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Predicting Senior Secondary Schools Teachers' Social Intelligence by HEXACO-PI-R personality Traits based on Age Groups

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Abstract

The present study examined the relationship between social intelligence and personality traits among senior secondary schools teachers in Iran based on a selected demographic variable (age). In this research, 198 teachers were chosen using random sampling. They completed Tromsø Social Intelligence Scale (TSIS) and HEXACO- PI-R personality traits questionnaire. Data were analyzed using Pearson correlation coefficients by means of SPSS version17. The findings of the study showed that there were significant differences between teachers' social intelligence and their age groups. Further, there were positive and significant relationships between teachers' social intelligence and six personality traits (honesty-humility, emotionality, extraversion, agreeableness (versus anger), conscientiousness and openness to experience). Also multiple regressions show that the three personality traits (extroversion, conscientiousness and openness to experience) explain 0.40 variance of social intelligence. It was concluded that personality traits are factors that have a considerable role in people social intelligence.

Key Words: HEX ACO- PI-R Personality Traits, Social Intelligence, Teachers' Age Groups, Secondary School

Introduction

For a long time it has been a prevailing thought for psychologists that some people with specific personality traits are more intelligent than others, so have people perhaps. Describing introverts mental characteristics, Eysenck states that introverts are more

intelligent than extroverts (Eysenck 1971). In his point of view excellent expressiveness, great care in handling different affaires and conscientiousness are other introverts characteristics which are in accordance with high IQ. Also Yung describes introverts in terms of superior mental factors and elements. He gives superiority to introverts and

extroverts in comparison with neurotics in terms of intelligence, self-confidence and concentration. While intelligence and personality have been considered as two partially different constructs in individual differences in other studies, so many studies have come to the conclusion that some predictable relations can be made between these two constructs (Ackermann and Heggstad, 1997; Austin et al, 2002; Collis & Messick, 2001).

Social intelligence is a part of human personality, and personality provides the context in which social intelligence operates. Edward Thorndike defines social intelligence as "the ability to understand and manage men and women, boys and girls, to act wisely in human relations" (Thorndike and Stein 1937, P. 228). A simple description of social intelligence is: "... the ability to get along well with others and to get them to cooperate with you" (Thorndike 1920). One concept of social intelligence referred to it as the "ability to read nonverbal cues or make accurate social inferences" and "one's ability to accomplish relevant objectives in specific social settings" (Brown & Anthony, 1990, p. 197; Ford & Tisak, 1983) Albrecht (2006) claimed, the teachers whose behaviors are associated with high social intelligence, stress the value of collaboration. Similarly, there is a need for educational system which equips the students to state their opinions obviously in order to make themselves understood, and to try to understand the others before they show any reactions to the behavior.

Zirkel (2000) stated social intelligence is closely

related to one's own, personality and individual behavior. Those with social intelligence are fully aware of themselves and understand their environment. In general, some research showed the relation between extroversion and intelligence (Austin et al, 2002). However, some studies found a negative relation between Extroversion and intelligence (Furnham, Forde & Cotter, 1998; Moutafi, Furnham, & Crump, 2003). Also some investigations showed a significant negative relation between Neuroticism and intelligence (Ackermann & Heggstad,1997; Kyllonen, 1997; Moutafi et al, 2003). In other inquiries researchers have surveyed relation between different types of Intelligence with personality traits which turned out to have a significant relation between fluid intelligence and openness to experience (Chamorro-Premuzic, Moutafi & Furnham, 2005).

Various studies have found significant differences between openness to experience and general intelligence (Austin et al, 2002; Kyllonen, 1997, and Moutafi, Furnham & Crump, 2003). Also some studies have shown a significant positive relation between emotional intelligence with extroversion, openness to experience, agreeableness and conscientiousness, while a significant negative relation with neuroticism (Dawda & Hart, 2000; Davies, Stankov & Roberts, 1998; Newsome, Day & Catano, 2000; Palmer, Donaldson & Stough, 2002). Several models of emotional intelligence are closely related with personality theory (McCrae et al., 2000). All of the Big Five personality traits (Agreeableness, Openness, Extraversion, Neuroticism, and Conscientiousness) have

been found to correlate at least moderately and low with emotional intelligence (McCrae, 2000).

