

DO PERSONALITY FACTORS AND GENDER INFLUENCE ACADEMIC ACHIEVEMENT?

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Abstract

The present study examined the influence of various factors of Personality (PER) on Academic Achievement (AA) of adolescent students in relation to their Gender. A sample of 1246 students of class 10+1 (585 males, 661 females) senior secondary schools of Amritsar district affiliated to P.S.E.B, Mohali. For collecting data Jr. Sr. High School Personality Questionnaire (H.S.P.Q.) developed by Dr. R.B. Cattell and Mary D. L. Cattell (1999) and scores in final examination (10th) was taken as academic achievement of the students. Results of ANOVA showed that there was no influence of interaction between gender and personality factor A, B, C, D, E, F, G, I, J, O, Q2, Q3 and Q4 on academic achievement of adolescents; a significant influence of interaction between gender and personality factor H on academic achievement of adolescents was found.

Key Words: Personality, Academic Achievement, Adolescent.

The concept of providing education is changed from enhancing the achievement in subjects to harmonious development of learner, now parents want that their kids get admission in that school which has facilities like smart classrooms, smart boards, computer based learning and hi-tech language laboratories. Stephen (1958) pointed that academic achievement is the unique responsibility of educational institution established by the society to promote the development of learners. The development of the learners is possible only if proper individual attention is given to them for enhancing the knowledge attained or skills developed in school subjects usually reflected by test scores or marks assigned by the teachers or by both (Good, 1973).

Thus, there are various aspects of the concept of academic achievement which have a great bearing on the personality of students. From an early age, a sense of achievement is a source of good feeling and self esteem and failure as a source of disgrace and self reproach. It is concerned with the quantity and quality of learning in a subject or group of subjects, assessed by examination marks (Pandey, 1998). It is the status or level of a person's skills, the range and depth of his knowledge or his proficiency in a designated area of learning or behaviour (Horrock, 1969).

Personality is an explicit construct which is invoked to explain behavioural consistency within a person and behavioural distinctiveness between persons (Webster, 2002). Personality is the inner experience that is reflected in the characteristics of individual's mind (Thomas, 1985). The

key goal of the individual is to understand the needs and conflicts residing in his own unconscious behaviour and to integrate this understanding into conscious behaviour. It is the sum total of all the biological innate dispositions, impulses, tendencies, appetites and instincts of an individual and the dispositions and tendencies acquired by experience (Prince, 1989). In this way, the term personality signifies something deeper than mere appearance or conduct, it involves behaviour activities, movements and everything else concerning the individual inward and outward behaviour. It helps to differentiate people or the stability in a person's behaviour across different situations as personality deals with individual's behaviour.

Objective:

To study the influence of gender, personality factors and their interaction on academic achievement of adolescents.

Sample:

The study was conducted on a sample of 1246 students of 10+1 from senior secondary schools of Amritsar district affiliated to P.S.E.B., Mohali. The sample consists of males (585) and females (661) adolescents selected through cluster sampling technique. The age-range of the adolescents were between 15 to 18 years.

Procedure :

Descriptive survey method of research was employed for the present study. Jr. Sr. High School Personality Questionnaire (H.S.P.Q.) developed by Dr. R.B. Cattell and

Mary D. L. Cattell (1999) was employed on the students of 10+1 class. The data for the present research was collected personally by the investigator from private (16), aided (13) and government (14) schools included in the sample.

Measures:

Jr. Sr. High School Personality Questionnaire (H.S.P.Q.) developed by Cattell and Cattell (1999) was used to assess the personality factors of adolescents consisting of

142 questions with fourteen factors viz. A (Reserved/Warmhearted), B (Less Intelligent/More Intelligent), C (Affected by feelings/Emotionally Stable), D (Undemonstrative/ Excitable), E (Obedient/ Assertive), F (Sober/ Enthusiastic), G (Disregards rules/Conscientious), H (Shy/ Adventurous), I (Tough Minded/Tender minded), J (Zestful/ Circumspect individualism), O (Self Assured/ Apprehensive), Q2 (Socially group dependent/self sufficient), Q3 (Uncontrolled/ Controlled), Q4 (Relaxed/Tense)

