

Gender Differences in Study Habits among Pre-Service Teachers in Manipur

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Abstract - This study investigated gender differences in study habits among pre-service teachers (N = 120) using independent samples t-tests and Cohen's *d* effect sizes. Results revealed statistically significant differences ($p \leq 0.05$) favouring males in Comprehension ($t = 3.36, p = 0.001$), Concentration ($t = 2.36, p = 0.019$), Study Sets ($t = 2.64, p = 0.009$), and Total Score ($t = 2.30, p = 0.012$). However, effect sizes were small (Cohen's *d* range: 0.21–0.31), indicating minimal practical significance. No significant differences were found in Task Orientation, Interaction, Drilling, Supports, Recording, or Language ($p > 0.05$). The findings suggest that while males outperformed females in specific areas, the magnitude of these differences is educationally trivial. The study highlights the importance of reporting effect sizes alongside p-values to avoid over interpreting statistically significant but practically negligible results. Recommendations include implementing universal study skills programs and addressing variability in male students' resource usage rather than adopting gender-specific interventions.

Key-words: study habits, gender differences, pre-service teacher, t-tests, Cohen's d, and practical significance.

I. INTRODUCTION

Study habits refer to the consistent patterns of behaviour that students adopt to facilitate learning and academic performance. These habits encompass various techniques, strategies, and routines that students employ to absorb, retain, and apply knowledge effectively. The concept of study habits is rooted in educational psychology, emphasizing the role of self-regulation, motivation, and cognitive strategies in successful learning (Crede & Kuncel, 2008).

Study habits can include time management, active reading, note-taking, self-testing, and minimizing distractions (Gettinger & Seibert, 2002). Effective study habits are often linked to higher academic achievement, as they enhance comprehension, memory retention, and critical thinking skills (Nonis & Hudson, 2010). Conversely, poor study

habits—such as cramming, procrastination, or passive reading—can hinder learning outcomes.

Research suggests that study habits are influenced by individual differences, learning environments, and metacognitive awareness (Zimmerman, 2002). Students who develop adaptive study strategies tend to perform better academically because they engage in deeper processing of information rather than superficial memorization (Dunlosky et al., 2013).

In the present study, an attempt has been made to find out the gender differences in study habits for each nine areas of the study habits, such as comprehension concentration, task orientation, study sets, interaction, drilling, supports, recording and language. By examining these areas, the study aims to identify areas of strength and weakness, providing valuable insights for teacher education programme labor-and policymakers. Ultimately, fostering

formation of strong study habits among pre-service teachers in Manipur can contribute to improve educational outcomes and a more equitable learning environment for pre-service teacher.

II. SIGNIFICANCE OF THE STUDY

It is evident from many prior studies that the study habit is an important aspect of learning because pre-service teachers' academic achievement depends greatly on their study habits. They cannot be expected to learn and know everything needed about any subject matter from their teachers in classroom only, it is the combination of the classroom and out of classroom learning that make up students study habits. The good study habits play a pivotal role in the academic performance of pre-service teachers. The study was perhaps the first of its kind in the state of Manipur context, as evident from the review of literature. The findings emerging from this study could be, more or less, generalized to the Pre-Service teacher population who studied (or being studied) in the similar institutional environment to that of the present ones in terms of, independent manipulation and organismic variable. It was expected that the results of the current study may also be one of the eye-openers to the pre-service teacher in particular and senior teachers, educational authorities, parents and other stakeholders in general in taking up the necessary remedial measures in time. All these things become highly imperative because of the invaluable value of good (positive) study habits. It was in this direction that we need to move.

III. REVIEW OF RELATED LITERATURE

Study Habits and Gender Difference

Adamu Koki and Abdullahi (2014), studied gender differences in study habit skills of undergraduate students of Yobe State University, Damaturu, Yobe State, Nigeria. The results indicated that male students had a better study habits than female students with male mean 58.45, SD= 24.14 and female mean 47.48, SD= 20.21.

Bhan and Gupta (2010) studied study habits and academic achievement and reported that sex had no significant impact on the study habits and academic achievement between students belonging to the scheduled caste and non-scheduled caste students.

Rajakumar and Soundarajan (2012) found no significant difference in study habits between male and female students of higher Secondary Schools in Tirunelveli district, India. Similarly, Upadhyay (2017) also found no significant difference in study habits between male and female students studying in higher secondary schools.

Khan (2016) studied on correlation between sex and study habits, the study found no significant impact of sex on the study habits.

Radha and Muthukumar (2015) conducted a study among 300 college students college students in Tamil Nadu India, they found no significant difference in study habits between male and female students, with males: $N= 130$, $M= 127.23$, $SD= 17.32$, and females: $N= 130$, $M= 126.72$, $SD= 20.96$, at >0.05 level of significance.