The basic premise behind the trait approach lies in an orderly classification, or an attempt to establish clear categories of human behavior. The latter reflects the multitude and perpetuity of human characteristics. In a broader sense, Pervin and John (2001) an agreed upon assumption that is common to all trait models, traits can be thought of simply as the fabric of personality. Thus, defined by Pervin and John, traits are internal mechanisms responsible for the consistency in behavior over time. As Allport (1937, as cited in Pervin & John, 2001) reasoned, a particular trait sets up an individual for learned response-patterns that may, nevertheless, still be context dependent. With regard to explain HEXACO Personality Inventory, Ashton and Lee (2001) and Lee and Ashton (2004) began construction to this inventory in the year 2000. The resulting version of the HEXACO Personality Inventory consisted of six broad factor scales, each subsuming four narrower facet scales (Lee & Ashton, 2007)

In relationship with the big five personality factors, in early research studies, based on analyses of smaller sets of English-language personality-descriptive adjectives, only five factors were consistently found (Goldberg 1993). These factors, which were called the “Big Five”, became widely used in personality research. Three of the Big Five factors were similar to the extraversion, conscientiousness, and openness to experience. Two other Big Five factors, called agreeableness and

neuroticism (with the opposite pole of the latter factor also known as Emotional Stability), were similar to the agreeableness and emotionality factors described above, but with some differences in the content of the factors. (For example, characteristics related to quick temper are associated with Neuroticism or low emotional stability in the Big Five framework, but with low Agreeableness in the HEXACO framework. Therefore, Big Five agreeableness and HEXACO agreeableness are not identical.) The Big Five factors do not include an honesty-humility factor, but some of the characteristics belonging to honesty-humility are treated as belonging to the Big Five agreeableness factor. Although early investigations found only the Big Five factors, more recent studies conducted in various languages and with larger sets of adjectives were found to recover six factors (Ashton & Lee, 2007). The names of four of the HEXACO factors (all except honesty-humility and emotionality) were adopted from existing labels for the Big Five factors. Factor names were selected on the basis of the common meaning of the characteristics within each factor.

With regard to differences in social intelligence by age, Thorndike (1920) stated social intelligence increases with age and experience of a person. Social intelligence involves a number of different capabilities, special social habits, and attitudes (Thorndike & Stein, 1937). Some people argue that it is a multidimensional component that does not necessarily apply across all situations (Ford & Tisak, 1983). In this study, the researcher used a multifaceted theory of social intelligence

(social information processing, social skills and social awareness) as it facilitated the understanding of social behavior in the academic settings (Silvera, Martinussen & Dahl, 2001). Many research studies have been done on the relationship between different types of intelligence with personality, but there is no investigation in social subject with teachers' personality traits. The present study was designed to assess to associations between teachers' *HEXACO-PI-R* personality traits and social intelligence in senior secondary schools in Iran. It seeks to determine whether higher levels of personality traits can be related to a higher level of social intelligence experienced. The specific objectives of the study involve which traits of teachers' personality would be able to predict their social intelligence and teachers' age groups would make any difference in their level of social intelligence.

Methodology

Research Design

Quantitative approach is applied in this study. This study is designed to use a descriptive correlational design to examine the predicting teachers' social intelligence by *HEXACO-PI-R* personality traits (honesty-humility, emotionality, extraversion, agreeableness (versus anger), conscientiousness, openness to experience).

Sample

This study employed in school teachers in Iran. The target of population for this study was senior secondary schools teachers in Iran. This study employed the random sampling procedures. To have the required number of

samples, 11 secondary schools need to be selected for the study. Based on this method of identifying the samples needed, 198 teachers were chosen. Moreover, a sample size of 198 based on Cohen table (1992) is sufficient to answer all the research questions that required the use of mean and standard deviation, Pearson "r", ANOVA and multiple regressions.

Measures

Two instruments were used to collect data from the respondents. They include:

HEXACO-PI-R Personality Scale; Recently, researchers have developed a shorter version of the HEXACO-PI-R in response to demand for an instrument that would make it possible to assess personality within a very short time (Ashton & Lee, 2009). In constructing the HEXACO- PI-R, they decided that each of the six scales contains 10 items that collectively cover a wide range of content, with at least two items representing each of the four narrow traits of each scale in the longer HEXACO-PI-R, (Lee, Ashton, 2004). The instrument assesses the six major dimensions of personality: honesty-humility, emotionality, extraversion, agreeableness (versus anger), conscientiousness, openness to experience. After selecting the subset of 60 items, we examined the HEXACO- PI-R in samples of the study was senior secondary schools teachers and found that the instrument showed the desired properties. Participants a 5-point agreement scale on which the options ranged from "completely agree"= 5, to "completely disagree"=1, (Lee, Ogunfowora, Ashton 2005). In this research the scale has a Cronbach alpha of .086.

Social Intelligence; Silvera, Martinussen and Dahl (2001) constructed a scale for the assessment of social intelligence, the Tromsø Social Intelligence Scale (TSIS). In this questionnaire, after recoding items that were negatively worded, an Exploratory Factor Analysis (EFA) using principal components analysis and varimax rotation was conducted on the 103 preliminary TSIS items. This solution explained a total of 30% of the variance in the original item set. Based on this result, items were selected according to the following criteria: (a) a minimum factor loading of 0.45 on one of the three factors and a maximum cross-loading of 0.35 on the other factors; and (b) a maximum correlation of 0.30 with the MCSD (Marlowe-Crowne Social Desirability Scale). In addition, it was agreed that an equal number of items would be selected to represent each factor. This resulted in the selection of 21 items. The scale has a Cronbach alpha of 0.88.

Data Analyses

SPSS version 17 was used to analyze the data. Descriptive statistics such as; mean, standard deviation, percentage and ANOVA was used to describe the level of teachers' social intelligence and age groups. Pearson correlation was used to examine the association between teachers' personality traits and their social intelligence. Enter method multiple regression analysis was used in order to predict and explain the variance of social intelligence.

Results

Teachers' Social Intelligence and Age Groups

Table 1 show, the age groups of participants' ranges from 26 to above 55. About 18.2 % are between the ages of 26 and 35, 48.6% are between the ages of 36 and 45, 32.9% are between the ages of 46 and 55. A one way analysis of variance (ANOVA) was performed. The results revealed that there was statistically significant differences in the means of social intelligence ($F(2, 195) = 9.56, p = 0.000$) and three age groups.

The results of the Tukey's post hoc comparison are shown in Table 2. Tukey's test was performed for dependent variables across the three age groups of the respondents. The result for social intelligence indicated that the mean scores in Tukey's HSD test for the 46 to 55 years old age group ($M = 4.96, SD = .64$) is significantly higher than the 36 to 45 years old age group ($M = 4.72, SD = .63$), and 26 to 35 years old group ($M = 4.38, SD = .45$). Thus the findings showed that for social intelligence, the older teachers showed higher scores compare than to the younger teachers.

Relationship between Teachers' Social Intelligence by personality Traits

Table 3 shows that the highest level of correlation belongs to conscientiousness and social intelligence ($P < 0/01, r = 0/59$), also there is a significant relationship between openness to experience personality traits ($P < 0/01, r = 0/52$), extraversion ($P < 0/01, r = 0/49$), emotionality ($P < 0/01, r = 0/42$), honesty humanity ($P < 0/01, r = 0/40$), and significant relation with agreeableness ($P < 0/01, r = 0/38$). Enter method regression analysis was used in

order to predict and explain the variance of social intelligence (table4)

Table 4 shows that among three variables mentioned, only extroversion ($P < 0/05$, $B = 0.17$), conscientiousness ($P < 0/05$, $B = .39$), openness to experience ($P < 0/05$, $B = .19$) explain 0.40 variance of social intelligence.

Discussion

The results showed that there were significant differences between teachers' age groups and their social intelligence. The findings of this study are parallel to works supported by Thorndike (1920), who posed that the development of social intelligence starts immediately after birth, and develops with age. The finding on the relationship between social intelligence and age is also in agreement with the findings of Goleman (1998) that suggested social intelligence skill increases as one gets older.

The results showed that the social intelligence was moderately correlated with all aspects of HEXACO- PI-R personality traits. The results also revealed that to determine the level of teachers' personality traits (honesty-humility, emotionality, extroversion, agreeableness (versus anger), conscientiousness, openness to experience) were moderate related to social intelligence. This research is line with Albrecht (2006) claimed, the teachers whose behaviors are associated with high social intelligence, stress the value of collaboration. This research supported by McCrae (2000) believed all of the Big Five personality traits have been found to correlate at least moderately with social intelligence. In

particular, social intelligence measures have generally been found to have at least moderate significant correlations with extraversion, and smaller significant positive correlations with openness and conscientiousness (Matthews et al., 2006).

Predicting changes in social intelligence is possible only through extroversion, conscientiousness, openness to experience. In other words, among the six personality traits, just these three can explain 0/40 variance of social intelligence. But the other three, honesty-humility, emotionality and agreeableness are not able to explain any of the variance. This result is in line with the studies related to general intelligence and social intelligence. This study supported with Zirkel (2000) stated social intelligence is closely related to one's own, personality and individual behavior. Those with social intelligence are fully aware of themselves and understand their environment (Austin, Saklofske & Egan, 2005; Petrides & Furnham, 2001; & Diener & Lucas, 2000) which are in accordance with the current study.

Conclusion

The results showed that there were significant differences between teachers' age groups and their social intelligence. The results also revealed that the teachers' HEXACO-PI-R personality traits (honesty-humility, emotionality, extroversion, agreeableness (versus anger), conscientiousness, openness to experience) were moderately related to social intelligence. However prediction of changes in social intelligence was possible only through extroversion, conscientiousness and openness

to experience. In other words, among the six agreeableness do not predictor explain social personality traits, just these three can explain intelligence. 0/40 variance of social intelligence, but the other three, honesty-humility, emotionality and

Table 1: Comparison of Teachers’ Social Intelligence across Age Groups

Variable	Age Group	N	percentage	Mean	S.D	F	Sig.
Social Intelligence	26-35	46	18.2	4.38	.45	9.56	0.000
	36-45	95	48.6	4.72	.63		
	46-55	57	32.9	4.96	.64		

Table 2: Tukey HSD Multiple Comparisons for Age Groups

Variable	Age Group	Age group	Mean Difference	Sig
Social Intelligence	26-35	36-45	-.34	.017
		46-55	-.57	.000
	36-45	46-55	-.23	.041

Table 3: Correlation Matrix between Personality Trait and attitude toward Social Intelligence

	Variables	1	2	3	4	5	6	7
1	Honesty Humanity	-						
2	Emotionality	0/66**	-					
3	Extraversion	0/66**	0/50**	-				
4	Agreeableness	0/71**	0/62**	0/52**	-			
5	Conscientiousness	0/54**	0/64**	0/60**	0/51**	-		
6	Openness to Experience	0/62**	0/55**	0/53**	0/56**	0/50**	-	
7	Social Intelligence	0/40**	0/42**	0/49**	0/38**	0/59**	0/52**	-

Table 4: Personality Trait and attitude toward Social Intelligence

Variables	B	B	t	P	R ²	F	P
Constant	2.03		7.18	0.000			
Honesty-humility	.08	.02	.24	0.709			
Emotionality	.04	.04	.54	0.590	0.39	18.41	0.000
Extraversion	.17	.16	1.96	0.032			
Conscientiousness	.39	.37	4.06	0.000			
Openness to experience	.19	.17	1.94	0.048			
Agreeableness	.39	.37	-.06	0.865			

Notes: R= 0.62 ; R²=0.40 ; Adj.R²=0.379 ; Durbin Watson=1.84

References

- Ackerman, P. L. & Heggestad, E. D. (1997)** "Intelligence, personality, and interests: Evidence for overlapping traits". *Psychological Bulletin*, Vol. 121, pp.219–245.
- Albrecht, K. (2006)** *Social Intelligence: The new science of success*. San Francisco, CA: Jossey-Bass.
- Alizadeh, J. (2004)** Cheching the relationship between psycho pressures based role ambiguity with job performance in Maron gas and oil company.
- Ashton, M. C., & Lee, K. (2001)** A theoretical basis for the major dimensions of personality. *European Journal of Personality*, Vol.15, pp.327-353.
- Ashton, M. C. & Lee, K. (2007)** "Empirical, theoretical, and practical advantages of the HEXACO model of personality structure". *Personality and Social Psychology Review*, Vol.11, pp.150-166.
- Austin, E. J., Deary, I. J., Whiteman, M.C., Fowkes, F. G. R., Pedersen, N. L., Rabbitt, P., Bent, N. & Brown, L. T., & Anthony, R. G. (1990)** "Continuing the Search for Social Intelligence". *Personality and Individual Differences* Vol. 11 No.5, pp.463-470.
- Austin, E. J., Saklofske, D. H., & Egan, V. (2005)** "Personality, well-being and health correlates of trait emotional intelligence". *Personality and Individual Differences*, Vol. 38, pp.547-558.
- Chamorro-Premuzic, T., Moutafi, J. Furnham, A. (2005)** "The relationship between personality traits, subjectively-assessed and fluid intelligence". *Personality and Individual Differences*, Vol.38, pp.1517–1528.
- Cohen J A. (1992)** "Power Primer". *Psychology Bulletin*, Vol.112 No.1: pp.155-159.
- Collis, J. M., & Messick, S. (2001)** *Intelligence and Personality: Bridging the gap in theory and measurement*. NJ: Lawrence Erlbaum Associates.
- Davies, M., Stankov, L., & Roberts, R.D.(1998)** "Emotional intelligence: In search of an elusive construct". *Journal of Personality and Social Psychology*, Vol.75, pp.989-1015.
- Dawda, D., & Hart, S.D. (2000)** Assessing emotional intelligence: Reliability and validity of the Bar-on.
- Diener, E., & Lucas, R. E. (1999)** Personality and subjective well-being. In D.
- Kahneman, E. & Eysenck, H. (1971)** "Relationship between intelligence and personality". *Perceptual and Motor Skills*, X, pp.637-638
- Ford, M. E, & Tisak, M, S. (1983)** "A further search for social intelligence". *Journal of Educational Psychology*, Vol.75 No2: pp.196-206.
- Furnham, A., Forde, L., & Cotter, T. (1998)** "Personality and intelligence". *Personality and Individual Differences* Vol, 24, pp.187–192.
- Goldberg, L. R. (1993)** "The structure of phenotypic personality traits". *American Psychologist*, Vol 48, pp.26-34.
- Kyllonen, P. (1997)** "Smart testing. Handbook on testing". In R. Dillon (Ed.). Westport, CT, US: Greenwood Press/Greenwood Publishing Group, Inc, pp.347–368.
- Lee, K., & Ashton, M. C. (2004)** "The HEXACO Personality Inventory: A new measure of the major dimensions of personality". *Multivariate Behavioral Research*, Vol.39, 329-358.
- McCrae, R. R., Costa, P.T., Ostendorf, F., Angleitner, A., Hrebickva, M., Avia, M. D., & Smith, P. B. (2000)** "Nature over nurture: Temperament, personality and lifespan development", *Journal of Psychology and Social Psychology*, Vol.78, PP. 173-86.
- McCrae, R. (2000)** Emotional intelligence from the perspective of the Five-Factor Model. In R.
- McInnes, L. (2002)** "Relationships between ability and personality: does intelligence contribute positively to personal and social adjustment"? *Personality and Individual Differences*, Vol.32, pp.1391-1411.
- Moutafi, J., Furnham, A., & Crump, J. (2003)** "Demographic and personality predictors of intelligence: A study using the NEO-Personality Inventory and the Myers-Briggs Type Indicator". *European Journal of Personality*, Vol17, pp. 79–94.
- Pervin, L. A., & John, O. P. (2001)** *Personality: Theory and research* (8th ed.). New York: John Wiley & Sons, Inc.
- Petrides, K.V., Furnham, A. & Frederickson, N. (2004)** "Emotional intelligence". *The Psychologist* Vol. 17, pp. 574-577.
- Petrides, K.V. & Furnham, A. (2001)** "Trait

emotional intelligence: psychometric investigation with reference to established trait taxonomies.” European Journal of Personality, John Wiley and Sons Ltd. 1996.Vol. 15, pp.425-448

Silvera D, Martinussen M, Dahl T I (2001) The Tromsø Social Intelligence Scale: A Self Report Measure of Social Intelligence. Scandinavian Journal of Psychology, Vol.42 No.4: pp.313-319.

Thorndike, E. L. (1920) “Intelligence and its uses, Harpers”, Vol.140, pp. 227-235.

Thorndike, E. L., & Stein, S. (1937) An Evaluation of the Attempts to Measure Social Intelligence. Psychological Bulletin, Vol. 34 No.5, pp.275-285.

Zirkel, S. (2000) Social intelligence: the development and maintenance of purposive behavior. The Handbook of Emotional Intelligence. San Francisco, CA: Jossey-Bass.