

# **A COMPARATIVE STUDY OF THE FACTORS AFFECTING THE MALE AND FEMALE STUDENTS' ACADEMIC PERFORMANCE IN HIGHER EDUCATION (A CASE OF GOVERNMENT COLLEGE UNIVERSITY, LAHORE)**

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## **Abstract**

The gender differences can never be ignored in any society or community in all fields of life. Similarly, Academic performance in higher education may also be influenced by gender according to the demographic behaviour and personal attitude of the students towards studies. The objective of this study is to investigate the possible differences in gender wise academic performance in higher education. A sample of 285 students was selected from Government College University, Lahore and the requisite information was collected through a questionnaire which was developed for this purpose. The reliability of the instrument/questionnaire was measured by Cronbach Alpha. Descriptive and inferential measures were used to explain the factors affecting the students' academic performance. Furthermore, the Levene's and t-tests are used for inferential analysis. The software SPSS (Version-16) was used for the data analysis. The Levene's test suggested that the variances of both male and female students' performance were equal with  $F = 2.16$  at  $p\text{-value} = 0.143$  and pooled t-test analysis has suggested that the average percentage marks of male and female students' are significantly different with  $t = 2.206$  having  $p\text{-value} = 0.028$ . The averages of the performance of male and female students were 72.12 and 74.54, respectively.

The performance of female students' in higher education is found to be better as compared to the male students.

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**Keywords:** Higher Education, Academic Performance, Gender, Significant

## **Introduction**

A major challenge for the researchers is that how the gender attitude behaves differently in different fields of life including education, services in offices and in house hold matters, etc. The gender wise performance may behave differently based on several numbers of variables including demographic, social, cultural, etc. Gender has been found to influence the student's academic performance (Braddock, 1981; Simelane, 1996).

Lao (1980) found that the female students achieved higher Cumulative Grade Point Average (CGPA) as compared to male, during observing the academic performance before college level. While examining SAT-M scores of high school seniors, Young and Fisler (2000) observed that male students obtained better scores than females. Observing success in terms of course grades, Bridgeman and Wendler (1991) found that women had identical or higher grades in math classes.

The health of students can also influence on the students educational performance because with good health more work is possible than that of poor health (Hammer et al., 1998). Location of the Institution (Urban and Rural) was also investigated to be a significant factor contributing to students' academic performance (Glass et. al., 1982; Mosteller, 1995).

Parents' educational achievements were also observed to have a positively significant impact to enhance their children's academic performance (Durden & Ellis, 1995). Higher rate of success in graduation was found in college students whose parents' had attained higher educational level (Swell & Shaw, 1968). Moreover, the personal behaviour of the student towards studies may also play an important role in order to enhance the students' performance. This behaviour may vary from male to female. The female students can achieve higher grades than male students because they attend lectures more regularly than male and sit in the front of the classroom (Brooks and Rebata, 1991).

Past academic performance, age, gender, work done at home, time spent reading in the library, and students' behaviour toward school were found to be the significant factors for the determination of students performance (Sithole and Dlamini, 1997). Hence, it may be expected that the time spend in cafeteria and studies other than class hours may affect the academic performance. The studies other than class hours were found to be inversely significant with the students' academic performance (Hijazi and Naqvi, 2006).

Now a day, the importance of internet cannot be denied in the higher education studies. Because the latest material related to the different concepts is available on the internet. So, it is expected that the use of internet can influence on the students' academic performance. Aleamoni (1977) found that the past behavior is considered the best predictor of the future behavior.

Abdullah et al. (2008) investigated from a sample of 153 students of different gender to analyze the association between academic achievements and gender and reported that only 1.9% variations in academic score belong to intelligence and gender.

The overall objective of this study is to find out the factors that explain the difference in male and female students' achievement and also to look at the comparative importance of these factors. The set of variables explaining the performance related to the students' profile their activities in studies are considered in this study.

