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The Adaptation And Validation Of The Turkish Version Of The Three-Branch Emotional Intelligence Rating Scale (Page:518)

*Serhat ARSLAN, İlker İŞERİ, Mehmet AKCAALAN, Cengiz YURDAKUL*

**The Adaptation And Validation Of The Turkish Version Of**

**The Three-Branch Emotional Intelligence Rating Scale**

**Serhat Arslan**

*Sakarya University Educational Sciences Department*

*serhatarslan@sakarya.edu.tr*

**İlker İşeri**

*Sakarya University Educational Sciences Department*

**Mehmet Akcaalan**

*Sakarya University Educational Sciences Department*

**Cengiz Yurdakul**

*Sakarya University Educational Sciences Department*

**Abstract**

The aim of this research is to examine the validity and reliability of the Turkish Version of the Three-Branch Emotional Intelligence Rating Scale (EIRS; Anguiano-Carrasco, MacCann, Geiger, Seybert, and Roberts, 2015). Participants were 325 university students. The results of confirmatory factor analysis demonstrated that the 18 items loaded on three factors (Perception, Understanding and Management) and the three-dimensional model was well fit (x²=357.85, df=132, RMSEA=.0073, NFI=.93, NNFI=.94, CFI=.95, IFI=.95, RFI=.91, AGFI=.86 and SRMR=.074). The internal consistency coefficients were .75 for perception subscale, .86 for understanding subscale, .77 for management subscale and .85 for the overall scale. The corrected item-total correlations of EIRS ranged from .20 to .61. Overall findings demonstrated that this scale is a valid and reliable instrument for measuring individuals’ tendencies to emotional intelligence.

**Keywords:** Emotional intelligence, validity, reliability, confirmatory factor analysis

**Introduction**

Students in the new era have to be very well prepared for jobs involving information and technology. They have to be able to deal with stressful competition situations or the costs can be very high for the society and the individuals themselves (Parker at al, 2004). Rapidly changing social and professional conditions has been increasing the stress level of individuals at home, at work and in social environment. One's ability to cope with challenging and overwhelming stress and demands the new era brought, is a vital element of success in life, school and work. When we consider the importance of academic success, we can see why there is such a substantial literature on promoting academic success at schools. Early study attempted to explain the role of cognitive process in success and research focused on this concept. One famous description of Cognitive intelligence was "The ability to learn new things, recall information, think rationally, apply knowledge and solve problems." (Kaplan & Sadock, 1991) Cognitive intelligence (IQ) was considered to be the most important predictor of success until some researchers claimed that IQ generates about %25 of the success and performance at work (Hunter&Hunter,1984), and that social and emotional capability – which would be named “emotional intelligence” later - was a four times more important determinant than IQ in success (Sternberg, 1996). We can look at Thorndike's “social intelligence” to understand the basis of EI. He defined social intelligence as "the ability to understand and manage others, to act wisely in human relations" in 1920. Later, Gardner used the term “interpersonal intelligence” to replace the term “social intelligence”, as a component of his Multiple Intelligences Theory (1983). Leuner used the term "emotional intelligence" referring to social and emotional capability for the first time in his study in 1966. He stated that women who were seperated from their mothers at an early age had lower "emotional intelligence" and as a result of this, they reject their roles in the social life. After him, Payne used the term in English in his doctoral study in 1986. Greenspan stated that emotions were the basis of human intelligence in 1989. Salovey and Mayer made the first formal definition of “emotional intelligence” in 1990. They described "emotional intelligence" as an individual capability to understand their own and other people's feelings and emotions and differentiate between them and use this data to manage their thinking and behaviour (Salovey & Mayer 1990). Their description is widely used to explain “emotional intelligence” today. The term “emotional intelligence” did not catch public attention until Goleman's book in 1995. In that book, Goleman discussed that skills like self-awareness, emphaty, and self-discipline have an important role in determining the success in personal and professional life. Goleman also stated that violence, irresponsible behaviours and insolance were undermining the education and society and claimed that "emotional intelligence" was the key to solve these problems. This caught attention of educators and the public so the term “emotional" intelligence started to be widely used along with education. Goleman's study promoted many scientists and researchers to make definitions and developing means of measuring the emotional intelligence skills. Reuven Bar-On produced the first verified measure of "emotionally intelligent behavior" th EQ-i. He defined "emotional intelligence" as a group of non-cognitive capabilities, abilities, and skills that influence one's competency to succeed in dealing with demands and pressures of the environment" Bar-On (2002). Many studies have been conducted to find and explain the correlation between EI and academic success after Goleman’s study. Rozell, Pettijohn & Parker's utilized the Goleman (1995) scale and the results showed a small but important connection. Schutte's finding was that the students’ self-report EI measure predicted their academic grade averages significantly (1998). Petrides, Fredrickson and Furnham’s study (2004) indicated that emotional intelligence plays a role as a moderator of the relationship between cognitive capability and academic performance. A study by Parker et al. (2004) showed that some aspects of EI are predictors of academic success. A study conducted by Rode, Arthaud-Day, Rubin, Boomer, Mooney Baldwin & Near (2007) found that EI contributes to the academic success. Newsome, Day&Catano (2000) studied on the relationship between academic success and EI, cognitive capabilities and personality. They used EQi (emotional quiotient inventory) and the study showed no significant relationship. O'Connor and Little's study (2003) found that EI is an unimportant predictor of academic success. Interest in the EI has been increasing rapidly even though disagreements and arguments will probably continue. "While the progress of the emotional intelligence paradigm has been impressive, much remains to be discovered." (Goleman & Emerling 2003). Hence, it is important to adapt this questionnaire to Turkish to investigate the undiscovered areas of emotional intelligence.