Results and Discussion

Table 1: Summary of ANOVA for Academic Achievement

Source of Variance	Sum of Squares	Df	Mean Square	F	Sig.
Per. Factor A	73.590	2	36.795	0.528	0.590
Per. Factor B	479.459	2	239.730	3.455	0.032
Per. Factor C	404.937	2	202.468	2.913	0.055
Per. Factor D	413.091	2	206.545	2.974	0.051
Per. Factor E	80.987	2	40.494	0.580	0.560
Per. Factor F	141.743	2	70.872	1.016	0.362
Per. Factor G	96.728	2	48.364	0.693	0.500
Per. Factor H	880.254	2	440.127	6.381	0.002
Per. Factor I	9.977	2	4.988	0.071	0.931
Per. Factor J	443.453	2	221.727	3.190	0.142
Per. Factor O	285.035	2	142.518	2.048	0.129
Per. Factor Q2	150.984	2	75.492	1.083	0.339
Per. Factor Q3	65.874	2	32.937	0.472	0.624
Per. Factor Q4	128.925	2	64.463	0.924	0.397

The F value for personality factor A, C, D, E, F, G, I, J, O, Q2, Q3, Q4 are 0.528, 2.913, 2.974, 0.580, 1.016, 0.693, 0.071, 3.190, 2.048, 1.083, 0.472 and 0.924 respectively which were not significant. It means that mean score of academic achievement of adolescents having different levels of personality factor (A, C, D, E, F, G, I, J, O, Q2, Q3 and Q4) do not differ significantly. It may, therefore be concluded that above said personality factors did not influenced the academic achievement of adolescents.

The F value for personality factor B is 3.455(table 1), which is significant at 0.05 level with *df* 2/1240. It means that mean score of academic achievement of adolescents having different levels of personality factor B differ significantly. In order, to know the significant difference in academic achievement between each level of personality factor B, the data was analyzed with the help of *t*-test, the results of which are given in table 2

Table 2: Personality Factor B wise Mean, SD, N and t-value for Academic Achievement

Per. Factor B	Mean	SD	N	Average	High
Low	61.46	8.83056	296	2.696**	0.073
Average	62.97	8.19354	921	-	1.056
High	61.34	7.83890	29	-	-

**significant at 0.01 level

From table 2 it is evident that t-value for low and average level of personality factor B is 2.696, which is significant at 0.01 level with df 1215. It reflects that mean score of academic achievement of adolescents with low and average level of personality factor B differ significantly. The mean score of academic achievement of average personality factor B is 62.97, which is higher than that of low (61.46) and high (61.34) personality factor B. It may, therefore be concluded that adolescents having average personality factor B possessed slightly higher academic achievement than those having low and high personality factor B. The t-value for low and high, and average and high level of personality factor B are 0.073 and 1.056 respectively, which

are not significant. It reflects that mean score of academic achievement of adolescents with above said levels of personality factor B did not differ significantly.

The F value for personality factor H is 6.381 (table 1), which is significant at 0.01 level with df2/1240. It means that mean score of academic achievement of adolescents having different levels of personality factor H differ significantly. It may, therefore be concluded that personality factor H influenced the academic achievement of adolescents. In order, to know the significant difference in academic achievement between each level of personality factor H, the data was analyzed with the help of t-test, the results of which are given in table 3

Table 3: Personality Factor H wise Mean, SD, N and t-value of Academic Achievement

Per. Factor H	Mean	SD	N	Average	High
Low	62.5079	8.15426	126	0.204	2.271*
Average	62.3458	8.44901	1012	-	2.951**
High	64.8426	7.45599	108	-	-

*significant at 0.05 level, ** significant at 0.01 level

From table 3 it is evident that t-value for average and high level of personality factor H is 2.951 which is significant at 0.01 level with df 1116, and for low and high level of personality factor H is 2.271 which is significant at 0.05 level with df 232. It reflects that mean score of academic achievement of adolescents with low and high, and average and high level of personality factor H differ significantly. The mean score of academic achievement of

high personality factor H is 64.84, which is higher than that of low (62.50) and average (62.34) level of personality factor H. It may, therefore be concluded that adolescents having high personality factor H possessed higher academic achievement than those having low and average personality factor H. But t-value for low and average level of personality factor H is 0.204 which is not significant.

Table 4: Summary of 2x3 (Gender and Personality Factors) Factorial Design ANOVA for Academic Achievement

Source of Variance	Sum of Squares	df	Mean Square	F	Sig.
Gender	304.069	1	304.069	4.360	0.037
Gender * Per. Factor A	65.189	2	32.594	0.467	0.627
Gender * Per. Factor B	81.462	2	40.731	0.587	0.556
Gender* Per. Factor C	66.768	2	33.384	0.480	0.619
Gender * Per. Factor D	84.288	2	42.144	0.607	0.545
Gender * Per. Factor E	36.988	2	18.494	0.265	0.767
Gender * Per. Factor F	21.537	2	10.769	0.154	0.857
Gender * Per. Factor G	1.430	2	0.715	0.010	0.990
Gender * Per. Factor H	418.031	2	209.016	3.030	0.049
Gender * Per. Factor I	43.509	2	21.755	0.312	0.732
Gender * Per. Factor J	0.104	2	0.052	0.001	0.999
Gender * Per. Factor O	96.095	2	48.047	0.690	0.502
Gender * Per. Factor Q2	71.443	2	35.721	0.513	0.599
Gender * Per. Factor Q3	109.539	2	54.770	0.785	0.456
Gender * Per. Factor Q4	55.368	2	27.684	0.397	0.672

