

# USE OF LEARNING AND STUDY STRATEGIES: DOES GENDER MAKE A DIFFERENCE?

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## **Abstract**

University students enjoy different learning and study strategies. Generally, male and female students exhibit different study behaviors. Gender differences in learning and study strategies usually fall short of supporting one sex. Aim of the present study is to investigate whether or not there are any gender differences in the use of learning and study strategies among Pakistani university students. Learning and study strategies inventory (LASSI) was administered to the sample of 465 students: 206 females and 259 males. Mean score of all the scales was calculated for both the groups. Independent sample t-test was applied to find out the differences between their mean scores on each scale. Female students have performed better on nine scales whereas male students are slightly better than females in study aids scale. This difference is significant on attitude, concentration and time management scales which are in favor of female students only.

**Keywords:** Gender, Learning and Study Strategies.

## **Introduction**

Entwistle, McCune, and Hounsell (2002) depicted that a number of variables are involved which affect the quality of learning at university and approaches to learning and studying are included in these variables. Students show variant strategic behaviors at different levels (Alexander, Graham & Harris, 1998). Learning strategies are "behaviors of a learner that are intended to influence how the learner processes information" (Mayer, 1988, p.11). Good strategy users possess three kinds of knowledge about strategies which are named as declarative, procedural and conditional (Hartman, 2001). Declarative knowledge is to know about a variety of strategies, procedural knowledge designate how to use these strategies and conditional knowledge is to decide when to use those strategies (Carrel, Gajdusek & Wise, 2001).

Regarding gender, there subsists a general argument that males and females differ vastly on psychological traits. But Hyde (2005), reviewing 46 research studies, advocates the gender similarities assumption that males and females are similar on most, but not all, psychological variables. He pointed out variation in gender differences at diverse age

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levels depending on different perspectives. As far as use of learning strategies is concerned, almost all the researchers agree that female students use more learning strategies than their male counterparts. Downing (2009) viewed gender differences initiated from two decisive features, natural distinction and different social images. He advocates that gender is usually based on biological foundations. "Gender" in the present study is the term to discriminate male and female participants. It includes their biological sex as well as their psychological and social character. Sizoo, Malhotra and Bearson (2003) found adult females significantly more motivated than adult males, while exploring relationship between anxiety and academic success they mentioned that both groups undergone through anxiety which reduced their academic success. Rusillo and Arias (2004) administered four questionnaires including LASSI on 521 grade 9th and 10<sup>th</sup> students. Results of their study showed that no gender differences exist in various cognitive motivational variables in which learning strategies' use was also included. Girls showed lower level of motivation but were better in use of information processing strategies.

Downing, Chan, Downing, Kwong, and Lam (2008) found that females demonstrated significantly higher levels of self-regulation and a more positive attitude to academic study than their male counterparts. Braten and Olaussen (1998) found that on the motivation, time management, and study aids subscales, the female students reported using more strategies than males, while it was the other way around on the anxiety and information processing subscales. Overall, female students tended to be somewhat more effective in their use of learning and study strategies than males. Yeung and Ha (2007) investigated the learning and study strategies of year one HKUST students. Statistically significant differences between male and female students on attitude and study aids scales were found. On the contrary, Nambiar (2009) concluded that factors as gender, age and ethnicity are not visible reflectors of strategy use rather may be the reflectors of strategy use. Agar and Knopfmacher (1995) investigated that students professed the most troublesome components of learning in motivation and anxiety. Whereas selecting main ideas and test taking strategies were emerged as their weak areas. Regarding the variable of gender few differences were found.

There is a growing body of research in various parts of the world on the use of study strategies by college and university students. In Pakistan, this tradition is less available. This concept has been investigated in Pakistan but with different angles, for example investigating learning styles of the students or their study habits. Iqbal and Shahzadi (2002) explored study habits of female students in a Pakistani University and reported that female students did not possess good study habits. Siddiqui (2004) while investigating study approaches reported no significant gender difference among Pakistani students.

Iqbal (2005) conducted a study on Pakistani students, studying in American Universities. He compared Pakistani and American students' scores on LASSI scales but gender differences were not measured. Iqbal, Sohail, and Shahzad (2010) examined this issue in one of the universities of Pakistan by comparing Pakistani students' LASSI profile with that of American norm on percentile ranks. Gender was not discussed in this study too. The present study is conducted in continuation of the previous study. In this study, gender differences are taken into account. Main purpose of it is to investigate whether or not there are any gender differences in the use of learning and study strategies among Pakistani university students.

### ***Method and Procedures***

#### ***Sample***

465 students from university of the Punjab constituted sample of the study. There were 206 female students and 259 male students.

#### ***Instrument***

Learning and Study Strategies Inventory (LASSI) developed by Weinstein, Palmer and Shulte (2002) was used as data collection tool. The ten scales are: anxiety (ANX), motivation (MOT), selecting main ideas (SMI), concentration (CON), self testing (SFT), information processing (INF), attitude (ATT), time management (TMT), test strategies (TST) and study aids (STA). For comparing scores of students standardized scores and national norms are provided in this inventory. Every scale contains eight items developed on five point scale. Coefficient Alphas range is .68-.82.

#### ***Procedure***

Students' responses were added to have total score for each scale. The maximum score against each scale may be recorded 40 while

minimum as 8, because each scale contains 8 items constructed on five point scale.

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### Analysis of Data

Mean score of all the scales was calculated for both the groups. Independent sample t test was applied to find out the differences between their mean scores on each scale.

