



Correlation between the Five-Factor Model of Personality- Happiness and the Academic Achievement of Physical Education Students

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ABSTRACT

Recognizing psychological aspects of students and their reactions in special occasions could act as a strong educational aid and it could result in increasing the effect of educational aid and in terms of economics it is efficient for the students, teachers and education system. Lack of happiness and low self-confidence are considered as factors resulting in decreasing the quality of life and academic status of university students. The main aim of the current research is surveying the correlation between welfare and academic achievement of physical education students. From the point of aim this research is an applied research and from the point of methodology it is a correlative research, and data are collected through field data collection. For determining the personality the NEO-FFI standard personality inventory was used and for determining the happiness the Oxford happiness questionnaire was used and also for measuring the academic achievement of the students the GPA of two semesters was used. The research samples include 357 physical education university students of Tehran and also the statistical methods of Pearson correlation coefficient, and regression were used by the use of SPSS 20 software. Results showed that in addition to the positive and significant correlation between happiness and academic achievement of the university students, the happiness could also explain 13% of changes in academic achievements.

Key words: Five Personality Traits, Happiness, Academic Achievement, and Physical Education University Student.

INTRODUCTION

In previous years the personality researches did not have any appropriate framework for describing the structure and nature of personality, and there were some controversies among the researchers about the personality traits. However nowadays researchers have agreed that the five-factor model of personality often called as the **big five** introduced by Goldberg (1990) could be used for describing most of the prominent aspects of individuals' personalities. Nowadays many psychologists believe that the main structure of personality is shown by five general characteristics [1]. The most important individual factors influencing the academic achievement and progress include: Motivation, anxiety, studying methods, intelligence, physical factors, behavioral conflict, and emotional and psychological conditions, mental health, and happiness could be considered as the individual factors influencing the academic achievement and progress [2]. Psychologists believe that happiness is an influential factor in the academic achievement of university students. Lack of happiness and low self-confidence are considered as factors resulting in decreasing the quality of life and academic status of university students [3]. In a research Mirzay (2013) surveyed the correlation between the personality traits and the sports performance, and concluded that only the component of conscience has a positive and significant correlation with sports performance.

Everyone deals with these five factors and it is possible to draw their personality profiles which are consist of these five factors. Based on this model personality is composed of five main dimensions including Neurosis (N), Extraversion (E), Openness (O), Agreeableness (A), and Conscientiousness (C) [5]. Conard (2006) believes that reaching happiness and vivacity depends on positive impacts such as pleasure, comfort, self-confidence, joy, vivacity, excitement, sense of satisfaction with life, and absence of negative emotions such as anger, stress, and depression [7] Understanding the personality characteristics and their influence from different factors and their influence on different aspects are some of the important concerns of researchers and experts in fields related to psychology. Carte and et al (2011) stated that in the range of academic achievement the role of personality is much broader than the role of

intelligence. Ifcher and et al (2011) believe that happiness is learnable. Definitely it is possible to help people to achieve happiness through their own understanding, and it is possible to show them some techniques to use in their own life and make themselves happy and also happiness results in increasing learning in students.

According to the mentioned subject matters, the current research main question is that is there any significant correlation between the five-factor model of personality-happiness and the academic achievement of physical education university students? and could the happiness be an appropriate predictor for the physical education university students' academic achievement or not?

MATERIALS AND METHODS

The current research is a causal-comparative research and from the point of aim it is an applied research, and also the data are collected through field data collection. The required data are collected by the use of standard personality inventory of NEO-FFI (short revised form of inventory of big five personality factors) including 60 questions and Oxford Happiness Questionnaire including 29 questions and the GPA of two last semesters of university students will be collected from the sample. The surveyed indices in the NEO-FFI inventory include five personality factors of Neurosis, Extraversion, Openness, Agreeableness, and conscientiousness, and each of them are measured through 12 items and the academic achievement was calculated by the use of GPA of two last semesters of the university students.

