



Turkish Validity and Reliability Study of Social Emotional Assets and Resilience Scale-Teacher Form (SEARS-T)

Senim ÇENBERCİ^a  & Enver TUFAN^a 

^aGazi University, Ankara, Turkey

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ABSTRACT

This paper aims to adapt the Social Emotional Assets and Resilience Scale-Teacher Form (SEARS-T) into Turkish and to determine its validity and reliability. The sample of the study consisted of 430 students attending kindergarten and primary school grades 1-4. The standardized values, obtained as a result of the first-order confirmatory factor analysis ($X^2= 3.860.88$ $sd=773$; $RMSEA=.10$; $SRMR=.063$; $CFI=.98$; $NNFI=.97$) and obtained as a result of the second-order confirmatory factor analysis ($X^2=3.895.94$ $sd=775$; $RMSEA=.10$; $SRMR=.063$; $CFI=.98$; $NNFI=.97$), confirmed that the scale showed a four-factor structure in Turkish culture similar to its original structure. In order to provide evidence for the reliability of the scale, both Cronbach alpha values and item-test correlations were examined for the sub-dimensions and the total of the scale. According to the item test correlation, it was determined that the scale items served the purpose of measuring the feature to be measured. While Cronbach's alpha value was obtained as .982 for the whole scale, it was obtained as .950 for the responsibility sub-dimension, .953 for the social competence sub-dimension, .957 for the self-regulation sub-dimension, and .921 for the empathy sub-dimension. According to the Pearson Product Moments Correlation coefficient, the correlation coefficients between the sub-dimensions of the scale ranged from .70 to .85, and the sub-dimensions of the scale were found to have high and significant relationships with each other. In light of these findings, it has been revealed that SEARS-T-Turkish is a valid and reliable measurement tool for measuring the social and emotional skills of kindergarten and primary school children.

The concept of social and emotional learning, which is an integral part of education and human development, with its current and broad definition, is the process of acquiring the knowledge, skills, and behaviours necessary for all individuals to develop healthy identities, manage their emotions, achieve personal and collective goals, empathize, establish and maintain supportive relationships, and make responsible and caring decisions (Casel, 2020). The foundation of social and emotional learning is based on the concept of "emotional intelligence", which was first proposed in an article published by psychologists John Mayer and Peter Salovey in 1990. This concept was reformulated by Daniel Goleman in 1995 and published in the book titled "Emotional Intelligence". With this study, Goleman put forward the first evidence of social and emotional learning, which is a very important component of education. The concept of emotional intelligence was adopted by educators in a short time and started to be reflected in educational practices under the name of "social and emotional learning" (Goleman, 2005, p. 6-8).

CORRESPONDING AUTHOR Senim ÇENBERCİ, scenberci@hotmail.com, ORCID: 0000-0002-5692-2595, Gazi University, Ankara, Turkey.

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In 1994, the concept of social and emotional learning entered the literature with the establishment of Collaborative for Academic, Social, and Emotional Learning (CASEL), in which 16 academicians, including Goleman, combined their work. With CASEL, this concept has started to become widespread and academic studies have gained momentum (Göl- Güven, 2021, p. 30). CASEL has included the word “learning” in this term to reflect the learning process of social and emotional skills and to emphasize that schools are the primary place where this learning takes place. The institution has divided this concept into five basic skills based on personal, interpersonal, and cognitive skills. These are self-awareness, social-awareness, self-management, responsible decision-making, and relationship skills (Weissberg et al., 2015, p. 6-7). The skills can be briefly defined as follows:

- Self-awareness: An individual's ability to identify his own feelings and thoughts and their effects on their behaviours.
- Self-management: An individual's ability to effectively regulate their emotions, thoughts and behaviours in different situations.
- Social-awareness: Being able to understand and empathize with the perspectives of people from different cultures and values; the ability to behave in accordance with social and ethical norms.
- Relationship skills: The ability to establish and maintain healthy relationships with different people or groups.
- Responsible decision-making skills: The ability to make constructive and respectful choices on individual behaviours and social interactions (Casel, 2013).