### Results

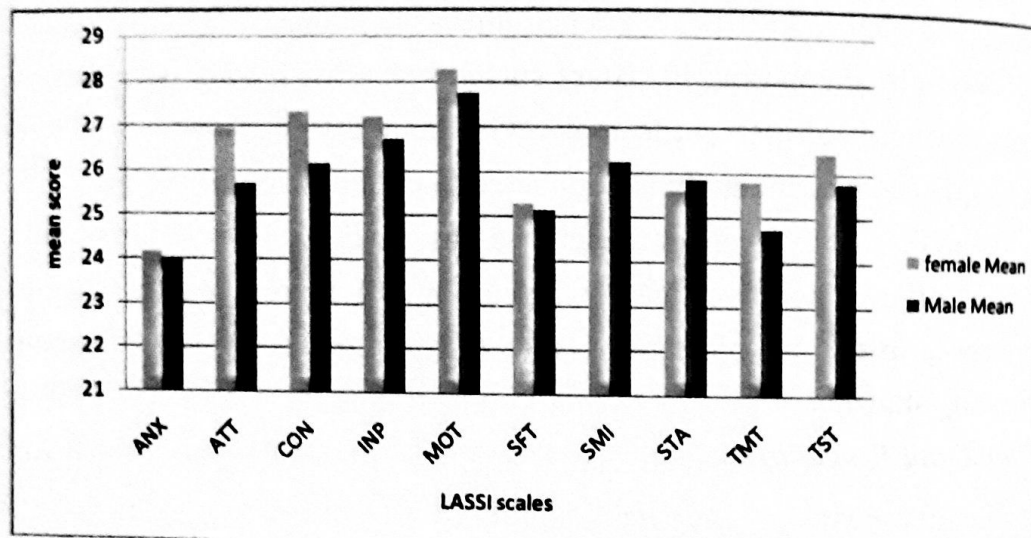


Figure-1: Mean score of LASSI scales for male and female students

Figure 1 displays a great gender difference in favor of female students. On anxiety, attitude, concentration, information processing, motivation, self testing, selecting main idea, time management and test strategies scales females have outperformed their male counterparts. Male students have scored somewhat higher on study aids scale.

Table-1: Independent sample t test for gender differences

LASSI Scales	Gender	Mean	SD	df	t value
Anxiety (ANX)	female	24.18	5.19	422	0.30
	male	24.02	5.69		
Attitude (ATT)	female	26.94	4.84	409	2.48*
	male	25.71	5.12		
Concentration (CON)	female	27.31	4.70	438	2.51*
	male	26.16	4.79		
Information Processing (INP)	female	27.22	5.45	434	0.95
	male	26.71	5.54		

Motivation (MOT)	female	28.28	5.94	434	0.99
	male	27.74	5.42		
Self Testing (SFT)	female	25.31	4.96	424	0.36
	male	25.14	4.91		
Selecting Main Idea (SMI)	female	27.03	5.79	421	1.49
	male	26.22	5.30		
Study Aids (STA)	female	25.61	4.45	422	-0.55
	male	25.86	4.73		
Time Management (TMT)	female	25.80	3.94	391	2.71**
	male	24.74	3.76		
Test Strategies (TST)	female	26.45	4.83	422	1.33
	male	25.79	5.30		

\*\* $p < .01$ , \* $p < .05$

Male students' mean score is slightly better than females in study aids scale. In rest of the nine scales, female students have performed better. This difference is significant on attitude, concentration and time management scales in favor of female students.

### **Discussion and Conclusion**

The profile comparison between female and male students indicated differences between these two groups on all of the LASS1 subscales. Female students scored higher on nine of the subscales. The groups were found to differ significantly on three of the subscales. Female students reported using more strategies than males on attitude, concentration and time management scales while it was the other way around on the study aids subscale. Overall, our analysis of gender differences suggests that female students tend to be somewhat more effective in their use of learning strategies than males. This is consistent with several recent studies of gender differences in students' strategy use (e.g., Downing, 2009; Sizoo et al., 2003; Rusillo & Arias, 2004; Downing, et al., 2008; Braten & Olaussen, 1998; Yeung & Ha, 2007). These differences indicate that female students have attributes of strategic learners more than males. Female students exhibit more vigilant, accountable, sober and emotional attitudes as compared to male students who were stated casual, tension free, and reckless (Iqbal, Shahzad & Sohail, 2010). Du, Weymouth and Dragseth (2003) also stated girls to be more concerned about school and learning, and hard worker than boys. Further research is needed to explore other possible causes of this difference.

Male students are diagnosed to be weak on attitude, anxiety, time management, test strategies, information processing, selecting main idea,

self testing, motivation, and concentration scales whereas their mean score is slightly better than females in study aids scale. Male students' low score on attitude scale indicates lack of interest in their academic achievement and university. Male students who scored low on anxiety scale can improve the situation by incorporating the strategies which can reduce worry related to academics. Male students' low score on concentration scale shows that they are deficient in focusing on academic activities. By scoring low on motivation scale male students showed their behavior of not to take responsibility for their studies and not trying to achieve their objectives as well. Male students' low score on information processing scale exhibited their less ability to process new information to become successful students. Selecting main ideas is an ability to separate out important points from the study and students' low score on this scale is an indication of a need to improve this ability by enhancing their comprehension. Male students with low score on self testing are supposed to lack in an ability to relate their knowledge in their studies. Time management ability is a parameter to distinguish between more important and less important tasks and to complete the academic as well as non academic tasks on priority basis. Low score on this scale is an indication of deficiency in male students in this regard. Male students are also required to improve test taking strategies. Female students' low score on study aids scale indicates that they need to enhance their ability of using available resources in a better way to become strategic learners.

It is recommended that courses on learning and studying strategies should be included in curriculum and they should be formulated in a way to avoid this gender disparity and it should be made possible to indulge students in activities which may be helpful to make them strategic learner.

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