The personality inventory used in this research is a standard inventory and it has been used several times in different internal researches. Also for surveying the reliability of the research the Cronbach's Alpha has been used and it was reported to be averagely 0.84. Furthermore, for measuring happiness this tools has the necessary validity and in addition to surveying its reliability in other researches and its high coefficient the reliability was surveyed in this research through Cronbach's Alpha and the coefficient was 0.88. Also in data analysis in addition to several indicators of descriptive statistics the Kolmogorov-Smirnoff test, correlation coefficient and linear regressions have been used through SPSS20 software.

RESULTS

Research descriptive results show that 52% of volunteers are female and 48% of them are male. 57% of the examinees have bachelor degrees. More than 78% of them are at the age range of 20-30 years old. Surveying the results also showed that more than 44% of the university students are enrolled in 1st to 6th semester. More than 36% of the examinees are second child (Figure 1). In terms of surveying the fathers' education level the studies showed that 45% of them had diploma and 55% of them had government jobs, and 54% of mothers were housewives. Also the mean score of university students' happiness was 44.80.

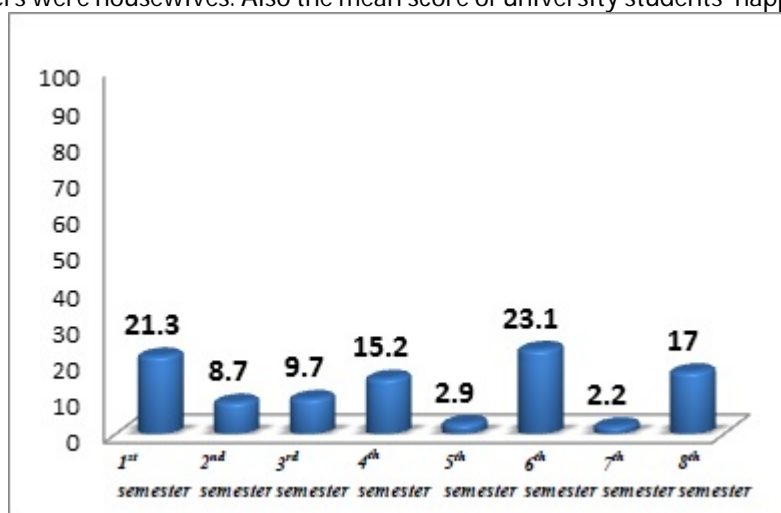


FIG. 1: Frequency distribution of participants in the research in terms of semesters

TABLE-1: Describing the research variables.

| Variable | Mean | SD | Minimum | Maximum |
|----------------------------|-------|------|---------|---------|
| GPA (Academic Achievement) | 16.36 | 1.52 | 11 | 19.18 |
| Neurosis | 20.98 | 6.63 | 1.00 | 39.00 |
| Extraversion | 28.02 | 6.61 | 4.00 | 41.00 |
| Openness | 24.11 | 4.63 | 11.00 | 60.00 |
| Agreeableness | 26.77 | 5.94 | 12.00 | 44.00 |

| | | | | |
|-------------------|-------|------|------|-------|
| Conscientiousness | 30.57 | 7.18 | 9.00 | 46.00 |
|-------------------|-------|------|------|-------|

Based on the table 1 regarding describing the research variables, the GPA (academic achievement) equals 16.36 with SD of 1.52, mean of neurosis equals 20.98 with SD of 6.63, mean score of extraversion equals 28.02 with SD of 6.61, mean score of openness equals 24.11 with SD of 4.63, mean score of agreeableness equals 26.77 with SD of 5.94, and mean score of conscientiousness equals 30.57 with SD of 7.18. The results of Kolmogorov-Smirnoff test indicate that data have a normal distribution and thus it is possible to use the Pearson correlation test and linear regression.