From table 4 it is clear that F value for gender is 4.360, which is significant at 0.05 level with df 1/1240. It means that mean score of academic achievement of male and female adolescents differ significantly. The mean score of academic achievement of females (63.11) is higher than males (61.97). Most of the research studies emphasized that academic achievement of females was higher than male students as Misra (2005), Usha (2007), Sarsani et al. (2010) and Prakash et al. (2010). Some research studies emphasized that academic achievement of males was higher than females as Dixit (2002), Singh et al. (2007) and Singh et al. (2010). Some research studies emphasized that there was no significant difference between males and females with regard to academic achievement as reported by Sindhu (2005), Rajendran et al. (2007) and Pandey et al. (2008). Some studies reported significant differences or relationship of academic achievement in relation to gender without any direction as reported by Vamadevappa (2005), Bajwa et al. (2006), Meera et al. (2008), Dhall et al. (2009), Aruna et al. (2009) and Ponraj et al. (2010).

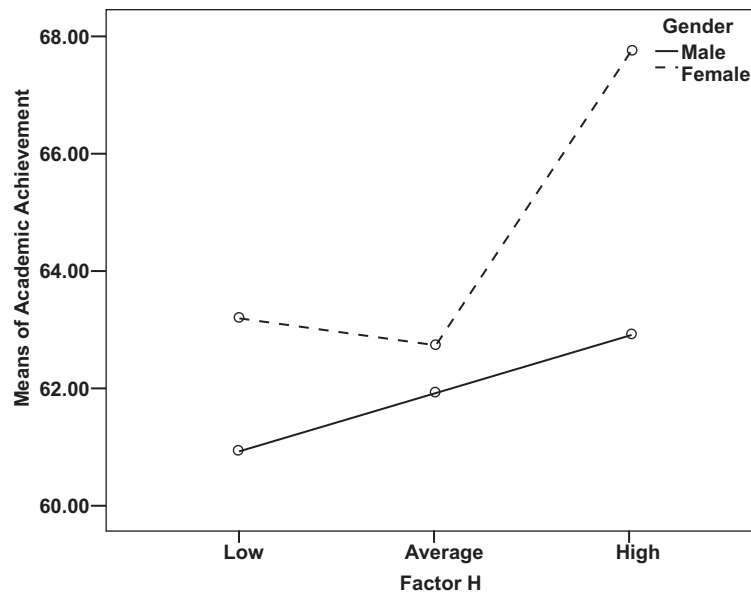
The F value for interaction between gender and personality factor A(0.467), gender and personality factor B(0.587), gender and personality factor C(0.480), gender and

personality factor D (0.607), gender and personality factor E(0.265), gender and personality factor F(0.154), gender and personality factor G(0.010), gender and personality factor I (0.312), gender and personality factor J(0.001), gender and personality factor O(0.690), gender and personality factor Q2(0.513), gender and personality factor Q3(0.785), gender and personality factor Q4(0.397) are not significant. It means that mean score of academic achievement of male and female adolescents having above said levels of personality factors do not differ significantly. It may, therefore be concluded that male and female adolescents having different levels of personality factors possessed same level of academic achievement.

The F value for interaction between gender and personality factor H is 3.030, which is significant at 0.05 level with df 2/1240. It means that mean score of academic achievement of male and female adolescents having different levels of personality factor H differ significantly. It may, therefore be concluded that male and female adolescents having different levels of personality factor H possessed different level of academic achievement.

In order to know the trend of influence of interaction between gender and personality factor H on academic achievement, the figure 1 has been plotted

Figure 1: Influence of Interaction between Gender and Personality Factor H on Academic Achievement



From figure 1 it is evident that at low level of personality factor H, the mean score of academic achievement of adolescent females is higher than male adolescents, whereas with average personality factor H there is decrease in mean score of academic achievement of adolescent females but there is slight increase the mean score of academic achievement of male adolescents. With high personality factor H there is sharp increase in the academic achievement of adolescent females as compare to male adolescents. It may, therefore be concluded from the figure that at low, average and high level of personality factor H the academic achievement of female adolescents washigher than male adolescents.

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