The Effect of the Big Five Personality Traits and Parental Education Levels on EFL Learners' Achievement Scores

Shokouh Rashvand Semiyari[1*], Mahnaz Azad[2]

[1] Assistant Professor of TEFL, Faculty of Humanity Sciences, Islamic Azad University, East Tehran Branch

[2] Assistant Professor of TEFL, Faculty of Humanity Sciences, Islamic Azad University, East Tehran Branch

Abstract

Among the contributing factors to learners' performance, personality traits and levels of parents' education have been taken into account in this research. Accordingly, 440 learners, mostly pre-intermediate and a small number of intermediate EFL learners with the age range of 18-25, studying atIAU East Tehran Branch participated in this study. They were asked to complete the Big Five Personality Questionnaire as well as a socio-economic status (SES) sheet for their parents' education levels. First, the measurement models for investigating the impacts of personality traits and parental education levels on participants' achievement scores were drawn using the AMOS program. The data was analyzed by means of SEM through the CFA approach. The complete structural model for the Big Five personality factors, parents' education levels, and students' achievement scores fit well with the data while the measurement model for the levels of parents' education did not adequately fit the data. Open-mindedness had a significant negative impact, conscientiousness did not have any significant impact, extraversion had a significant positive effect, agreeableness did not have a significant positive effect, and neuroticism had a slight positive impact on students' achievement scores. These findings showed that personality traits can be used to predict students' achievement scores to some degree.

Keywords: Achievement scores; Agreeableness; Conscientiousness; Extraversion; Levels of parents' education; Neuroticism; Open-mindedness; Personality traits

INTRODUCTION

Choosing an appropriate teaching/learning technique which addresses all types of learners'needs/requirements has been always a big challenge to many teachers/instructors. Identifying learners'differences as well as factors that

*Corresponding Author's Email:
Sh_Rashvand@yahoo.com

may influence their performance might have therefore great importance.

Although cognitive ability is the most dominant factor as stated by Poropat (2009), there are other features that may affect learners' achievements as well(Furnham, Chamorro-Premuzic, & McDougall, 2003). Furnham and Chamorro-Premuzic (2004)stated that cognitive ability re-

veals what an individual is capable of doing whereas the personality traits anticipate what an individual will do in a novel situation. In fact, personality traits are used to describe the inside characters of the learners (McCrae & Costa, 1999)

Numerous studies have been carried out to investigate the associations between the personality traits and the learners' performance (Hakimi, Hejazi, & Lavasani, 2011; Poropat, 2009; Trapmann, Hell, Hirn, & Schuler, 2007), since the Big Five model proposed by McCrae and Costa (1999). Most of these studies showed that learners' success is not a mere intervention of their intelligence; personality traits are also at work. This paper made an effort to address the ambiguities why some learners are more successful in their academic achievements while others are not that much successful regardless of possessing an appropriate level of intelligence.

The Big Five Personality Traits and Learners' Achievements

The Big Five personality traits include five domain scales used as OCEAN acronym. These scales are Open-mindedness, Conscientiousness, Extraversion, Agreeableness, and Negative Emotionality (Neuroticism). These traits that were first proposed by McCrae and Costa (1999), capture a wide range of behaviors including sociability, compassion, responsibility, trust, productiveness, depression, etc. Many research which has been conducted in this area revealed that among all these scales, conscientiousness seemed to have the greatest share (Barrick, Mount, & Judge, 2001). The other personality traits highlighted slight or no effects on learners' achievements in many studies (Martin, Montgomery, & Saphian, 2006; Poropat, 2009). As quoted by McCrae and Costa (1999), personality traits are described as below; **Extraversion** deals with learners' sociability, assertiveness, and energy level. The extraverted learners are opposite the introverted, aloof, and taciturn ones. In a study done by Bidjerano and Dai (2007), it has been proved that social behaviors and peer learning are two distinct and decisive features represented via extraversion. Eysenck (1992)highlighted that learners who are extraverted are more likely to communicate and take part in team works and social activities. They are however weak at problem-solving tasks(Matthews, 1997).