TABLE-2: Correlation between the five personality factors and the academic achievement of physical education university students.

| Variables | Correlation Coefficient | Significance Level | Conclusion |
|--|-------------------------|--------------------|------------------------------------|
| Neurosis and academic achievement | -0.049 | 0.020 | The correlation is not Significant |
| Extraversion and academic achievement | 0.417 | 0.000 | Significant correlation |
| Openness and academic achievement | 0.219 | 0.000 | Significant correlation |
| Agreeableness and academic achievement | 0.144 | 0.020 | Significant correlation |
| Conscientiousness and academic achievement | 0.148 | 0.019 | Significant correlation |

As it is observable in table 2, all 5 components of personality at error level 5% have a significant correlation with academic achievement of university students, and this significant correlation is negative for the component of neurosis and for the other components of personality it is a positive correlation.

TABLE-3: Regression coefficients related to predicting the academic achievement by the use of personality components.

| Model | Non-standard β | | Standard β | | t | Significance |
|--------------------------|----------------------|----------------|------------------|--|--------|--------------|
| | B | Standard error | β | | | |
| Fixed | 1.197 | .350 | | | 3.416 | .001 |
| Neurosis | .064 | .037 | .119 | | 1.704 | .090 |
| Extraversion | .215 | .054 | .318 | | 4.009 | .000 |
| Openness | .087 | .070 | .077 | | 1.255 | .211 |
| Agreeableness | -.026 | .062 | -.028 | | -.422 | .673 |
| Conscientiousness | -.055 | .059 | -.063 | | -.0933 | .352 |

According to the t coefficient resulted from regression, the only significant correlation at level $p=0.05$ is extraversion ($t=4.009$) and it could be said that the university students' extraversion has the power to predict the university students' academic achievement. Also according to the t coefficient resulted from regression for other variables this amount is not significant at level $p=0.05$, and it could be said that other variables do not have the power to predict the university students' academic achievement.

Research descriptive findings showed that 52% of volunteers are female and 48% of the volunteers are male. 57% of the examinees have bachelor degrees. More than 78% of them are at the age range of 20-30 years old. Surveying the data also showed that more than 44% of the university students are enrolled in 1st to 6th semester. More than 36% of the examinees are the second child (figure 1). In terms of surveying the fathers' education level the studies showed that 45% of them had diploma and 55% of them had government jobs, and 54% of mothers were housewives. Also the mean score of university students' happiness was 44.80.

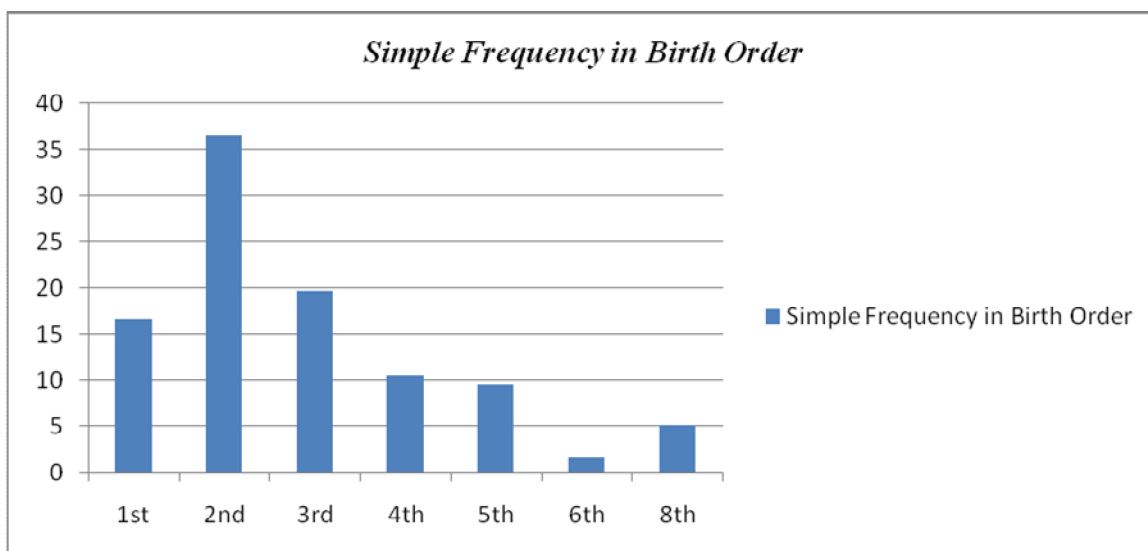


FIG. 2: Frequency distribution of research participants based on the birth order

Also the result of Kolmogorov-Smirnoff test indicates the normal distribution of data. Thus the Pearson correlation coefficient and the regression in parametric statistics have been used.

TABLE-4: Correlation test between happiness and academic achievement of university students

| Variables | No. (N) | Pearson correlation coefficient | Significance level | Conclusion |
|------------------------------------|---------|---------------------------------|--------------------|-------------------------|
| Happiness and academic achievement | 357 | 0.361 | 0.000 | Significant correlation |

As it is observable in table 1, a significant and positive correlation exists between the happiness and the academic achievement of physical education university students ($r = 0.361$). In other words by increasing the level of happiness in university students their academic achievement increases as well. Since the coefficient of determination of $R^2 = 0.130$ is achieved thus it could be said that 13% of changes in academic achievement could be explained through the variable of happiness. Regarding the amount of resulted non-standard coefficient from the regression in order to predict the academic achievement through happiness the regression equation is written as followed:

$$\text{Academic achievement} = (0.179) \text{ happiness} + 1.197$$

DISCUSSION

The aim of conducting this research was surveying the correlation between five-personality factors-happiness and the academic achievement in male and female physical education university students of National and Azad universities of Tehran. Results of different researches indicated the existence of a positive and negative correlation between the academic achievement and the five-personality factors. For instance Kappe and et al (2010) considered the possibility of correlation between these factors and the ability and academic achievement of students and they also considered the possibility of predicting dropout based on these factors. The current research findings are consistent with the researches of Farsidos and Vofield (2003) and AzimzadehParsi (2010). Results of Khodaei (2005) showed that academic achievement has no significant correlation and positive correlation with openness, extraversion, agreeableness, and conscientiousness and negative correlation with neurosis, and conscientiousness, and it managed to explain nearly 9% of variance of academic achievement in two steps. Research results of Laidra, Pullmann, & Allik (2007) showed a negative correlation between neurosis and academic achievement. In addition to that, the component of neurosis has a positive and significant correlation with variable f test anxiety, which is inconsistent with the current research results. Mitrut and et al (2011) believed that among the five main personality traits, conscientiousness is the most important factor for predicting the academic achievement.

Results showed that in addition to the positive and significant correlation between happiness and academic achievement of university students, happiness could also explain the 13% of changes of

academic achievement. Current research results are consistent with the findings of Conard, Pourmokhtar and et al (2007), and they are inconsistent with the research results of Shim (2012), Pahlavanzadeh and et al (2006). Studies showed that mental health has a positive and significant correlation with academic achievement, in a way that the more the mental health of students the more the academic achievement will be. Cahit (2012) also showed that students who have high life expectancy are more involved with assignments and they do their assignments better. Students who have high happiness could easily ask their teachers and ask for their assist when facing problems in their lessons [15].

Regarding the positive and significant correlation between the five personality factors-happiness and the academic achievement of university students and support of other researches the personality components play an undeniable role in different aspects of life and especially in academic achievement, it is suggested to provide programs at universities in order to reach improvement in happiness and vitality. Measuring other effective variables (intelligence, parenting practices, learning styles, perfectionism, enthusiasm) that were not possible in this research on the academic achievement, the results were only in order to detect the correlation between the personality factors and the academic achievement, thus conducting more comprehensive researches in broader samples seem necessary while it is recommended to use other standard tools for measuring happiness and comparing the results with this research.

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