Illahi and khanda (2015) investigated on the difference in study habits between 193 male and 217 female college students in pulwama district J&K, India, and they found that although female students had significantly higher academic achievement than male students, but no significant difference in study habits between them was found.

Nadaf (2018) conducted a study among 243 University Students in Kashmir, India, it was found that male students had better study habits ($N=114$, $M=160.97$, $SD=27.05$) than female students ($N=129$, $M=154.34$, $SD=23.46$), with t -value = 2.04, at $p. < 0.05$ level of Significance.

Kaur and Singh (2020) conducted a study to explore the difference in study habits between 120 (60 males and 60 females) students studying in class IX and X in different schools of Ludhiana, India. The results indicated that the study habits of female students were found better ($M= 100.80$, $SD=18.48$), $df. 118$, t -value -3.07, at $p.<0.05$ level of significance.

Rana (2020) studied the gender differences in the eight components of study habits of 200 higher secondary school students in a district of Jammu, India. The results indicated that Interaction — a dimension of study habits — was found higher among girl students with t -value 2.71, at <0.001 level of significant difference in the six dimensions, including the Over Study Habits, was found — Comprehension, Concentration, Task-Orientation, Drilling, Writing and Recording, at > 0.05 level of significance.

Pandey (2022) explored the differences in study habits between male and female students of senior secondary schools in a district in Himachal Pradesh, India, in relation to eight dimensions of Study Habits Inventory developed by Mukhopadhyay and Sansanwal. The results indicated that out of the eight components of study habits, there was a significant difference in study habits, in which Interaction component was found higher among female students ($N=100$, $M=18.64$, $SD=3.68$) than male students ($N=100$, $M=17.31$, $SD=3.26$), with t -value of 2.71, at <0.01 level of significance. On the other hand, male students had higher Support component ($N=100$, $M=21.70$, $SD=4.86$) than female students ($N=100$, $M=20.01$, $SD=4.62$), with t -value of 2.52, at <0.05 level of significance. However, other components -Comprehension, Concentration, Task-Orientation and Sets, Drilling, Writing and Recording, as well as the Overall Study Habits — had no significant difference between male and female students.

Singh and Gohain (2022) in a study conducted among higher secondary school students in a Dibrugarh district, Assam found no gender difference in study habits between boys and girls was found.

Ceballo et al. (2004) established in their study that student's gender strongly affects their academic performance with girls performing better in the subjects of Mathematics, and English as well as aggregate performance. These students showed that girls usually show more efforts than boys in their studies leading to better grades at school. However, in a study conducted by Ugoji (2008), no significant difference in the academic performance of students based on gender was noted.

Suneetha and Mayuri (2001), it was found that there was significant difference between boys and girls in drilling, interaction, sets and language dimensions of the study habits.

Singh (2011) examined academic achievement and study habits of higher secondary students. The results indicated that girls and boys differed significantly in their study habits and academic achievement.

Unwalla (2020) made comparative analysis of study habits between 160 male and female undergraduate students. The results indicated significant difference, in which female students showed more self-disciplined, tend to complete work on time and were more attentive compared to male students. From these results, the investigator concluded that there existed a significant difference in study habits of males and females and females tend to have better study habits compared to male students.

Ossai (2012) studied the gender differences among others, in study habits among 289 secondary school students in Nigeria. The sample consisted of 289 students with 151 males and 138 females. The results indicated that female students had better study habits ($M=62.74$, $SD=9.89$) than male students ($M=53.97$, $SD=7.90$) and the difference was significant at $p < 0.05$ level.

Hickman (2002), found female students study habits were almost double the number of hours as male students, but performance was not significantly different.

Aluja and Blanch (2004), studies also reported gender difference in study habits, but the findings on the difference between male and female were different from one study to another.

Mushoriwa (2009), gender was not found to be notable determinant of study habits skills.

Charles-Ogan (2015), studied gender influences on study habits of mathematics students' achievement among 220 senior secondary school students in Nigeria. The results indicated that there was no significant difference between the effect of study habits on boys and girls on their performance in mathematics. However, the boys studied

with a high concentration than the girls, indicating higher performance of boys in mathematics.

Alzahrani et al. (2018) examined study habits and academic achievement among medical students with a comparison between male and female students at Taif University in Saudi Arabia on a sample of 257 male and female students. The study found significant differences for time of study, study materials, study interruptions, study enjoyment, study methods, study breaks, student activity, among others, between male and female students with 59 per cent high GPA and 41 per cent low GPA respectively.

