EMOTIONAL INTELLIGENT SCALE FOR INTERNATIONAL STUDENTS IN HIGHER EDUCATION: VALIDITY AND RELIABILITY STUDY

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Abstract

This study, which adopts an eclectic and holistic viewpoint, attempts to develop and test an instrument to measure the emotional intelligence of international students. Purposive sampling techniques of greatest variation were used to collect data from a sample of international undergraduate students (n=1560) enrolled in five Turkish state universities. Two distinct groups of international students participated in the analyses, which were carried out in two successive phases. Exploratory factor analysis (EFA) was used to find factor structure after a thorough data clean-up and preliminary assessments for the assumptions of normality and reliability. Confirmatory factor analysis (CFA) was used in the second step to validate the scale structure that EFA had shown. The Emotional Intelligence Scale for International Students' construct validity, model fit, and factor reliability are all confirmed by the outcomes of a thorough and iterative scale development procedure. As a multi-dimensional tool, the scale has 25 items on a five-point Likert scale, with three factors labelled as understanding and regulation of emotion, utilization of emotion and social awareness. The study includes the scale's final form with psychometric properties, along with implications and constraints for further research.

Keywords

Emotional Intelligence, International Students, Scale Develepment

1. Introduction

Humans, by nature, are social beings who engage with their surroundings and other individuals, forming a wide range of emotional responses that shape their understanding of the world. According to Salovey and Mayer (1990), individuals develop both positive and negative emotions through these interactions. These emotional responses are especially significant in multicultural settings, where effective communication is essential for successful social integration. In such contexts, emotional intelligence (EI) has emerged as a crucial factor in understanding how people navigate complex social environments.

Emotional intelligence is a multifaceted concept that lacks a universally accepted definition, yet it is widely regarded as the ability to recognize, regulate, and effectively utilize emotions in oneself and others (Mayer et al., 2008). Salovey and Mayer (1990) describe EI as a subset of social intelligence, which involves the capability to monitor one's own emotions and those of others, to distinguish between different emotions, and to use this information to guide one's thinking and actions. This definition emphasizes self-awareness, emotional regulation, and interpersonal skills, all of which are vital for managing the demands of diverse social contexts. Cooper and Sawaf (1997) further elaborate on EI, defining it as the capacity to understand and harness the power of emotions to improve cognitive processes and interpersonal relationships. Goleman (2018), a prominent figure in the field of EI, underscores the importance of recognizing, interpreting, and responding to emotional cues, both within oneself and in others, to foster better social interactions. These definitions collectively highlight the significance of EI in enabling individuals to navigate the complexities of daily life effectively.

In the realm of education, particularly in multicultural and international settings, the role of EI becomes even more pronounced. Stress is a common phenomenon among individuals who encounter unfamiliar environments, and it is particularly relevant for international students. Stress can be broadly defined as any situation or relationship that threatens an individual's well-being, challenges their resilience, or complicates

communication (Folkman, 1984). For international students, adjusting to a new cultural, social, and academic environment can be a source of significant stress. In such scenarios, emotional intelligence is thought to play a pivotal role in helping individuals manage these challenges. People with higher levels of EI are often seen as being better equipped to handle stress, cope with psychological difficulties, and adapt to novel circumstances due to their ability to accurately perceive and understand their emotional states and those of others (Schutte et al., 2007). This ability to manage emotional stress is crucial in facilitating a smoother adaptation process, which can, in turn, enhance academic and social success.

The term "international students" encompasses various groups of individuals who pursue educational opportunities outside their home countries. These students are often referred to by multiple terms, such as "overseas students" (Bochner, 2001), "guest students" (Coles & Swami, 2012), or "intercultural guests" (Schartner & Young, 2016). The Organisation for Economic Co-operation and Development (OECD) (2019) defines international students as individuals who travel abroad specifically to undertake education. This category can also include those born in the host country who lack citizenship but participate in the education system as non-citizens. These students face a unique set of challenges, particularly in adapting to a new educational and cultural environment that differs significantly from their home context.