The concept of social and emotional learning, which was born in America, was adopted in schools in various parts of the world such as the Far East, Europe, Australia, Latin America, and Africa. In 2002, UNESCO made an initiative to promote social and emotional learning and sent a report to the education ministries of 140 countries containing 10 basic principles for the inclusion of social emotional learning in education programs (Goleman, 2005, p. 7-8). Thus, the concept has begun gain an important place in educational practices around the world.

Among the general objectives of Turkish National Education included in the Basic Law of National Education is the article "Raising constructive, creative and productive people who have a well-developed personality and character in a balanced and healthy way in terms of body, mind, morality, spirit and emotion, have an independent and scientific thinking ability, have a wide world view, who are respected to human rights, value personality and enterprise, feel responsibility towards society (Milli Eğitim Temel Kanunu, 1973)". Accordingly, it can be said that the Turkish National Education system embraces as a principle not only the academic development of the individual but also the development of the individual as a whole with its social, emotional and physical aspects; however, it is seen that social and emotional learning skills are not yet directly included in education programs (Göl- Güven, 2021, p. 35). It is thought that the direct as well as implicit inclusion of these skills in the curriculum will serve the general purposes of National Education.

Although social and emotional learning is not yet directly included in education programs in Turkey, the projects initiated by the Ministry of National Education show that this concept increases its importance in the Turkish education system. In 2022, the Social Emotional Skills Project (SODBEP) was started (MEB, 2022b). This project aims to prepare social-emotional skills programs. Again, with the "Development of Social Emotional Skills Project" carried out in cooperation with UNICEF in 2022, it was aimed to prepare a social emotional skills family training program for families and "Social Emotional Skills Family Program In-Service Training Course" was initiated for trainers in the same year. With the prepared family education programs, it is aimed to reach the families of the students at all age group through psychological counselors/guidance teachers (MEB, 2022a). In the light of these studies, it will be important to monitor social and emotional learning skills in the school environment and to measure them at regular intervals. It is thought that SEARS-T, which is based on teacher evaluation rather than self-evaluation, will contribute to educational practices in our country with its usability in the school environment.

The main reason for the need for this adaptation is the fact that a valid and reliable measurement tool suitable for the primary school 1st-grade level, cannot be found in Turkey. As a result of the literature review, various measurement tools developed or adapted for the measurement of social emotional learning skills in the primary school period in Turkey have been reached. Aygün and Taşkın (2017) developed a self-assessment scale to measure the social emotional learning skills of third and fourth-grade students. Totan (2011) made the Turkish adaptation of the Social Emotional Learning Scale based on self-evaluation for the primary school level developed by Coryn (2009). Arslan and Akın (2013), on the other hand, reconsidered the validity and reliability of the Turkish version of the same scale. However, it was thought that the use of these self-evaluation-based scales at the primary school 1st-grade level would not provide a valid and reliable measurement. For this reason, there was a need to adapt the SEARS-T scale into Turkish, which has proven validity and reliability in the original language, where the assessment is made by the classroom teacher, counsellor, or other teachers who know the student closely.

Method

Research Group

Convenience sampling approach, one of the non-probabilistic sampling types, was used in the study. In this type of sampling, the suitability and volunteering of the participants for the study are taken into account (Creswell, 2020, p. 193). The schools where the research will be conducted were chosen by the researcher as the representative of the universe, and the research group was determined in line with the volunteering.

The research group consists of 430 students attending the kindergarten and primary school grades 1-4 in Çankaya, Yenimahalle, and Keçiören districts of Ankara. The validity and reliability study of the scale was conducted on a voluntary basis with the classroom and guidance teachers of the research group. After being informed about the purpose of the research, teachers were asked to fill out the form on behalf of each student in their class based on their observations over the last 3 to 6 months. Distribution of participants by grade level have presented at Table 1.

Table 1. Distribution of Participants by Grade Level, Age and Gender.