Negative Emotionality(Neuroticism) refers to negative feelings including anxiety, depression, emotional volatility, etc. As Poropat (2009) proved, neuroticism is reversely related to academic performance in primary levels. In fact, learners who are emotionally more stable perform better in academic settings comparing to those who are easily aroused and are often temperamental.

Open-mindedness deals with learners' tendency to experience new challenges. These kind of learners welcome innovation and creativity. They are somehow curious to try new things. It takes some features including intellectual curiosity, aesthetic sensitivity, creative imagination, etc. into deep account.

Agreeableness deals with constructs of respectfulness, trust, co-cooperativeness, and so on. It is the extent to which one can be flexible, pleasant, and friendly toward others. These traits are in direct opposition with being inflexible, unpleasant, and disagreeable(Noftle & Robins, 2007). This trait enhances learning in most cases (Poropat, 2014).

Conscientiousness is related to organization, responsibility, productiveness, etc. This feature seems to have the greatest share in academic (Barrick et al., 2001; Hurtz & Donovan, 2000). Steel (2007) outlines two dominant features that are usually associated with this trait; goal-setting and sustained efforts. These feature are usually led to academic success.

In order to determine whether these traits have any significant impacts on learners' achievement scores, the following research questions were raised:

1. Is there any relationship between extraversion and learners' achievement scores?

2. Is there any relationship between neuroticism and learners' achievement scores?

3. Is there any relationship between open-mindedness and learners' achievement scores?

4. Is there any relationship between agreeableness and learners' achievement scores?

5. Is there any relationship between conscientiousness and learners' achievement scores?

Parental Education

It seems that the levels of parents' education have an important role in learners' academic success. Bandura (1997) states that children adopt socially accepted behaviors by observing and interacting with most important people in their lives. Such social cognitive theory implies that parents have the authority to present positive attitudes toward their children learning. Many studies done in this area showed the strong correlation between parental education levels and learners' academic success (Fan & Chen, 2001; Houtenville & Conway, 2008; Jeynes, 2003; 2007).

Learners' success depends upon various factors among them levels of parents' education seem to have a substantial role. Studies show socio-economic status (SES) of parents is the most appropriate predictor of learners' achievements (Coleman et al., 1981). Parental education seems to be the most stable dimension of SES as it is usually emerged at early ages and remains the same and doesn't vary in the course of time (Sirin, 2005). Cornell and Grossberg (1987) emphasize the key role family typically play on their children's academic success. Thompson, Seaborn, Alexander, and Entwisle (1988) put further emphasis on the role of mothers' level of education on children's future prospects and preferences. Krashen (2003) confirms that learners whose parents have higher levels of education get higher positions in society comparing to those who have no or less educated parents. Undoubtedly educated parents help their children more in

school tasks and activities (Chowa, Masa, & Tucker, 2013). Dave and Dave (1971) proved that the more successful learners have high-educated parents in most of the cases. Okagaki and Frensch (1998) said that parents' education is related to learners' achievement in an indirect rather than a direct way. Therefore this study aimed at finding if there was any relationship between the levels of parental education and learners' achievement scores in an Iranian context. To that end, the following research question is raised as well:

6. Is there any significant relationship between parental education levels and learners' achievement scores?

The Present Study

Empirical evidence confirms that both personality traits and levels of parental education have key roles in learners' academic success. Thus this study aimed at investigating a probable mediating role of parental education levels in the relationship between personality traits and learners' achievement scores. The researchers of this study were curious to know how and to what degree learners' personality traits and their parents' educational levels contribute to their final exam achievement scores.

METHOD
Participants

The data were collected from 440 university male and female students with different fields of study. There were 169 female and 271 male participants mostly at pre-intermediate and a small number at intermediate levels. Their age range was between 18~25 years old. They were ESP students at IAU East Tehran - Branch. Participants were asked to complete the Big Five Personality Questionnaire as well as a SES sheet in general and for their parents' education levels in particular.