The global trend towards internationalization has led to a profound transformation in education systems, particularly in the field of higher education (Alsharari, 2018). This transformation has resulted in a significant increase in student mobility across borders, with a sharp rise in the number of international students in recent decades. From the late 1970s to the early 21st century, the international student population witnessed a dramatic growth, surpassing domestic student numbers by an estimated 4.6 million (Elemo & Türküm, 2019). This trend is particularly notable in Turkey, which has emerged as a popular destination for international students due to its comprehensive educational and scholarship opportunities (Cevher, 2016). The number of international students in Turkey, for instance, rose from 48,000 in 2015 to a projected figure exceeding 200,000 by 2025 (Saraç, 2017). This surge highlights the growing importance of understanding the factors that influence the success and well-being of international students, with emotional intelligence being a key area of interest.

Higher education institutions, both in Turkey and globally, have recognized the value of integrating international students into their academic communities. These students are not only a source of cultural diversity but also represent a valuable resource for fostering global awareness and cross-cultural competence. As institutions strive to compete on an international scale, strategies to attract and retain international students have become a priority (Erdem, 2006). This includes efforts to enhance cultural integration, provide adequate support services, and develop curricula that cater to a diverse student body. Institutions that are aware of the advantages of international student mobility are investing in policies and programs aimed at maximizing the benefits of this phenomenon, often through collaborative efforts with global educational partners (Council of Higher Education, 2017).

However, while the growing presence of international students offers numerous benefits, it also presents challenges that require careful consideration. The rapid increase in the international student population has led to a series of adjustment difficulties, as indicated by a review of relevant literature (Smith & Khawaja, 2011; Forbes-Mewett & Sawyer, 2019; Firang, 2020; Ramia, 2021). These challenges often revolve around academic pressures, social integration, personal well-being, and institutional adaptation. The "W Curve" model, proposed by Gullahorn and Gullahorn (1963), illustrates the typical adjustment trajectory of international students, who experience a series of emotional highs and lows as they navigate the complexities of a new environment. This model identifies key areas of adjustment, including academic, personal-emotional, institutional, and social factors (Credé & Niehorster, 2012).

Academic adaptation, for example, is a crucial factor that significantly influences international students' overall satisfaction with their educational experience. Alemu and Cordier (2017) point out that students who struggle to adapt academically are more likely to consider returning to their home country, underscoring the importance of academic support services. In terms of personal-emotional adaptation, early challenges often stem from language barriers, unfamiliar communication styles, and the pressures of academic performance (Schartner & Young, 2016). Social adaptation, which involves building relationships and understanding the cultural norms of the host country, is closely linked to one's level of cultural awareness and knowledge. Institutional adaptation, meanwhile, refers to how well students feel integrated into the educational system and the level of support they receive from their host institution. Baker and Siryk (1984) highlight that a strong sense of institutional belonging can decrease the likelihood of students discontinuing their studies.

In summary, the role of emotional intelligence is increasingly recognized as a significant factor in facilitating the adjustment of international students to new academic and social environments. This is particularly relevant as the number of international students continues to rise, making it essential for educational institutions to understand the emotional and psychological needs of this diverse population. As such, developing reliable tools to assess the emotional intelligence of international students can provide valuable insights that contribute to better support systems, enhanced academic performance, and more effective integration strategies.

2.   Purpose of the Research and Research Questions

The concept of "EI" has become increasingly significant in recent years due to the growing number of international students influenced by globalization and competitive academic environments. This importance stems from its direct connection to an individual's ability to understand, reflect on, integrate, and regulate emotions. With the increasing enrolment of international students in Turkish higher education institutions, numerous studies have explored the challenges they encounter; however, there remains a lack of an evaluation tool to measure the extent to which these students utilize EI to address such challenges. This study aims to fill this gap by developing a valid and reliable scale to assess international students' EI in alignment with the policies of Turkish higher education institutions. Accordingly, this research seeks to answer the following questions:

1- Is the EI scale developed for international students in higher education institutions a valid measurement tool?
2- Is the EI scale developed for international students in higher education institutions a reliable measurement tool?