Grade	The Number of Participants	Age	Female	Male
Kindergarten	60	5-6	36	24
Grade 1	99	6-7	53	46
Grade 2	98	7-8	52	46
Grade 3	86	8-9	45	41
Grade 4	87	9-10	51	36

Data Collection Tool

The Social Emotional Assets and Resilience Scale (SEARS) is a comprehensive measurement tool developed to assess the social emotional skills of children and young adults. It is divided into three as self-assessment form, teacher evaluation form, and parent evaluation form, which allow social and emotional skills to be evaluated from different perspectives. The self-evaluation form is divided into two as SEARS-C (for 8-12 age group) and SEARS-A (for 13-18 age group). Teacher evaluation form SEARS-T and parent evaluation form SEARS-P are used as measurement tools with high validity and reliability in the age range of 5-18 years. All of these measurement tools measure common constructs such as self-regulation skills, responsibility skills, empathy skills, and social competence. Evaluation forms consist of 35-41 items; there is also a short version of each form consisting of 12 items (Merrell, 2011, p. 1). In this study, adaptation and validity-reliability of SEARS-T were made.

SEARS-T is a teacher evaluation form consisting of four sub-dimensions and a total of 41 items, which can be used in a wide age range from kindergarten through 12th grade. The distribution of these 41 items to the four sub-dimensions of the scale is as follows: self-regulation skills 13 items, social competence 12 items, empathy skills 6 items, and responsibility skills 10 items. If we give an example of each sub-dimension, the item “Is good at understanding the point of view of other people.” is the empathy sub-dimension, the item “Works

independently on assignments, without help.” the responsibility skills sub-dimension, the item “Makes friends easily” the social competence sub-dimension, the item “Is good at solving problems” item represents the sub-dimension of self-regulation skills. Answer options are a 4-point Likert type: 0=never, 1 = sometimes, 2 = often and 3=always (Merrell, 2011, p. 5-15).

Within the scope of the validity study of SEARS-T in its original language, exploratory factor analysis (EFA) was performed on a large sample (n=1.673). As a result, the four-factor structure of the scale was revealed. The first factor, called “responsibility”, explains 49.88% of the variance. The second factor, called "Social Competence", explains 6.91% of the variance. The third factor, called "Self-Regulation", explains 3.8% of the variance and the fourth factor, called "empathy", explains 2.6% of the variance. In order to verify the factor structure revealed, confirmatory factor analysis (CFA) was applied on the data of 836 randomly selected people from a sample of 1.673 people used in the exploratory factor analysis. As a result of the confirmatory factor analysis of the 4-factor structure of the scale, it was seen that the fit was very good ($X^2= 7.765$; $p=.021$; RMSEA=.059; SRMR=.009; CFI=.997). The results obtained from the exploratory and confirmatory factor analyses demonstrated the validity of the internal structure of SEARS-T (Merrell, 2011, p. 60-62). Within the scope of the reliability study of SEARS-T, Cronbach’s alpha values were .95 for the self-regulation factor; .94 for the social competence factor; .91 for the empathy factor; .95 for the responsibility factor and for the total scale was determined as .98. The test-retest application was carried out with the teachers of 118 primary school students. The scale was applied on the same sample with an interval of two weeks. Accordingly, the test-retest coefficients were .90 for the self-regulation factor; .92 for social competence factor; .84 for empathy factor; .92 for the responsibility factor and .94. for the total scale. In light of these results, it has been revealed that the SEARS-T form in its original language is a valid and reliable measurement tool (Merrell, 2011, p. 53-62).

Adaptation Process

Obtaining Permissions. The permission for SEARS-T to be adapted into Turkish was obtained on January 22, 2020 from PAR (Psychological Assessment Resources) Inc., which has all the rights of the scale. In line with this permission, 570 copies of the scale were allowed to be used for scientific purposes within the scope of validity and reliability studies, by waiving the fee. According to the permission received:

- The use of the scale other than the limited 570 copies for this study is subject to permission.
- All rights of the Turkish version of the scale, which will be obtained as a result of the adaptation work, are reserved by PAR and its use is subject to permission. The Turkish version of the scale must be obtained from PAR for any use.
- The validity and reliability study could not be started before the Turkish translation of the scale was approved by the PAR.
- All data from the study were reported to the PAR after reporting.

Translation of Scale Items into Turkish. After the adaptation permission was obtained, the English to Turkish translation process of the scale started. The original form was translated into Turkish by two independent sworn translators and researcher who are fluent in both languages. The expressions obtained from the first translation were compared with each other and common expressions were determined. The expert opinion form, which includes the items in the original language and the common expressions obtained as a result of three different translations, was submitted to the opinions of 8 faculty members working in Gazi University, Gazi Education Faculty, Psychological Counselling and Guidance Department and English Education Department within the scope of linguistic equivalence study.