### Material and Method

The students who had qualified their comprehensive exams of MA/MSc part-I were considered as sampled population of 14 department of the Government College University Lahore, having 285 students consisting on 91 males and 194 females. The requisite information was obtained through a questionnaire which was designed by the researcher with the help of different educationists. The reliability of this instrument was found to be 0.81 on the basis of Cronbach's Alpha. The data obtained from the students was of continuous and qualitative type. The qualitative data was converted into the 5-points Likert scale and in the form of dummy variables. The 5-point Likert scale was used to represent the income groups, parents' education, participation in debates and sports, health conditions and use of internet in studies. The marks of the students in BA/BSc and MA/ MSc part-1 were taken in percentages (continuous variable). To measure the academic performance, percentage of total marks obtained in MA/ MSc part-1 was considered. Time spent in cafeteria and in study hours were taken as continuous variables. Some of the variables showing 5-point Likert scale were presented in Table 1.

Table 1 The 5-point Likert scales for Income and Education level

Likert's 5-point	Income Ranges (Rupees)	Percentage	Category	Level of education
1	Below 10000	17.9	Very Poor	Under SSC
2	10001 to 20000	26.7	Poor	SSC
3	20001 to 30000	22.8	Lower Middle Class	F.A/F.Sc
4	30001 to 40000	9.1	Upper Middle Class	B.A/B.Sc
5	40001 and above	23.5	Rich	Master and above

## Results and Discussions

In order to investigate differences in male and female academic performance, descriptive measures especially frequencies, percentages, averages and the standard deviation were computed. For inferential purpose, Levene's test and t- test are used to test the equality of the variances and of means of the percentage marks of MA/ MSc part-1 male and female students, respectively. From the Levene's test, the  $F = 2.16$  is found to be insignificant at  $p\text{-value}=0.143$  which means that the variances of both male and female students' performance (percentage of marks) are equal. Therefore, pooled t-test analysis is used which has suggested that the average percentage marks of male and female students' are significantly different with  $t= 2.206$  having  $p\text{-value}= 0.028$ . The averages of the performance of male and female are 72.12 and 74.54, respectively (from Table 3). The average percentage marks of female students' are significantly higher than the male. Therefore, it is concluded that the performance of female students' in higher education is better as compared to the male students. Table 2 & 3 are used to find out the reasons which are responsible for this difference in the performance of male and female students.

From Table 4, it is observed that the counts (percentages) of the male and female students in this study were 91(32%) and 194 (68%), respectively. In the similar way, the counts (percentages) of the male and female students belong to the urban areas were 65% and 84%, respectively which means that the much higher percentage of the female students are coming from the urban areas as compared to males. On the other hand, 35% of the males and 16% of the females are coming to the university from the rural areas.

The percentages of male and female students whose fathers/guardians belonged to the government service were 32% and 35%, respectively. Similarly, 24% and 27%, respectively were belonging to the business while the remaining 44% and 38%, respectively were belonging to the other professions. It means that higher percentage of the fathers of female students belong to the government services as compared to the male students. The average income of the fathers/guardians of the students belonging to government service, business and other professions were Rs.30,188, Rs. 41,733 and Rs.32,356, respectively. In the overall study, the average income of the fathers / guardians of female and male were Rs. 44,268 and Rs.32,384, respectively. It is an evident that the female students are coming to the university from the rich families as compared to the males because the average income of the female students' house holds is much more than the male students.

