at first, concentrating as hard as you can, then gradually build up to 45 minute sessions. Do not day-dream. If you catch yourself day-dreaming STOP it immediately. Take a break of 5 to 10 minutes. Stand up, walk around, think of something else but then get right back to the job at hand. It is not going to go away and you might as well tackle it now; bite the bullet, so to speak.

Study Breaks

- Every 15 to 20 minutes schedule a Study Break (not a relaxation break) to recall what you have studied and to check through it once more. Vocalize important parts.
- It provides a feedback as you literally hear (in addition to seeing) the words. It also forces you to organize the material in a way that is natural for memory improvement.
- If you made question notes, look at them now and see if any questions were

answered by this time and how. If not, the material may be covered later. Do not worry about it at this time. But in the end all questions must be answered before going on.

Ending a study session

Do not stop a study session at a tough spot in the subject matter. It becomes discouraging and you are less eager to return to it. Your aim should be to pause at a point of interest. That way you'll be glad to get back.

Recall

Recalling a fact, is what studying is about. Remember, though, that knowing something also means being able to predict a previously unknown outcome from a collection of other, sometimes non related facts. But for our purpose, remembering and recalling the subject matter and concepts in the textbook will tell your teacher how much you have learned in class.

As much as you may dislike it, recall is best accomplished by REPETITION. Drumming a fact into your head repeatedly is still the best and fastest way to remember something. As far as we know, remembering is a process in the brain which sprouts dendrites like branches on a tree to grow connections between synapses. To physically grow a connection takes time and is facilitated by repetition. The learning process proceeds in a 'stairway' fashion. At first there is a long plateau with little learning taking place. Then, suddenly, progress is made in numerous little steps. This is followed by another plateau and further little progress steps thereafter.

Repetition

- Scientists observed that fine filament-like structures grow between brain synapses to make physical connections. This takes time, energy and REPETITION to keep those filaments growing.
- Without reinforcement through repetition the connections may be too few, may never be completed or will eventually break apart again (forgetting). But — before

you make it a marathon session of Olympic proportions and don't stagger it over several days, consider that moderation is also called for.

Examination day

- Some people (perhaps yourself?) take an examination two or three times. Once on the ride to school, once during the exam proper, and once on the ride back home. Unfortunately you get credit for only one of these.
- Make an effort to avoid 'previewing' on the way over and especially avoid talking about your prospects with other students. You can only get depressed and dispirited by recalling the topics you should have paid more attention to but for some reason have not. Keep to yourself and remain confident that you have done everything possible. It is much too late now to worry about anything except getting to the test on time. You know that you have prepared and prepared well, that should be enough.
- Spend at least the first three to five minutes reading through the exam paper to get a feel for it. First look at the instructions. What, exactly, is required of you? Even if you think you know what is coming, sometimes an instructor changes the format just enough to cause the unwary to fall off the edge. This was not done to you on purpose, mind you, the instructor assumes that you read all the instructions carefully first and act accordingly.

Efficient Note taking skills

- Effective note-taking begins with effective listening. Effective listening in the classroom is just as important as reading the textbook. Many Instructors present material in class that is not covered in the book. Also, most Instructors emphasize in class the important concepts that will appear on tests.
- Effective listening begins before the class begins. An effective listener has the necessary books and materials before the first class. Effective listeners read outside assignments and complete homework before each class.

- Efficient note takers are prepared to hear and write down the main ideas of a lecture. They recognize the main ideas because they have been covered in the reading or because they are emphasized by the instructor.
- Even the best note-takers occasionally have moments when they miss explanations or misunderstand concepts. Their notes may be incomplete or confusing. The first suggestion is to review your notes within 24 hours or lose 80% of the content. Another solution would be to meet immediately after class with a group of other students to compare notes and fill in missing parts.

References

- **Anwar (2013).** A Correlational study of Academic Achievement and Study Habits: Issues and Concerns. Excellence International Journal of Education and Research (Multi- subject journal) , Vol. -1 Issue 2:46-51
- **Chaudhari (2013).** Study Habits of Higher Secondary School Students in relation to their Academic Achievement. : International Journal of Research in Humanities and Social Sciences. Vol. 1, Issue:3 52-54
- **Deb, M., & Grewal, H. P. (1990).** Relationship between Study habits and Academic achievement of Under-Graduate Home Science Final Year Students. Indian Educational Review, 25 (3), 71-74.
- **Fielden, K.** (2004). Evaluating Critical Reflection for Postgraduate Students in computing. Informing Science and Information Technology Education Joint Conference, 2005, Flagstaff, Arizona.www.informingscience.org/ proceedings/ InSITE2005/I38f36Field.pdf
- **Khurshid, D. F., Tanveer, A., & Qasmi, F. N. (2012).** Relationship between Study Habits and Academic Achievement among Hostel Living and Day Scholars' University Students. British Journal of Humanities and Social Sciences, 3(2), 34-42. Retrieved from http://www.ajournal.co.uk/HSpdfs/HSvolume3%282%29/HSVol,3%20%282%29%20Article%204.pdf

- **Kumar and Sohi (2013).** Study Habits of Tenth Grade Students in Relation to Their Academic Achievements. Indian Journal of Research. Volume : 2,| Issue : 12. 58-60
- **Liu, Z.** (2005). Reading Behaviour in the digital environment: changes in Reading behaviour over the past 10 years. Journal of Documentation, Vol. 61, No. 6, pp 700-12
- **Mashayekhi, F., Rafati, S., Mashayekhi, M., Rafati, F., Mohamadisardoo, M.R. and Yahaghi, E. (2014).** The relationship between the Study Habits and the Academic Achievement of Students in Islamic Azad University of Jiroft Branch. International Journal of Current Research and Academic Review, 2(6), pp. 182-187.
- **Naggappa P.S. and Venkataiah, N.** (1995). Study Habits of Secondary School Students in Mysore City. Experiments in Education, 9, 143-152.
- **Onwuegbuzie, A. J.; Slate, J.R. and Schwartz, R.A.** (2001). "Role of Study Skills in Graduate Level Educational Research Courses." The Journal of Educational Research. 94(4), 238-246
- **Palsane, M.N. and Sharma Sadhna** (1989). Study Habit Inventory, Agra: National Psychological Corporation.
- **Premalakshmi, K.(2012).** Study habits and academic achievement of higher secondary students. Scholarly Res. J. Interdisciplinary Studies, 1(3): 551-565.
- **Ramamurti, P.V.** (1993). Developing good Study Skills. Keynote address delivered at the DIET orientation course in Experimental Psychology held at Karvetnagar on 17th July 1993.
- **Varma, M. (2003).** A study of the type of child rearing practices experienced, personality and academic achievement of advantaged and disadvantaged students. 54, 23-26. Indian Educational Abstracts. 9-10
- **Verma, B.P.** (1996). Study Habits, Locus of Control and Academic Performance. Indian Journal of psychometry and Education, 27(1), 1-6.

- **Verma, S. and R. Kumar** (1999) A Correlation Study between Study Habits and Achievement in different School Courses. Indian Journal of Psychometry and Education,30 (1), 53-56.
- **Vyas, A.** (2002). A Study of Learning Style, Mental Ability, Academic Performance and other Ecological Correlates of Undergraduate Adolescent girls of Rajasthan. Ph.D. Thesis in Education, Meerut: Ch. Charan Singh University