Sahni, Madhu (2012) examined the study habits of college students with respect to gender and academic stream among three hundred students reading in first year of undergraduate courses in the colleges in Rohtak, Haryana, India. The investigator measured study habits of students using the Study Habit Inventory (SHI) developed by

Mukhopadhyay and Sansanwal (2005). The study examined 8 (eight) dimensions of study habits, such as Comprehension, Concentration, Task Orientation, Interaction, Drilling, Supports, Recording, and Language. The results indicated that mean scores of girls were higher than that

Weil (2005) studied the effect of selected counseling and remedial techniques on the academic performance of American's female college students. The results indicated significant differences in the study habits between men and women with women were 35 per cent better than men.

Richardson (1993), found no significant difference in study habits between men and women was found. For example, there was no significant relationship between gender and study habits amongst university students.

IV. OBJECTIVE

The objective of the study is:

To find out the difference in each nine (9) areas of study habits based on gender i.e., male and female.

V. RESEARCH QUESTIONS

Based on the reviewed of different related literature and keeping in view the objective of the current study, following research question and hypothesis have been formulated for testing. The study seeks to answer the following research questions:

5.1 Are there significant gender differences in study habit among pre-service teacher in Manipur across the nine (9) areas i.e., comprehension, concentration, task orientation, study set, interaction, drilling, supports, recording, and language?

5.2 What are the effects sizes of any observed gender differences, what do they imply about the practical significance of these finding?

VI. HYPOTHESIS

The following hypothesis has been tested in the current study to examine the significance of study habit between males and females sampled groups.

H₀: There will be no significant differences in each nine (9) areas of study habits based on gender.

VII. METHODOLOGY

7.1. Population and Sample:

This study employed a quantitative research design to analyze data collected from 120 pre-service teachers (50 males and 70 females), selected through simple random sampling from two teacher education institutes having population of 400 pre-service teachers located in the valley areas of Manipur. The two institutions were Department of Teacher Education, Manipur University and Ibotombi Institute of Education, Canchipur Imphal Manipur, India.

7.2. Tool of Data collection:

The study habits of the sampled pre-service teachers was measure using the Study Habits Inventory (SHI) developed by Mukhopadhyay and Sansawal (2005). The inventory consists of 52 items pertaing to 9 (nine) sub-components, such as Comprehension (12 items), Concentration (10 items), Task Orientation (9 items), Study sets (7 items), Interaction (3 items), Drilling (4 items), Supports, Recording and Language (1 items).

Out of the 52 items, 34 items are positive (+) and 18 items negative (-). The inventory is a 5- point Likert type scale as Always, Frequently, Sometimes, Rarely and Never with a scale value of 4,3,2,1,0 for positive item response and the reverse 0,1,2,3,4 for negative. The maximum total score is 208 and minimum total score 0. Participants were given clear instructions on how to complete the survey, including explanations of the rating scale and the purpose of the study. The SHI was administered to participants in a group setting within the classroom environment and no time limit was given but asked them to complete it as soon as possible.

7.3. Collection of Data: After getting prior permission formally from the two heads of the institutions or authority, tool of the data collection (SHI) was administered on the sample.

7.4. Statistical Analysis

The present study used descriptive and inferential statistics. Certain descriptive statistics were computed in order to describe the nature of distribution of the scores. These were mean and standard deviation because mean as a measure of the central tendency of the distribution and to study the variation in the scores and to do other various computations. The independent t-test was

used to compare the means of two independent groups (e.g. males vs. female) on a continuous variable (e.g. study habits scores) and to examine whether there are statistically significant differences in study habits across the nine areas. Pearson’s coefficient of correlation (r) was used to study the relationship between the variables.

VIII. RESULTS AND DISCUSSION

Table 1: Descriptive Statistics

| Areas | Gender | N | Mean | Standard Deviation |
|------------------|--------|----|--------|--------------------|
| Comprehension | Male | 50 | 28.84 | 4.70 |
| | Female | 70 | 28.76 | 4.78 |
| Concentration | Male | 50 | 19.20 | 4.23 |
| | Female | 70 | 19.30 | 4.49 |
| Task Orientation | Male | 50 | 20.44 | 3.39 |
| | Female | 70 | 20.79 | 3.54 |
| Study sets | Male | 50 | 16.08 | 2.99 |
| | Female | 70 | 15.96 | 3.02 |
| Interaction | Male | 50 | 6.36 | 1.65 |
| | Female | 70 | 6.58 | 2.30 |
| Drilling | Male | 50 | 8.82 | 2.10 |
| | Female | 70 | 8.66 | 1.91 |
| Supports | Male | 50 | 9.48 | 10.74 |
| | Female | 70 | 8.10 | 2.21 |
| Recording | Male | 50 | 6.10 | 1.40 |
| | Female | 70 | 6.46 | 1.51 |
| Language | Male | 50 | 2.14 | 0.76 |
| | Female | 70 | 2.10 | 0.91 |
| Total | Male | 50 | 117.10 | 17.73 |
| | Female | 70 | 116.71 | 11.83 |

The above results showed the gender based differences in study habit. Descriptive Statistics indicated that Male (N= 50), Female (N= 70) which further observed there was slight male advantage in area of comprehension, concentration, study set, and total score. The female scored slightly higher in recording and interaction. The higher variability in supports among male (SD= 10.74).