Table 2 Gender wise Descriptive Measures Presenting Demographic Factors

<b>Male Students</b>					
Measure	Govt. Service	Others	Business	Residential Area (U=1/R=0)	Family Income in Rupess (Pakistan)
n	91	91	91	91	91
Mean	0.32	0.44	0.24	0.65	32,384
<b>Female Students</b>					
n	194	194	194	194	194
Mean	0.35	0.38	0.27	0.84	44,268
<b>Averages of Monthly Income (in Rupees) of Three Occupational Groups</b>					
Average Monthly Income of Govt. Servants = Rs.30,188					
Average Monthly Income of Businessmen = Rs.41,733					
Average Monthly Income of Others = Rs.32,356					

From Table 3, it is observed that the mean levels of the fathers' education of the male and female students are 2.70 and 3.65 with standard deviations 1.5 and 1.2, respectively. Similarly, the mean levels of the mothers' education of the male and female students are 2.08 and 3.16 with standard deviations 1.28 and 1.21, respectively. The mean educational level of the parents of female students is much higher and consistent than that of the male students. Because the averages education levels of female students are higher and standard deviations are smaller than that of the parents of males.

The average levels of participation in debates of male and female students are 1.75 and 1.91 with standard deviations 1.06 and 1.07, respectively. The variation is approximately same in both cases but the average level of female students' participation in debate is much higher as compared to the male students. It is indication that the females perform better in debates as compared to the males.

The average levels of participation in sports of male and female students are 2.45 and 1.8 with standard deviations 1.28 and 1.10, respectively. The average level of female students' participation in sports is less as compared to the male students. The only factor in which the performance of male students is better than the female students but this factor also causes the reduction in the average percentage of the marks due to the wastage of time and remains absent from classes.

The average levels of the use of internet in studies of male and female students are 2.91 and 3.42 with standard deviations 1.31 and 1.15, respectively. The average level of female students' use of internet in studies is higher as compared to the male students. The use of internet in studies is a great source of knowledge that affects the students learning and is useful for the better performance.

The average levels of health conditions of male and female students were 3.87 and 3.80 with standard deviations 1.107 and 0.996, respectively. The average level of all students' including male and female have very good health in this institution. The health of the students is the basic requirement for better performance.

The daily average time spent in cafeteria by male and female students is 0.801 and 0.614 hours (48 and 36 minutes), respectively. Male students are spending the more time in cafeteria as compared to females which indicate that the males are wasting their more time as compared to females. This factor can reduce the performance of male students. The daily average study hours other than class hours of male and female students are 2.705 and 2.854 hours (2 hours & 42 minutes and 2 hours & 51 minutes), respectively. Female students are spending more time in studies other than class hours as compared to male students.

The average percentages of the graduation marks of the male and female students are 55.60 and 57.82 with corresponding standard deviations 8.22 and 8.79, respectively. It is evident that the average of the graduation marks of female students is higher as compared to the males. Aleamoni (1977) found that the past behavior is considered the best predictor of the future behavior. Dlamini (1995) also investigated the good performance of students in past remains continue in future during studying the best predictors of Swaziland secondary school students' performance in agriculture from the home and school related variables.

## **Conclusion**

It is investigated that the performance of the female students is significantly higher as compared the male students on the basis of different factors. The major factors including parental education, participation in debates, better income support, use of internet in studies, better performance in BA/BSc classes, time spent in studies other than class hours are contributors for higher performance.

Table 3 Gender-wise Descriptive Measures Presenting Mean &amp; Std. Deviations

Factors & performance	Female=0, Male=1	Means	Standard Deviations
Performance*	0	74.54	8.32
	1	72.12	9.25
Percentage of marks in BA/BSc	0	57.82	8.79
	1	55.60	8.22
Fathers' Education	0	3.65	1.20
	1	2.70	1.49
Mothers' Education	0	3.16	1.21
	1	2.08	1.28
Participation in Debates	0	1.91	1.08
	1	1.75	1.06
Participation in Sports	0	1.80	1.10
	1	2.45	1.28
Use of internet	0	3.42	1.15
	1	2.91	1.31
Health condition	0	3.80	0.99
	1	3.87	1.06
Daily Cafeteria hours	0	0.61	0.75
	1	0.80	0.83
Daily Study hours	0	2.85	1.67
	1	2.71	1.56

\*Percentage of marks in MA/MSc part-1

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