3.   Method

Although various researchers have proposed different criteria for determining the ideal sample size in factor analysis studies, no definitive consensus has been reached on the matter. While some scholars argue that having 5 to 10 participants per item in the measurement tool is adequate (Bollen, 1989; Tinsley & Tinsley, 1987), others suggest that a total sample size of 100-200 participants is sufficient (Kline, 2016). Based on this framework, data for the exploratory factor analysis (EFA) in this study, which employed maximum diversity sampling, were collected from 750 international students during the 2024-2025 academic year at five state universities in Turkey that collectively host over 15,000 international students. Data for the confirmatory factor analysis (CFA) were gathered from 810 students attending the same institutions who did not participate in the EFA. Demographic details of the international students involved in EFA and CFA are presented in Table 1.

			f	%
EFA	Gender	Female	153	20,4
		Male	597	79,6
		Total	750	100
	Country	Chad	80	10,67
		Syria	76	10,13
		Somalia	69	9,2
		Iraq	64	8,53
		Azerbaijan	61	8,13
		Turkmenistan	55	7,33
		Jordan	53	7,07
		Afghanistan	49	6,53
		Dijibouti	44	5,87
		Uzbekistan	40	5,34
		Egypt	39	5,2
		Indonesia	33	4,4
		Myanmar	22	2,93
		Others (30 Countries)	65	8,67
		Total (43 countries)	**750**	**100**
CFA	Gender	Female	320	39,51
		Male	490	60,49
		Total	810	100
	Country	Azerbaijan	95	11,73
		Syria	89	10,99
		Turkmenistan	83	10,25
		Somalia	74	9,14
		Iraq	72	8,89
		Afghanistan	69	8,52
		Jordan	67	8,27
		Cameroon	54	6,66

	Gabon	44	5,42
	Dijibouti	38	4,69
	Indonesia	25	3,09
	Egypt	23	2,84
	Uzbekistan	22	2,72
	Others (27 Countries)	55	6,79
	Total (50 countries)	**810**	**100**

Table 1. Demographics of the participants in AFA and DFA

3.1. Scale Development Steps

In scientific research, it is essential to first identify an appropriate measurement method for the characteristic being assessed and to determine which mathematical property (e.g., ranking, categorization, equal intervals, or equal ratios) will form the basis of this method. In this regard, Kline (2015) highlights that equally spaced scales can be readily converted into other scale types, facilitating score comparisons. Considering these advantages, the EI Scale for International Students was designed as a five-point Likert scale with equal intervals. The response options for the scale are structured as "Strongly Disagree, Disagree, Undecided, Agree, Strongly Agree." To enhance the accuracy of data collected through Likert-type scales, it is recommended that some items include negative statements (Carifio & Perla, 2007). Accordingly, the EI Scale for International Students incorporates negatively worded items.

After selecting the assessment method, a comprehensive review of the EI literature was conducted, and thirty international students were invited to write essays on the concepts of EI and international students to establish a theoretical framework. Based on a content analysis of the collected data, a prototype EI Scale for International Students comprising 40 items, including 13 reverse-coded items, was developed. To ensure face and content validity, feedback was obtained from two measurement and evaluation specialists and three experts in educational sciences. Furthermore, to evaluate the scale's validity in terms of language and clarity, three experts provided feedback on the comprehensibility of the items, leading to revisions in the wording of certain items. The Kendall W coefficient of concordance was calculated to assess the content validity of the scale items. A coefficient with a significance value below 0.05 is considered evidence of content validity (Legendre, 2005). The Kendall W coefficient for the EI Scale for International Students was determined to be 0.89 (p<0.05), indicating strong agreement among experts. The revised scale, incorporating expert feedback, was then piloted with a sample of 405 international students.

3.2. Analysis of Data

To confirm the construct validity of the EI Scale for International Students, an EFA was carried out with the use of the SPSS 22 program. Pallant (2016) emphasizes that EFA performed at the first stage of research contributes to researchers in collecting more information about the interrelationships between variables. As a result of the data obtained from EFA, it can be decided which items will be placed under which factor by looking at the load values of the items. Tabachnick and Fidel (2013) mention that thanks to Principal Component Analysis, variables can be reduced and combined into a small number of components. In the light of this information Principal Component Analysis was used to identify the variables in the scale within the parameters of the study. It was tried to determine whether the model obtained from EFA constitutes a valid structure or not with CFA.

4. Results

In this section, findings regarding the analyses conducted within the scope of EFA and CFA are included.

4.1. Findings Regarding Exploratory Factor Analysis

Prior to EFA, the purpose of the data normality analysis is to assess the EI Scale for International Students' construct validity. In this context, the data obtained was checked for missing values and no missing data was detected. In the second stage, descriptive statistics were made for the data set and information about skewness and kurtosis coefficients, mode, median and mean were examined. This information is given in Table 2.

N	Valid	750
	Missing	0
Mean		3,62
Median		3,63
Mode		3,53
Skewness		-,370
Kurtosis		,284

Table 2. Statistics for normality before EFA

As a result of the preliminary examinations conducted before EFA, it is seen that the skewness and kurtosis coefficients take values between -1 and +1. Although it is accepted that the skewness and kurtosis coefficients are between -1 and +1 (Tabachnick & Fidel, 2013); depending on the sample size, it can be said that the range between -2 and +2 is also suitable for normal distribution (George & Mallery, 2011). In this particular situation, it was determined that the scores on the EI Scale for International Students exhibited a normal distribution.

To find the difference between the top 27% and upper 27% group's average scores, an independent t-test was used in the following step. The members of the research group were coded inside this framework to represent their respective groups, and an independent t-test was used to compare these two groups. This research revealed that the scores of the lower 27% and upper 27% groups differed significantly from one another.

The data set's suitability for factor analysis was assessed using KMO and Bartlett's Tests. A statistically significant result was achieved when the data from the KMO and Bartlett's tests were analysed, allowing for factor analysis (KMO = 0.94; p < 0.05; Bartlett's test of sphericity: $\chi2$ (780) = 6028.99, p < 0.01). The reverse image correlation matrix, which helps to show sample suitability for each variable, was looked at prior to factor analysis. According to Field (2005), every item on the scale should have a anti-image correlation value greater than 0.5. Based on the information provided, Table 3 indicates that every item on the EI Scale for International Students satisfies this requirement.

Items	Anti-image correlation value	Items	Anti-image correlation value
Item 1	0,912	Item 21	0,938
Item 2	0,903	Item22	0,897
Item 3	0,895	Item 23	0,937
Item 4	0,929	Item 24	0,909
Item 5	0,866	Item 25	0,898
Item 6	0,937	Item 26	0,905
Item 7	0,920	Item 27	0,903
Item 8	0,934	Item 28	0,873
Item 9	0,941	Item 29	0,924
Item10	0,898	Item 30	0,840
Item 11	0,958	Item31	0,875
Item 12	0,867	Item 32	0,892
Item 13	0,912	Item 33	0,836
Item14	0,903	Item34	0.888
Item 15	0,899	Item 35	0,896
Item 16	0,913	Item 36	0,853
Item 17	0,901	Item 37	0,901
Item 18	0,962	Item 38	0,902
Item 19	0,873	Item 39	0,879
Item 20	0,888	Item 40	0,866

Table 3. Anti-image Correlation Values

The 40-item EI Scale for International Students' factor structure was ascertained by factor analysis. The components in the study were identified using principal component analysis, and the correlation between the factors was ascertained using the oblimin rotation method. These studies led to the removal of six items with multiple factors and nine items with factor loadings less than 0.32 from the scale. These approaches led to the conclusion that there is a 3-factor structure in the scale with 25 items. Factor load values for the scale are shown in Table 4.

Items	Factor 1	Factor 2	Factor 3
7. I'm aware of the right moments to share my feelings with my friends from abroad.	0,38		
11. I can not easily recognize my emotions as they occur.	0,51		
12. I can understand why my feelings changed because I am in a different country.	0,48		
15. When my mood shifts, I discover new opportunities.	0,52		
18. I look for activities that bring me joy while I'm in another country.	0,45		
22. I don't give much thought to my feelings.	0,46		
25. I allow my feelings to affect my thoughts.	0,46		

28. It is worthwhile to think about my emotions and mood as I am in a different country.	0,42	
30. It takes time to think about emotions.	0,47	
32. I am always aware of my happiness.	0,55	
39. I usually have a clear understanding of the reasons behind my feelings.	0,49	
1. When I'm in a good mood, tackling problems in another country feels effortless.		0,47
3. When I'm in a bad mood, I make an effort to solve my problems.		0,52
4. I rely on positive moods to keep pushing forward when facing obstacles in a foreign country.		0,46
9. When I'm feeling positive, I can generate new ideas.		0,45
16. When I notice a shift in my emotions, I often generate new ideas.		0,45
20. As an international student, I consistently set goals for myself and strive to achieve them.		0,48
26. I consistently remind myself that I am capable.		0,45
34. I consistently motivate myself to give my best effort.		0,40
37. I am a self-motivating person.		0,56