Table 2: Gender differences in study habits among pre-service teachers.

| Areas | Gender | df | t-value | SEd | p-Value |
|------------------|--------|-----|---------|-------|---------|
| Comprehension | Male | 118 | 3.363 | 0.966 | 0.001 |
| | Female | | | | |
| Concentration | Male | 118 | 2.3638 | 0.842 | 0.0194 |
| | Female | | | | |
| Task Orientation | Male | 118 | 1.4047 | 0.726 | 0.1612 |
| | Female | | | | |
| Study sets | Male | 118 | 2.6388 | 0.610 | 0.0092 |
| | Female | | | | |
| Interaction | Male | 118 | 0.1637 | 0.366 | 0.8702 |
| | Female | | | | |
| Drilling | Male | 118 | 1.2704 | 0.480 | 0.2060 |
| | Female | | | | |

| | | | | | |
|-----------|--------|-----|--------|-------|--------|
| Supports | Male | 118 | 1.4618 | 0.452 | 0.1459 |
| | Female | | | | |
| Recording | Male | 118 | 0.2493 | 0.241 | 0.8014 |
| | Female | | | | |
| Language | Male | 118 | 0.5814 | 0.189 | 0.5619 |
| | Female | | | | |
| Total | Male | 118 | 2.2958 | 2.776 | 0.012 |
| | Female | | | | |

Significant at $p \leq 0.01$

The results revealed that a t-test analysis comparing male and female pre-service teachers' study habits across nine areas. It includes t-values, standard error of difference (SEd.), degrees of freedom (df), and p-values. It allows us to determine whether there are statically significant differences between genders in each study habits areas.

It is observed that:

- **Comprehension**

There were significant difference between males and females ($p= 0.001, t= 3.363$). Male pre-service teachers scored were observed higher than female pre-service teachers.

- **Concentration:**

There were statistically significant gender difference ($p= 0.019, t= 2.364$). It showed slight male advantage.

- **Study Set:**

There were significant difference ($p= 0.009, t= 2.639$). It showed male had better performance.

- **Total Score:**

Overall, there was a significant difference ($p= 0.012, t= 2.296$) favouring males.

- **Other Areas: Non-significant**

There was no significant gender differences were for task orientation, interaction, drilling, supports, recording, and language.

Effect Sizes: Cohen's d

- **Comprehension:**

$d= 0.31$, Indicating small to medium effect, favouring male pre-service teachers.

- **Concentration:**

$d= 0.22$, Indicating small effect, again favouring male pre-service teachers.

- **Study Set:**

$d= 0.24$, Indicating small effect, with male pre-service teachers.

- **Total Score:**

$d= 0.21$, Indicating small overall gender effect on total study habits.

IX. MAIN FINDINGS

- It was found statistically significant gender differences in three (3) out of nine (9) and total study habits score of study habit areas: Comprehension, concentration, study set, and total study habit score.
- In all these cases, male pre-service teacher performed slightly better than female counterparts.
- The magnitude of differences based on Cohen's d is small, suggesting limited practical significance.
- Females scored slightly higher in recording and interaction.
- High variability in supports among male ($SD= 10.74$)

X. CONCLUSION

From the above results it may be pleaded that the effect sized are small, suggesting minimal practical differences between male and female counterparts. The academic performance of the pre-service teachers would not be a good one. The need of the hour is: the elimination of bad habits and acquisition of good habits on the part of the pre-service teachers. In this context, the assertions put forward by the psychologists may be examined. On the basis of the conceptual framework of habits and study habits, the pre service teachers in particular and parents in general have a crucial role to play in the formation of good study habits and good of the pre-service teachers.

XI. SUGGESTIONS

For Education:

- Focus on improving language and interaction skills through structured practice.
- Use individual assessments rather than gender-based assumptions.
- Provide consistent academic support to reduce variability in resources access.

For Institutions:

- Implement institutional peer mentoring to bridge minor performance gaps.
- Encourage active learning strategies to enhance study sets and task orientation.

For Researchers:

- Investigate longitudinal impact of training.
- Interventions on weal domains like language.
- Explore contextual factors influences support variability among males.

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