**Method**

**2.1 Participants**

The sample of this study consisted of 325 university students from Sakarya University, Turkey. Of the participants 203 were female, 122 were male. Their ages ranged between 18 - 30.

**2.2. Procedure**

The EIRS was translated into Turkish by taking the following steps: Firstly, three specialists translated English version into Turkish. The Turkish version of the EIRS was then translated back into English by two English speaking language specialists who were blinded to the original scale and the objective of the study. The differences between translated versions were evaluated and a satisfactory compliance with the original scale was achieved by consensus of the translators. The updated version was reevaluated by the original group of expert reviewers, to finalize the Turkish version used in this study. Then the validity and reliability analyses of the scale were examined. In this study, confirmatory factor analysis (CFA) was executed to confirm the original scale’s structure in Turkish culture. Besides internal consistency reliability and the item-total correlations were examined. As for the data were analyzed using LISREL 8.54 and SPSS 22.0 package programs.

**Results**

**3.1. Construct Validity**

Confirmatory Factor Analysis (CFA) is useful when researchers have clear (or competing) hypotheses about a scale – the number of factors or dimensions underlying its items, the links between specific items and specific factors, and the association between factors. That is, CFA allows researchers to evaluate the degree to which their measurement hypotheses are consistent with actual data produced by respondents using the scale (Furr & Bacharach 2008). The results of confirmatory factor analysis indicated that the three-dimensional model was well fit. (x²=357.85, df=132, RMSEA=.0073, NFI=.93, NNFI=.94, CFI=.95, IFI=.95, RFI=.91, AGFI=.86 and SRMR=.074).

Factor loadings and path diagram of Turkish version of EIRS are presented in Figure 1.1



**Figure 1.1** Factor Loadings and Path Diagram for the EIRS (F1= Perception, F2=Understanding and F3= Management)

**3.2. Reliability**

The Cronbach’s Alpha internal consistency reliability coefficients of the scale were found as .75 for perception subscale, .86 for understanding subscale, .77 for management subscale and .85 for the overall scale. The corrected item-total correlations of EIRS ranged from .20 to .61. Values for an item - total correlation between 0 and 0.19 may indicate that the question is not discriminating well, values between 0.2 and 0.39 indicate good discrimination, and values 0.4 and above indicate very good discrimination (Büyüköztürk, 2010).

**Discussion**

The purpose of this study was to adapt the EIRS into Turkish and examine its psychometric properties.Confirmatory factor analysis demonstrated that the factor structure was harmonized with the factor structure of theoriginal scale. Thus, it can be said that the structural model of the EIRS which consists of three factors was wellfit to the Turkish culture (Bentler & Bonett, 1980; Hu & Bentler, 1999; Schermelleh-Engel & Moosbrugger, 2003).The internal consistency reliability coefficients of the scale were high (Büyüköztürk, 2010; Kline, 2000).Considering that item total correlations having a value of .30 (Büyüköztürk, 2010). The results of confirmatoryfactor analysis demonstrated that the 18 items loaded on three factors (perception , understanding andmanagement) and the three-dimensional model was well fit(x²=357.85, df=132, RMSEA=.0073, NFI=.93, NNFI=.94, CFI=.95, IFI=.95, RFI=.91, AGFI=.86 and SRMR=.074).The present study has some limitations. One of the limitations of the current study is its sample size. In otherwords, future studies should investigate the same research question with a larger sample size. If a larger samplesize clarify some correlations, the validity of the findings can be increased.Moreover, conducting this study invarious rural areas of Turkey may represent the generalizability of these results to a wider population. Anotherlimitation of the current study is that the sample was composed of university students, which restricted thegeneralizability of the findings. Hence, it could be important to investigate the relationship of these variables inother sample groups. Overall findings demonstrated that this scale had high validity and reliability scores and that it may be used as a valid and reliable instrument in order to measure the individuals’ tendencies to emotional intelligence. Nevertheless, further studies that will use EIRS are important for its measurement effectiveness.

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