MATERIALS

The Big Five Inventory-2 (BFI-2) by Soto and John (2017)consisting of 60 items was used. Each personality trait was elicited through 12

items. Needless to say some items were intentionally reversed to check participants' true opinions. Likert scales ranging from strongly disagree (1) to totally agree (6) were used in this questionnaire. Concurrent, construct, convergent, divergent, incremental, and predictive validity of this questionnaire have been already confirmed by enormous number of studies in the past (Chamorro-Premuzic & Furnham, 2003). This inventory checked extraversion, neuroticism, open-mindedness, agreeableness, and conscientiousness. Biographic data including age, degree of familiarity with English language, parents' occupations/education levels, the region they live, etc. were asked as well. From among these socio-economic status features, levels of parents' education were taken into account. The achievement scores of the students were also obtained based on their final exam on General English lesson. The exam included three main sections including structure and written expressions, vocabulary, and reading comprehension.

The data for the personality traits were collected at the middle of the semester allowing the researchers to gain an appropriate knowledge of the students. The demographic data in general and for parents' education levels in particular, however were gathered at the end of the semester in order to allow the students to have full trust over the researchers. The Participants were assured that their personal information would be kept confidential and would be only used for research and not for any other purposes. The data for the participants' levels of performance were obtained at the end of the semester through their final exam scores (that is, achievement test).

Once all the required data were collected, they were transformed into codes and then entered into SPSS program. Then the measurement models have been drawn using AMOS program once for the impacts of personality traits and once for the effects of parental education levels on participants' achievement scores. Confirmatory Factor Analysis (CFA) using Structural Equation Modeling (SEM) was used to answer the research questions. The complete structural model for the Big Five personality factors, parents' education levels and students' achievement scores fit well. There were a number of significant pathways between the Big Five personality traits and students' achievement scores;

- Open-mindedness had a significant negative impact,
- Conscientiousness had a negative yet insignificant impact,
- Extraversion had a significant positive effect,
- Agreeableness didn't have a significant positive effect,
- Neuroticism had a slight positive impact on students' achievement scores.

These findings show that personality traits can be used to predict students' achievement scores to some degree. In other words, students' achievement scores are influenced by their personality features to some extent. Such differences can also show themselves in academic settings.

RESULTS AND DISCUSSION
Measurement Models
The main objective of the measurement models was to make a connection between independent and dependent variables via CFA. Thus two measurement models were drawn in AMOS program to yield results for the analysis. Figures 1 and 2, depict these measurement models;
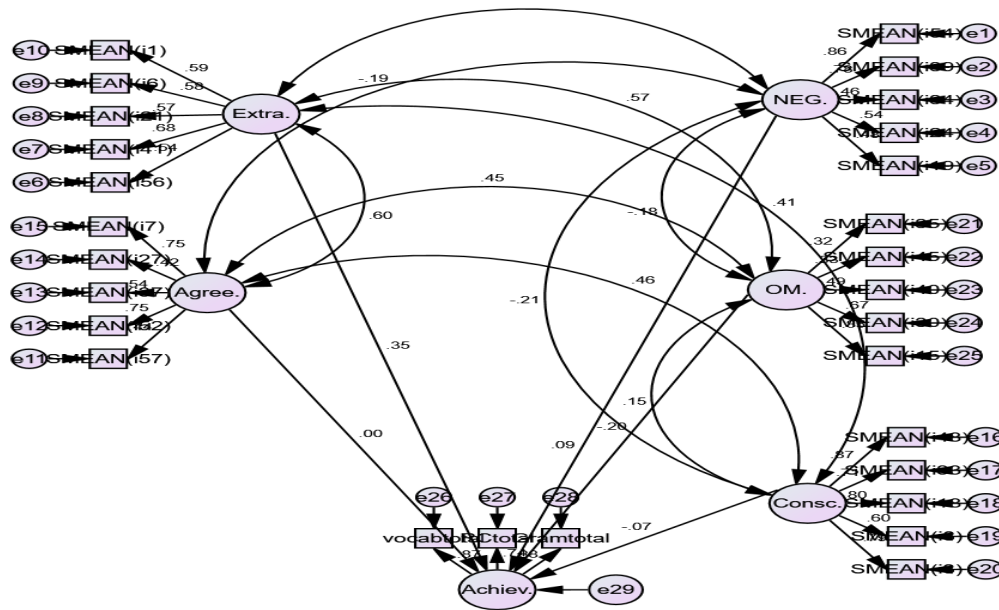
Figure 1 The Measurement Model to investigate the effects of the Big Five Personality Traits on Students'
Achievement Scores

Note: This model does not determine the correlational relationships between Personality Traits and Students'
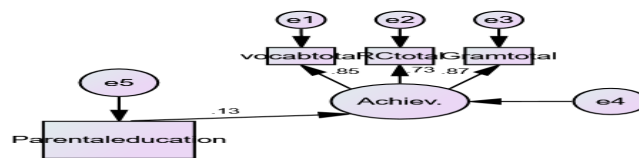Achievement Scores.

Figure 2 The Measurement Model to investigate the effects of parents' education levels on Students'
achievement scores

Note: This model does not determine the correlational relationships between Parents' Education Levels
and Students' Achievement Scores.

Estimation of the Goodness-of-Fit Statistics for each of the measurement model indicated that there was acceptable model/data fit for each of the measurement model (that is, personality traits and parental education levels). Table 1 demonstrates the fit indices for the model;

Table 1.

Fit Statistics of the Measurement Models

	x^2 (CMIN/DF)	df	RMSEA	CFI	NNFI (TLI)
Personality Traits	2.717	336	.061	.864	.835
Parental Education Levels	1.892	2	.044	.997	.986
Students' Achievement Scores	0	Saturated Saturated		Saturated	Saturated

Complete Structural Model

In order to specify the model fit and to determine the associations between observed and latent variables, the full structural model was drawn in AMOS to yield results for the analysis. Figure 3 demonstrates the complete structural model;
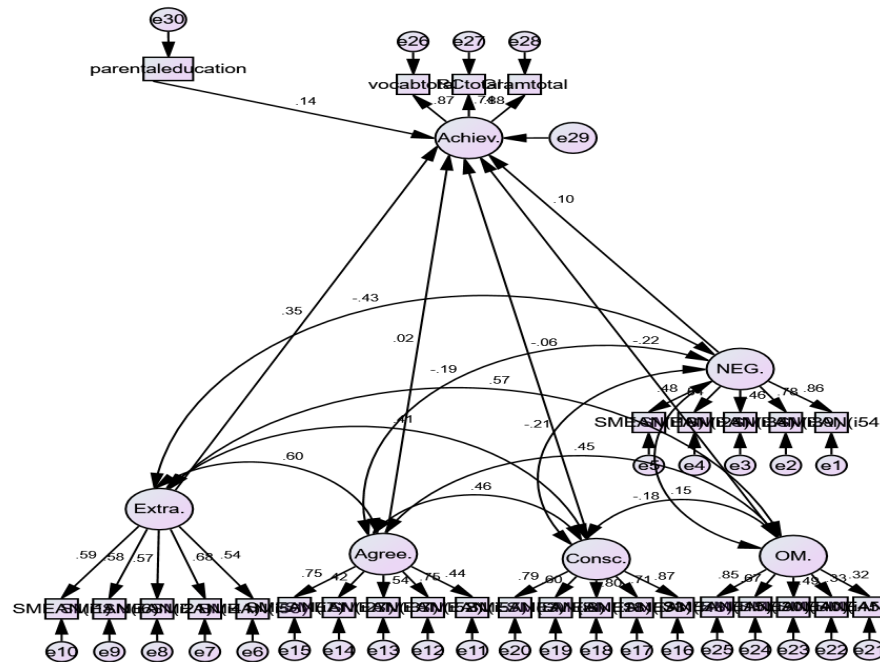

Figure 3 The Full Structural Model to investigate the effects of Big Five Personality Traits and parents' education levels on Students' achievement scores

Note: This model does not determine the correlational relationships between Personality Traits, Parents' Education Levels and Students' Achievement Scores

Table 2 demonstrates the fit indices for the full structural model;

Table 2.

Fit Statistics of the Structural Model

	x^2 (CMIN/DF)	df	RMSEA	CFI	NNFI (TLI)
Personality Traits, Parental Education Levels and Students' Achievement Scores	2.626	363	.060	.861	.834

While there is no fixed and/or agreed-upon guidelines with respect to which fit indices are necessary to be reported (Khine, 2013) the researchers followed Kashy, Donnellan, Ackerman, and Russell (2009)and Widaman (2010) recommendations on reporting the following fit indices to examine the model fitness;

- Chi squared (x^2) test (CMIN/DF)
- The Comparative Fit Index (CFI)
- The Tucker-Lewis Index (TLI)
- The Root Mean Square Error of Approximation (RMSEA)

The structural model showed good fit to the data;

- Chi square = 953.207, df = 363, p = .000 (CMIN/DF = 2.626)
- CFI = 0.861
- TLI = 0.834
- RMSEA = 0.060 (90% CI: 0.055-0.064)

As it is illustrated, the findings of a 6 factor CFA model revealed that open-mindedness, conscientiousness, extraversion, agreeableness, neuroticism and parents' levels of education showed acceptable fit with the data. Although the chi squared test of exact fit was unsatisfactory ($x^2 =$ 953.2; CMIN/DF = 2.626; above the desired level of 1.0), the CFI was below the desired level 0.90 as already confirmed by Hu and Bentler (1999), and the TLI was below the acceptable levels 0.90 as highlighted by Lomax and Schumacker (2004), yet they are close to the acceptable levels. The RMSEA test of close fit was well below the threshold of .08. As stated by Hu and Bentler (1999) values of .06 or less show good model fit. Values higher than .10 indicate poor model fit (Brown & Cudeck, 1993).

This study investigated the relationships between personality traits, levels of parents' education and students' achievement scores. SEM analyses showed that among five personality traits, extraversion and open-mindedness had the greatest shares and were statistically significant while three remaining factors had insignificant and/or very small effects. The investigation of levels of parents' education as another independent variable also showed that although some ef-

fect exist, it was not considerable. It can be concluded that students who were extroverted and open-minded performed better and achieved relatively high scores. This is due to the fact that extraversion is closely related to assertiveness and open-mindedness refers to intellectual curiosity. This is in line with Vermetten, Lodewijks, and Vermunt (2001) who confirmed open-mindedness can lead to critical thinking and it is different from absenteeism (Tempelaar, Gijselaers, van-der-Loeff, & Nijhuis, 2007).

Moreover, Bandura, Caprara, Barbaranelli, Gerbino, and Pastorelli (2003)found a negative correlation between academic achievements measured by GPA and energy level as assessed by the Big Five Questionnaire for children. They showed a positive correlation between GPA and intellect/openness however. De Raad and Schouwenburg (1996) also demonstrated that conscientiousness implying organization, responsibility, and productiveness is the most decisive factor in school context. Laidra, Pullmann, and Allik (2007) in their study proved that conscientiousness is significantly correlated with GPA. Besides it was shown that open-mindedness as another personality trait dealing with intellectual curiosity, creative imagination, and aesthetic is consistently used to predict academic achievement through all grades (Costa, 1992). Bidjerano and Dai (2007) indicated that extraversion reinforces social behaviors and subsequently leads to better learning. Ackerman and Heggestad (1997) believed that open-mindedness did not relate to learners' academic achievements. Vermetten et al. (2001) found a positive relationship between agreeableness and academic performance. Barrick et al. (2001) showed that conscientiousness is highly related to individuals' performance. Chamorro-Premuzic and Furnham (2008) confirmed that open-mindedness caused deep learning in most of cases and thus led to higher grades and better performance accordingly.

Our findings are not in line with Ruisel and Halama (2007) study though. They indicated that conscientiousness affect positively academic achievement and work performance while in this

study its effect was quite slight and negligible. The researchers found that open-mindedness is positively related to students' achievement scores. In fact, university students who are open to experiences and prefer intellectual curiosity and creative imagination, achieved higher scores at the end of the semester. As Hazrati, Tayarani-Rad, and Torabi (2012) claim, open-mindedness anticipates intrinsic motivation and thus leads to better academic achievements. The main reason is that the students who are open to new experiences, tend to be intellectually curious, intelligent, insightful, aesthetic, and interested. That's why they usually outperform at educational settings and are academically more successful.

With reference to parents' education levels, our findings are not in harmony with Watson (1986). He showed in his study that the high level educated parents are influential in the academic performance of their children. On the contrary and similar to this study, Hawkes (1995) showed that parents' education levels did not have any significant impact on students' academic achievements. Likewise Oh-Hwang (1994) indicated that parents' educational levels did not have any impacts on students' academic achievements. The reason as demonstrated by DeBaryshe, Patterson, and Capaldi (1993) is that parental education is highly related to styles of parenting and has nothing to do with children academic performance.

The findings of the present study may have some implications for predicting and increasing students' achievement scores. As this study demonstrates, extraversion and open-mindedness have significant effects on students' achievement scores. It can be used to describe why learners who are extroverted and open-minded obtain higher scores in comparison with those who do not have such features. This suggests that personality traits need to be investigated from a deeper perspective. Teachers/instructors can also use these findings as an important issue to develop and adjust their syllabi/teaching plans by emphasizing the ways/methods to improve students'

extraversion, open-mindedness, and subsequently their achievement scores.

The present study enjoys some strengths and weaknesses that need to be taken into account while reporting the results;
- The researchers used final scores of students at the end of the semester, while teachers' formative assessment might be more reliable, valid and less biased.
- Self-report data for both the Big Five personality traits and parental education levels are contaminated by students' bias and social popularity as already stated by Podsakoff, MacKenzie, Lee, and Podsakoff (2003). To reduce these effects, participants were repeatedly assured that the data would be kept confidential and used only for the study purposes.
- Researchers asked the participants to feedback on their personality traits, provide their demographic data including parents' education levels, and finally take part in achievement test at different time intervals to reduce variances as much as possible.
- The students' reluctance to tell the truth and choose/provide the unreal options regarding both their personality traits and demographic data may limit the generalizability of the findings. As Blickle (1996) proposed, personality traits facilitate learning behavior. These traits have thus critical roles in learners' academic lives to pursue or give up the educational courses(Darling, 2008).

CONCLUSION
With respect to study background, data collected and statistical analyses, following results were obtained; extraversion and open-mindedness revealed to have the most effects on learners' achievement scores. Whereas all the other traits including conscientiousness, agreeableness, and negative emotionality (neuroticism) as well as the other independent variable under study, that is, parents' education levels did not have any con-

siderable impacts on learners' achievement scores.

This study can therefore enhance our understanding of the relationships between extraversion, open-mindedness, and students' achievement scores. For future study, these results should be taken into account with respect to other types of performance including arts, music, oral representation, different type of tasks including story-telling, problem solving, etc.

As far as parents' education levels are concerned, as already confirmed by Darling (2008), schools and organizations in charge need to focus on the parents' awareness plans in their educational policies. As these plans usually lead to better achievement scores. Meanwhile following research questions may be worth heeding for next studies;

- Whether (or not) parents pass on their aptitude/intelligence to their children?
- To what degree home environment/society can be influential?
- To what extent will the results be varied if other intervening factors like students' gender, parents' income, area of living, etc. are taken into account?

In addition to personality traits and parents' education levels, other contributing factors to learners' achievement including aptitude, learners' beliefs, learning styles, etc. can be investigated in future studies.

This research was an attempt to uncover the effects of the Big Five personality traits and parental education levels on students' achievement scores. The findings of this research would contribute to the significance of developing educational programs according to students' personality traits in general and raising students' consciousness to their personal features in particular. The results of this study can also enhance our understanding about the important role the parental education levels can play in students' academic success with social cognitive orientation.

References

Ackerman, P., L., & Heggestad, E., D. (1997). Intelligence, personality, and interests: Evidence for overlapping traits. *121*(2), 219.

Bandura, A. (1997). *Self-efficacy: The exercise of control*. Freeman: New York.

Bandura, A., Caprara, G., Vittori,, Barbaranelli, C., Gerbino, M., & Pastorelli, C. (2003). Role of affective self- regulatory efficacy in diverse spheres of psychosocial functioning. *74*(3), 769-782.

Barrick, M., R., Mount, M., K., & Judge, T., A. (2001). Personality and performance at the beginning of the new millennium: What do we know and where do we go next? *, 9*(1- 2), 9-30.

Bidjerano, T., & Dai, D., Yun, . (2007). The relationship between the big-five model of personality and self-regulated learning strategies. *17*(1), 69-81.

Blickle, G. (1996). Personality traits, learning stratigies, and performance. *10*(5), 337-352.