In line with the suggestions obtained from the expert opinions, necessary arrangements were made on the Turkish items and English to Turkish translation took its first form. The form was back-translated from Turkish to English by a sworn translator who had never seen the original form. Final translation and back translation was sent to PAR. The translation, evaluated by the PAR, had gone through three more revision processes. At the end of the third revision, the Turkish form was approved and finalized by the PAR. After all these stages, the validity and reliability study of the form was started.

Analysis of Data

While examining the structure of the scale in Turkish culture, firstly, descriptive statistics related to the items were calculated to provide information about the general distribution, confirmatory factor analysis was

performed to test its validity, and Cronbach alpha value was calculated for the evidence related to reliability. The findings are presented in tables and graphs. SPSS 25.0 and Lisrell 8.7 package programs were used in the analysis of the data.

Findings and Interpretation

Descriptive statistics on scale items are given in Table 2. When Table 1 is examined, it is seen that the mean scores obtained by the participants from the items in the scale vary between 1.65 ($ss = .94$) and 2.44 ($ss = .68$). When the skewness and kurtosis coefficients are examined, it is seen that the skewness values vary between -932 and $+152$; and the kurtosis values vary between -978 and $+068$. Since these values are in the range of ± 1.5 (Tabachnick et al., 2015), it can be said that the responses of the participants to the items show a normal distribution.

Table 2. Descriptive Statistics on Scale Items

Item	N	Mean	Sd	Skewness	Kurtosis
M1	389	2.35	.83	-.884	-.523
M2	389	2.37	.68	-.624	-.725
M3	389	2.24	.72	-.449	-.849
M4	389	2.05	.85	-.431	-.752
M5	389	2.08	.96	-.623	-.788
M6	389	2.16	.85	-.575	-.732
M7	389	2.14	.87	-.593	-.682
M8	389	2.15	.81	-.572	-.515
M9	389	2.08	.78	-.437	-.453
M10	389	2.19	.88	-.713	-.564
M11	389	2.09	.84	-.388	-.953
M12	389	1.93	.86	-.207	-.978
M13	389	2.44	.68	-.932	.068
M14	389	2.06	.92	-.560	-.731
M15	389	2.03	.90	-.449	-.850
M16	389	2.06	.76	-.383	-.441
M17	389	2.01	.84	-.295	-.916
M18	389	1.86	.84	-.242	-.666
M19	389	2.10	.86	-.606	-.478
M20	389	2.12	.81	-.413	-.891
M21	389	1.97	.79	-.297	-.560
M22	389	2.06	.86	-.655	-.249
M23	389	2.23	.74	-.546	-.463
M24	389	2.03	.82	-.430	-.565
M25	389	2.03	.87	-.455	-.719
M26	389	1.65	.94	-.106	-.914
M27	389	1.87	.90	-.274	-.844
M28	389	2.34	.73	-.828	-.010
M29	389	2.00	.83	-.348	-.721
M30	389	2.24	.83	-.673	-.678
M31	389	1.95	.92	-.310	-.911
M32	389	2.26	.75	-.565	-.771
M33	389	1.85	.79	-.154	-.589
M34	389	1.83	.83	-.055	-.857
M35	389	2.43	.70	-.875	-.346
M36	389	2.28	.82	-.810	-.358
M37	389	2.03	.84	-.323	-.927
M38	389	1.95	.87	-.329	-.786
M39	389	1.93	.84	-.292	-.726
M40	389	1.89	.81	-.250	-.599
M41	389	1.76	.80	.152	-.887

Validity: Confirmatory Factor Analysis

Confirmatory factor analysis was performed to provide evidence of the validity of the scale. As a result of the first-order factor analysis conducted with 4 factors, as in the original structure of the scale, it was seen that the scale was compatible at an acceptable level ($X^2= 3.860,88$ $sd=773$; $RMSEA= .10$; $SRMR = .063$; $CFI = .98$; $NNFI = .97$). Similarly, in the second-order confirmatory factor analysis, acceptable goodness of fit values was obtained ($X^2= 3.895.94$ $sd = 775$; $RMSEA = .10$; $SRMR = .063$; $CFI = .98$; $NNFI= .97$).

Table 3. