

The Relationship between Personality Dimensions and Academic Achievement of High School Girls of District Five of Tehran

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ABSTRACT: The aim of this study was to investigate the relationship between personality dimension and academic achievement of high school girls in district five of Tehran. The research method was descriptive-correlational. The study population included all girls of high school in district 5 of Tehran with 5,000 people. According to Cochran sample size, the number sample size of this study was 356 respondents from which the method of random sampling was selected. An instrument of collecting data was a questionnaire of five personality traits. To analyze the data, descriptive statistics (charts, tables, mean, and standard deviation) and inferential statistics (Pearson correlation and multiple regression analysis) were used. Research findings showed that there was a positive and significant relationship between personality trait and academic achievement of high school girls in district five of Tehran. The results of multiple regression analysis also indicated that there was a significant relationship between personality dimensions (extraversion, flexibility, being conscientious, being consistent) and academic achievement. This means that personality dimensions significantly have the ability to predict their academic achievement. There is a negative and significant relationship between subscales of neuroticism and academic achievement. Based on the results, educational achievement of people is affected by their mental state. Therefore, most of mental and personality issues of the students and activation of mental consultation centers necessary are necessary for them.

Keywords: Personality Traits, Academic Achievement, Students.

INTRODUCTION

Today, the academic achievement of students is considered as an important indicator for the evaluation of educational systems. In addition, academic improvement has always been important for teachers, students, parents, theorists and researchers because this important factor is not only an important criterion in evaluating the performance of teachers, but also this indicates the ability of individuals in the world of work and employment and admission to higher educational levels (Zamani & Nasr, 2004). The indicator of academic achievement is an achievement measured widely and consistently (Dipaola & Hoy, 2005). On the other hand, this is associated with many factors including the value system of the school, emotional relationships within the school, the system of punishment and reward qualified teachers, class structure, teaching methods, etc., and this affects it in some way (Bahrami & Rezvan, 2006) which this approach is not analyzed apart from the cases mentioned, but in addition to

these factors, another factor called as a suitable physical and joyful space can play a role in this process in a way that this has been less studied. In fact, the appropriate physical and joyful space is among the internal effective factors on the schools directly and indirectly to the students (Hajibabae, 2012). In acknowledgment of the claim, Dorman indicates before that one of the factors affecting the activity of schools and teachers is the school environment. In fact, the school environment is associated with the management of educating the schools which considers the school as a formal organization. Therefore, this environment is similar to social groups in terms of goals, results roles, organizational structure, reward systems, collaborative activities and parent-teacher relationship. It is for years that the school space is studied as an important aspect of each school. In addition, the environment is the basis for the formation of many behavioral characteristics and in other words, many emotions, habits, tastes and even attitudes, meetings are affected as such a wondrous environment. The students spend most of the day in the training units after their residential environment and given the essential role of education in shaping the culture of the society, it is necessary that in addition to the importance of the process, a favorable environment be emphasized that enthusiasm and motivation is caused to the process of teaching and learning in the students (Hemmat, 2009).

Psychologists believe that every behavior which one shows is affected environmental, emotional and personality factors which the purpose of the personality factors is in fact the same characteristics (Laidra et al., 2008). Personality characteristics represent those characteristics of each individual or individuals including their fixed thought, emotion and behavior patterns.

Social interactions are especially important today. Also, considering the importance of personality study and its role in behavior, it is natural to assume that throughout the history, the psychology has given a special place to the personality. The investigation of the relationship between personality features and social interactions have been of interest to the researchers. A comprehensive understanding helps the student achievement and the factors affecting it and emphasizes on the relationship among those mentioned above with the student achievement. Therefore, taking advantage of the above, this research seeks to answer the question that is there a significant and positive relationship between personality dimensions and academic achievement of high school girls of district five of Tehran?

MATERIALS AND METHODS

The present research was performed to determine the relationship between personality dimensions and academic achievement of high school girls of district five of Tehran. The research is descriptive and correlational. The study population included all high school students of district five of Tehran. According to statistics, their number was calculated to 5000. The sample size is used by the sampling method of Cochran sample size in the level of 5 percent that the number of the sample size was calculated 356 people using the calculation of Cochran formula and they were selected by the method of simple randomization.

The instrument used in this study included a questionnaire short form of five personality characteristics NEO called (NEO-FFI). NEO Personality Questionnaire was developed in 1985 by McCrae and Costa. The short form of the questionnaire includes 60 questions and is used to evaluate five personality features. If the test execution time is very limited and general information of the personality is sufficient, this questionnaire is used. On the other hand, the implementation of this test is affordable in terms of cost and time. Scales are highly reliable and the correlation among the scales is large. More importantly, unlike other personality tests, fewer criticisms have been mentioned (Garousi Farshi, 2001). The questionnaire is set based on Likert scale (strongly disagree, disagree, neutral, agree and strongly agree). Scoring the short form of the questionnaire, NEO-FFI, is not identical in all cases. This means that in scoring some materials, the short form of the questionnaire includes score 4 to strongly disagree, score 3 to disagree, score 2 to neutral, score 1 to agree and score 0 to strongly agree while some of the materials of this short form is said to be scored reversely (Garousi Farshi, 2001).

Currently, the five-factor test of NEO has a global application and this is translated into Czechoslovakia, Arabic, Dutch, French, German, Japanese, Norwegian, Polish and Swedish languages in order to do the research. NEO-FFI personality questionnaire was conducted by McCrae and Costa on 208 American students within three months that their reliability coefficients were obtained from 0.83 to 0.75. In the validation of test of NEO performed by Garousi Farshi (2001), the correlational coefficient has reported 5 main dimensions from 0.56 to 0.87. In each of the main factors of neuroticism, extraversion, openness, and conscientiousness, Cronbach's alpha coefficients were obtained 0.86, 0.73, and 0.56. 0.68 and 0.87, respectively (Garousi Farshi, 2001).

RESULTS

Assuming a normality of data was studied through the implementation of Kolmogorov-Smirnov test (test KS) which the result is shown in the Table below.

Table 1. Normality test of research variables.

Component	Sig	Result
Neuroticism	0.31	Normal
Extroversion	0.14	Normal
Flexibility	0.07	Normal
Conscientiousness	0.21	Normal
Compatibility	0.46	Normal

Typically in human sciences, confirmation or rejection of hypotheses can be expressed with the confidence 95%. On the other hand, the calculated error (sig) obtaining using SPSS indicates the error rate that this is performed in rejecting H0 hypothesis. Therefore, when this amount is more than 0.05 (1- 0.95), H0 hypothesis cannot be rejected easily. However, with the confidence 0.95%, we cannot claim to reject the H0 hypothesis. In other words, on all variables, H0 hypothesis reflecting the normality of the data has been confirmed.

Since the results of the test of Kolmogorov-Smirnov indicate that the variables are normal, Pearson test is used to study the hypothesis of the research.

Table 2. Test of Pearson correlation coefficient between personality characteristics and academic achievement of high school girls.

Predictor variable	Pearson correlation coefficient	Sig.	Number
Neuroticism	-0.450	0.001	356
Extroversion	0.515	0.001	356
Flexibility	0.538	0.001	356
Conscientiousness	0.605	0.001	356
Compatibility	0.579	0.001	356

Table 3. Regression Table between personality characteristics and academic achievement of high school girls of district five of Tehran.

Predictor variable	Std. Error	Beta	SS	df	F	Sig.
Neuroticism	0.057	0.594	609.581	1	68.485	0.001
Extroversion	0.058	0.568	797.684	1	97.229	0.001
Flexibility	0.042	0.444	870.495	1	109.703	0.001
Conscientiousness	0.038	0.0473	988.937	1	155.821	0.001
Compatibility	0.052	0.605	906.413	1	136.256	0.001

According to the results of the above Table, the relationship between subscale of neuroticism and academic achievement of high school girls of district five of Tehran and the relationship among these variables and the correlational coefficient is 0.450 and the error rate calculated (sig) is less than the standard error (0.05) and Beta is 0.594. This means that 59.4 percent of the variables of the dependent variable of academic achievement are explained by the variable of the subscale of neuroticism; also, the significant level which is less than 0.05% indicates that there is not a significant and positive relationship between subscale of neuroticism and academic achievement of high school girls of district five of Tehran.

The relationship between subscale of extroversion and academic achievement of high school girls of district five of Tehran and the relationship among these variables and the correlational coefficient is 0.450 and the error rate calculated (sig) is less than the standard error (0.05) and Beta is 0.568. This means that 56.8 percent of the variables of the dependent variable of academic achievement are explained by the variable of the subscale of extroversion; also, the significant level which is less than 0.05% indicates that there is a significant and positive relationship between subscale of extroversion and academic achievement of high school girls of district five of Tehran.

The relationship between subscale of flexibility and academic achievement of high school girls of district five of Tehran and the relationship among these variables and the correlational coefficient is 0.538 and the error rate calculated (sig) is less than the standard error (0.05) and Beta is 0.444. This means that 44.4 percent of the variables of the dependent variable of academic achievement are explained by the variable of the subscale of flexibility; also, the significant level which is less than 0.05% indicates that there is a significant and positive relationship between subscale of flexibility and academic achievement of high school girls of district five of Tehran.

The relationship between subscale of conscientiousness and academic achievement of high school girls of district five of Tehran and the relationship among these variables and the correlational coefficient is 0.605 and the error rate calculated (sig) is less than the standard error (0.05) and Beta is 0.473. This means that 47.3 percent of the variables of the dependent variable of academic achievement are explained by the variable of the subscale of conscientiousness; also, the significant level which is less than 0.05% indicates that there is a significant and positive relationship between subscale of conscientiousness and academic achievement of high school girls of district five of Tehran.

The relationship between subscale of compatibility and academic achievement of high school girls of district five of Tehran and the relationship among these variables and the correlational coefficient is 0.579 and the error rate calculated (sig) is less than the standard error (0.05) and Beta is 0.605. This means that 60.5 percent of the variables of the dependent variable of academic achievement are explained by the variable of the subscale of compatibility; also, the significant level which is less than 0.05% indicates that there is a significant and positive relationship between subscale of compatibility and academic achievement of high school girls of district five of Tehran.

DISCUSSION AND CONCLUSION

The results of this issue indicate that the subscale of neuroticism has not a significant and positive effect on academic achievement of high school girls of district five of Tehran (-0.450). The significant relationship among the variables of the research can be for this reason that ease concerns, the general feeling to unpleasant irritation, waiting for the danger and fear of risk could have an impact on student achievement. Also, the results showed that the subscale of extroversion had a significant and positive effect on academic achievement of high school girls of district five of Tehran (0.515). The significant relationship among the variables of the research can be for this reason that when the students pay attention to objects and foreign affairs that these voluntary actions and other basic functions of the man is not the result of subjective evaluation, but it is the result of affairs and external relations that this can have the effect on the student achievement. Another result showed that the subscale of extroversion had a significant and positive effect on academic achievement of high school girls of district five of Tehran (0.538). The significant relationship among the variables of the research can be for this reason that the flexibility is correlated with intelligence scores. Flexibility has had the impact with the academic advancement of the students, especially with the different aspects of intelligence such as divergent thinking, which is a factor in creativity. Also, the results showed that the subscale of conscientiousness had a significant and positive effect on academic achievement of high school girls of district five of Tehran (0.635). The significant relationship among the variables of the research can be for this reason that when stressful situations, than those with lower scores for being conscientious, they are likely to show healthier behaviors which cause academic achievement of the students. Finally, the results showed that the subscale of compatibility had a significant and positive effect on academic achievement of high school girls of district five of Tehran (0.579). The significant relationship among the variables of the research can be for this reason that charm and compatibility lead to the interest of students to study and academic achievement of the students. The results are consistent with most research in this area.

Keshavarz et al (2013) showed in their research that personality features and cognitive styles have a significant relationship with academic achievement. The results of stepwise regression analysis showed that personality traits and cognitive styles were able to account for 50 percent of the changes in academic achievement. Conscientiousness with prediction of 39 percent of the variance in academic achievement is the strongest predictor of academic performance. The share of cognitive styles in the determination of academic advancement variations was significant to 2.1%. There are no found significant differences in personality traits, cognitive styles and academic achievement between two sexes.

Jafarinejad et al conducted a research entitled the study of the relationship between personality characteristics and methods of study and academic achievement in students of Tehran Allameh Tabatabaei University. 110 people were selected as a sample in the method of cluster sampling. Data analysis and Pearson correlation showed that there was a negative relationship among personality characteristics and neuroticism and cursory reading and academic achievement, there was a positive relationship among personality traits of extraversion, agreeableness,

conscientiousness and deep study and academic achievement and there was no significant relationship between personality trait of openness and academic achievement. Also, the results of multivariate regression indicated that deep and surface method of studying and personality traits of conscientiousness, neuroticism and extraversion had the ability to predict academic achievement. The students who possess the personality traits of extraversion, agreeableness and conscientiousness and use surface method of studying have more academic advancement. Farsides and Woodfield (2008) state, the component of openness (openness in comparison to experience) has a positive relationship with academic success and advancement. Also, the result of the research of Laidra et al (2008) indicates the positive relationship of the adjustment component with academic achievement.

Conflict of interest

The authors declare no conflict of interest

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