Brown, M., W., & Cudeck, R. (1993). Alternative ways of assessing model fit. In K. A. Bollen & J. S. Long (Eds.), *Testing structural equation models*. Newbury Park: Sage.

Chamorro-Premuzic, T., & Furnham, A. (2003). Personality predicts academic performance: Evidence from two longitudinal university samples. *37*(4), 319-338.

Chamorro-Premuzic, T., & Furnham, A. (2008). Personality, intelligence and approaches to learning as predictors of academic performance. *44*(7), 1596-1603.

Chowa, G., Masa, R., D., & Tucker, J. (2013). The effects of parental involvement on academic performance of Ghanaian youth: Testing measurement and relationships using structural equation modeling. *35*(12), 2020-2030.

Coleman, J. S., Campbell, E. Q., Hobson, C. J., McPartland, J., Mood, A. M., & Weinfeld, F. D. (1981). *Equality of Educational Opportunity* Washington, D.C.: Government Printing Office. .

Cornell, D., G., & Grossberg, I., W. (1987). Family environment and personality adjustment in gifted program children. *31*(2), 59-64.

Costa, P., T. . (1992). *Revised NEO personality inventory and NEO five-factor inventory*. Florida: Psychological Assessment Resources, Inc. .

Darling, S. (2008). Family must be a part of the solution in closing the achievement gap. *81*(6), 245-246.

Dave, P., & Dave, J. (1971). *Socio-economic environment as related to the non-verbal intelligence of rank and failed student*. Individual Study: university of Mysco-re.

De Raad, B., & Schouwenburg, H., C. (1996). Personality in learning and education: A review. *10*(5), 303-336.

DeBaryshe, B., D., Patterson, G., R., & Capaldi, D., M. (1993). A performance model for academic achievement in early adolescent boys. *29*(5), 795.

Eysenck, H., J. . (1992). Personality and education: The influence of extraversion, neuroticism and psychoticism.

Fan, X., & Chen, M. (2001). Parental involvement and students' academic achievement: A meta-analysis. *13*(1), 1-22.

Furnham, A., & Chamorro-Premuzic, T. (2004). Personality and intelligence as predictors of statistics examination grades. *37*(5), 943-955.

Furnham, A., Chamorro-Premuzic, T., s, & McDougall, F. (2003). Personality, cognitive ability, and beliefs about intelligence as predictors of academic performance. *14*(1), 47-64.

Hakimi, S., Hejazi, E., & Lavasani, M., Gholamali,. (2011). The relationships

between personality traits and students' academic achievement. *29*, 836-845.

Hawkes, N. (1995). Some correlates of success in second language learning in some Ghanaian Schools. 125-140.

Hazrati, V., Asghar,, Tayarani-Rad, A., & Torabi, S., Saeed,. (2012). The effect of personality traits on academic performance: The mediating role of academic motivation. *32*, 367-371.

Houtenville, A., J., & Conway, K., Smith,. (2008). Parental effort, school resources, and student achievement. *43*(2), 437-453.

Hu, L., tze,, & Bentler, P., M. (1999). Cutoff criteria for fit indexes in covariance structure analysis: Conventional criteria versus new alternatives. *6*(1), 1-55.

Hurtz, G., M., & Donovan, J., J. (2000). Personality and job performance: The Big Five revisited. *85*(6), 869.

Jeynes, W., H. (2003). A meta-analysis: The effects of parental involvement on minority children's academic achievement. *35*(2), 202-218.

Jeynes, W., H. (2007). The relationship between parental involvement and urban secondary school student academic achievement: A meta-analysis. *42*(1), 82-110.

Kashy, D., A., Donnellan, M. B., Ackerman, R., A., & Russell, D., W. (2009). Reporting and interpreting research in PSPB: Practices, principles, and pragmatics. *35*(9), 1131-1142.

Khine, M., Swe,. (2013). *Application of structural equation modeling in educational research and practice*. The Netherlands: Sense Publishers.

Krashen, S., D. (2003). Explorations in language acquisition and use. In: Heinemann Portsmouth, NH.

Laidra, K., Pullmann, H., & Allik, J. (2007). Personality and intelligence as predictors of academic achievement: A cross-sectional study from elementary to secondary school. *42*(3), 441-451.

Lomax, R., G., & Schumacker, R., E. (2004). *A beginner's guide to structural equation modeling*: psychology press.

Martin, J., H., Montgomery, R., L., & Saphian, D. (2006). Personality, achievement test scores, and high school percentile as predictors of academic performance across four years of coursework. *40*(4), 424-431.

Matthews, G. (1997). Extraversion, emotion and performance: A cognitive-adaptive model. *124*, 399-442.

McCrae, R., R., & Costa, P., T. . (1999). A five-factor theory of personality. In L. A. Pervin & O. P. John (Eds.), *Handbook of Personality* (2 ed.). New York: The Guilford press.

Noftle, E., E., & Robins, R., W. (2007). Personality predictors of academic outcomes: big five correlates of GPA and SAT scores. *93*(1), 116-130.

Oh-Hwang, Y. (1994). *A cross-cultural study: Linkages among intelligence, psychosocial maturity, parenting practices, and academic achievement of adolescents.* (Unpublished Doctoral dissertation), Purdue University, Lafayette, IN. ,

Okagaki, L., & Frensch, P., A. (1998). Parenting and children's school achievement: A multiethnic perspective. *35*(1), 123-144.

Podsakoff, P., M., MacKenzie, S., B., Lee, J.-Y., & Podsakoff, N., P. (2003). Common method biases in behavioral research: A critical review of the literature and recommended remedies. *88*(5), 879.

Poropat, A., E. (2009). A meta-analysis of the five-factor model of personality and academic performance. *135*(2), 322-338.

Poropa, J. (2014). Other-rated personality and academic performance: Evidence and implications. *34*, 24-32.

Ruisel, I., & Halama, P. (2007). NEO päťfaktorový osobnostný inventár.

Sirin, S., R. (2005). Socioeconomic status and academic achievement: A meta-analytic

review of research. *75*(3), 417-453.

Soto, C., J., & John, O., P. . (2017). The next Big Five Inventory (BFI-2): Developing and assessing a hierarchical model with 15 facets to enhance bandwidth, fidelity, and predictive power. *Journal of Personality and Social Psychology, 113*(1), 117-123.

Steel, P. (2007). The nature of procrastination: A meta-analytic and theoretical review of quintessential self-regulatory failure. *133*(1), 65.

Tempelaar, D., T., Gijselaers, W., H., van-der-Loeff, S., Schim,, & Nijhuis, J., F. H. (2007). A structural equation model analyzing the relationship of student achievement motivations and personality factors in a range of academic subject-matter areas. *32*(1), 105-131.

Thompson, M., Seaborn,, Alexander, K., L., & Entwisle, D., R. (1988). Household composition, parental expectations, and school achievement. *67*(2), 424-451.

Trapmann, S., Hell, B., Hirn, J.-O., W., & Schuler, H. (2007). Meta-analysis of the relationship between the Big Five and academic success at university. *215*(2), 132-151.

Vermetten, Y., J., Lodewijks, H., G., & Vermunt, J., D. (2001). The role of personality traits and goal orientations in strategy use. *26*(2), 149-170.

Watson, J. C. (1986). Validation of certain background variables as prediction. *Academic Achievement Journal of Education Research, 1*, 26-29.

Widaman, K. F. (2010). Multitrait-multimethod analysis. In G. R. Hancock & R. O. Mueller (Eds.), *The reviewer's guide to quantitative methods in the social sciences* (pp. 299-314). New York: Routledge.

Biodata
Dr Shokouh Rashvand Semiyari is PhD of TEFL, a full-time faculty member of the TEFL Department, Islamic Azad University, East Tehran Branch, Iran. She has published several Books and research articles on different issues of language teaching and testing/assessment. Her fields of interest are language testing/assessment and psycholinguistics.
Email: Sh_Rashvand@yahoo.com

Dr Mahnaz Azad is PhD of TEFL, a full time faculty member of the TEFL Department, Islamic Azad University, East Tehran Branch, Iran. She has published several research articles on different issues of language teaching and testing/assessment. Her fields of interest are language testing/assessment and multi-media language learning.
Email: Mahnaz.azad@yahoo.com