33. I can not respect and relate well to people from different countries.	0,46
23. I don't show senstivity and understand my foreign students' point of view.	0,36
40. I find it challenging to interpret the non-verbal cues (such as facial expressions) of my friends from abroad.	0,40
10. I understand the way my foreign friends think, feel and behave.	0,32
29. I recognise and reward my foreign friends' strengths, accomplishments and developments.	0,39

Tablo 4. Items' Factor Loading

Although the high variance rates obtained as a result of factor analysis are an important source of data regarding the strength of the factor structure of the scale, Büyüköztürk (2009) states that it is very difficult to reach very high variance rates in studies in the field of social sciences. With these data, it was concluded that the structure with 25 items and 3 factors explained 44.94% of the variance overall. 30.41% of the variance is explained by the first factor, "Understanding and Regulation of Emotion," followed by "Utilization of Emotion," which explains 8.25%, and "Social Awareness," which explains 6.28%. A factor load value of less than 0.32 is considered undesirable, according to Comrey and Lee's (2013) determination of a reference point for the factor load values of the items in factor analysis. According to the analysis, all the items were appropriate for this reference point because the factor load values ranged from 0.56 to 0.32.

4.2. Findings Regarding Confirmatory Factor Analysis

The EI Scale for International Students' factor structure appeared at the end of EFA, and CFA was used to assess if it was appropriate for international students. Before performing CFA, it was checked whether the data set contained outliers and missing evaluations. It was determined that the skewness and kurtosis coefficient values, as seen in Table 5, were between +1 and -1, and the mode, median and mean values were close to each other.

N	Valid	810
	Missing	0
Mean		3,75
Median		3,74
Mode		3,95
Skewness		,003
Kurtosis		-,452

Table 5. Statistics for normality before CFA

To find the difference between the top 27% and upper 27% group's average scores, an independent t-test was used in the following step. The members of the research group were coded inside this framework to represent their respective groups, and an independent t-test was used to compare these two groups. This research revealed that the scores of the lower 27% and upper 27% groups differed significantly from one another.

It was intended to verify the structure made up of 25 items and 3 factors derived from EFA with CFA after looking at the normalcy tests. The data set's suitability for factor analysis was assessed using KMO and Bartlett's Tests. The data were determined to be statistically significant (KMO= 0.846 p<0.05; Bartlett's test of sphericity: 3833.524 p<.01) when the results of the KMO and Bartlett's Tests were analysed. It is recommended to use some fit indices to examine to what extent the structure of the scale is confirmed (Kline, 2016). In this context, fit indices such as $\chi 2$ /sd, SRMR, AGFI, GFI, CFI, NFI, IFI, TLI and RMSEA have been determined. The fit indices for the scale are shown in Table 6.

Fit Indices	Observed Values	Excellent Fit Values	Acceptable Fit Values	Result
x 2 /sd	1,29	$0 \leq$ x 2 /sd ≤ 2	$2 \leq$ x2/sd ≤ 3	Excellent Fit
SRMR	,038	$0 \leq$ SRMR $\leq$,05	,05 $\leq$ SRMR $\leq$,10	Excellent Fit
AGFI	,914	,90 $\leq$ AGFI $\leq 1,00$	,85 $\leq$ AGFI $\leq$,90	Excellent Fit
GFI	,941	95 $\leq$ GFI $\leq 1,00$	,90 $\leq$ GFI $\leq$,95	Acceptable Fit
CFI	,981	,95 $\leq$ CFI $\leq 1,00$	,90 $\leq$ CFI $\leq$,95	Excellent Fit
NFI	,933	,95 $\leq$ NFI $\leq 1,00$	,90 $\leq$ NFI $\leq$,95	Acceptable Fit
IFI	,968	,95 $\leq$ IFI $\leq 1,00$	,90 $\leq$ IFI $\leq$,95	Excellent Fit m
NNFI (TLI)	,961	95 $\leq$ NNFI $\leq 1,00$	,90 $\leq$ NNFI $\leq$,95	Excellent Fit
RMSEA	,030	$0 \leq$ RMSEA $\leq$,05	,05 $\leq$ RMSEA $\leq$,08	Excellent Fit

Table 6. CFA Results

The Chi-Square degree of freedom revealed a statistically significant and perfect fit within the framework of the model (0<χ2/sd=1.29<2), according to an analysis of the scale's fit indices. Furthermore, upon analysis of the model's fit indices, it was found that the SRMR, AGFI, CFI, IFI, NNFI, and RMSA values were in perfect agreement with the model; GFI and NFI values are also at an acceptable fit level. Thus, the EI Scale for International Students —which comprises 25 items gathered by EFA and contains three sub-factors—can be said to have been validated by CFA. The model for the scale is presented in Figure 1.
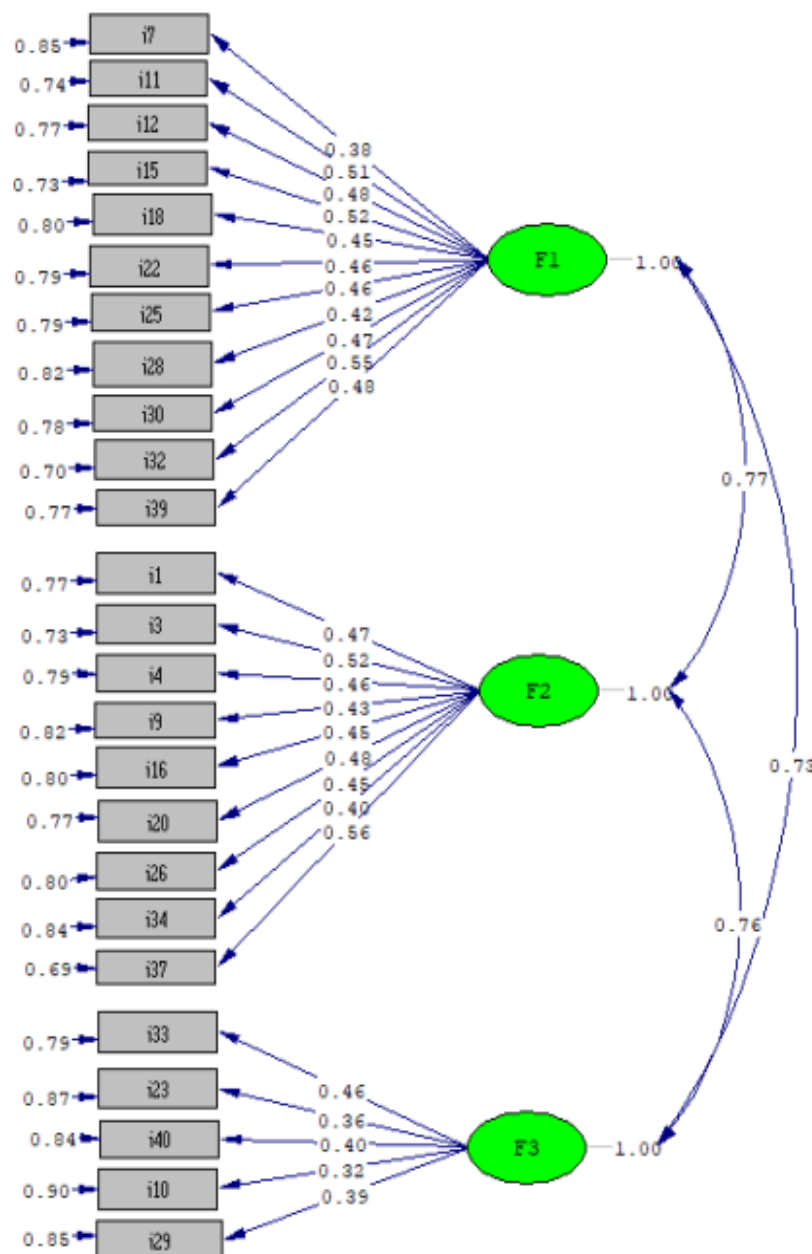

Figure 1. CFA Diagram

When Table 7 is examined, the Cronbach Alpha values obtained for the entire EI Scale for International Students and its factors can be seen. The Cronbach Alpha value obtained for the entire scale is .851, .855 for the first factor, .811 for the second factor and .822 for the third factor. Baumgartner and Hyuk Chung (2001) states that a reliability coefficient of .70 or above is an important criterion for psychological tests. In this context, it can be said that the reliability coefficient obtained for the entire EI Scale for International Students and its factors meets the criteria stated in the literature.

Factor	N	Item No	Cronbach Alpha Coefficient
Understanding and Regulation of Emotion	11	7,11,12,15,18,22,25,28,30,32,39	.855
Utilization of Emotion	9	1,3,4,9,16,20,26,34,37	.811
Social Awareness	5	10,23,29,33,40	.822
Total	25		.851

Table 7. Reliability test results

In summary, the development study of the EI Scale for International Students started with 40 items, and as a result of EFA and CFA analyses, 25 items and a 3-factor structure with structural validity and reliability features were reached.

5.   Conclusion, Discussion and Suggestions

The study aimed to develop a valid and reliable scale to evaluate international students' EI in alignment with the policies of Turkish higher education. To establish content and face validity, expert opinions were obtained. Construct validity was assessed through exploratory and confirmatory factor analyses conducted with diverse groups of international students. Exploratory factor analysis identified three components of the scale: Understanding and Regulation of Emotion, Utilization of Emotion, and Social Awareness. The first factor, Understanding and Regulation of Emotion, comprises 11 items; the second factor, Utilization of Emotion, includes 9 items; and the third factor, Social Awareness, consists of 5 items. An examination of the items' loadings revealed values ranging from 0.56 to 0.32, which align with thresholds commonly cited in the literature. Consequently, no items were removed during the exploratory factor analysis. The three-factor structure with 25 items identified in the exploratory analysis explained 44.94% of the total variance.

Confirmatory factor analysis (CFA) was conducted to validate the 25-item structure and the three-factor model identified through exploratory factor analysis (EFA). The fit indices indicated an excellent fit with the model, as reflected in the SRMR, AGFI, CFI, IFI, NNFI, and RMSA values, while GFI and NFI values demonstrated an acceptable fit. These findings confirm that the structure identified in the EFA was successfully validated through CFA. Additionally, the internal consistency of the scale was assessed using Cronbach's alpha coefficients for each factor and the overall scale. The coefficients were .855 for Understanding and Regulation of Emotion, .811 for Utilization of Emotion, .822 for Social Awareness, and .851 for the total scale. These results indicate that the scale is both valid and reliable as a tool for measuring emotional intelligence (EI) in higher education contexts. Theoretically, the scale holds potential for exploring various aspects of EI, including its characteristics, underlying factors, implications, and avenues for enhancement.

The varied definitions of the EI construct used by researchers have resulted in the inclusion of different dimensions and types across existing measures (Gowing, 2001). Additionally, these measures utilize various response methods, including self-report, ability, and informant-based techniques, which may hold distinct implications. While self-report EI measures capture a wide range of individual differences and exhibit adequate reliability, they tend to align with or load onto established personality dimensions (Daus & Ashkanasy, 2003; Davies et al., 1998). Conversely, ability-based EI measures demonstrate stronger correlations with general cognitive ability and are less intertwined with personality traits (Van Rooy & Viswesvaran, 2004). However, the extent of overlap between trait- and ability-based EI measures remains insufficiently explored.

Despite their utility, significant limitations persist across EI measures, ranging from issues of discriminant validity in self-report tools to scoring challenges in ability-based tools. Furthermore, the dominant four- or five-factor models in current EI assessments fail to capture the unique attributes pertinent to international students. Accordingly, there is a clear gap in the literature for a tool capable of measuring international students' emotional dimensions, their application, and their social awareness. The scale developed in this study, alongside its validity and reliability analyses, aims to address these deficiencies.

The findings of this research are expected to have a substantial impact on the future application of EIS for evaluating international students in Turkish universities. However, this study did not account for potential variations based on students' home countries, scholarship types, study programs, or linguistic characteristics within the sample. Therefore, future research is encouraged to expand the constructs to more comprehensively assess the characteristics of international students diagnosed using the EIS.

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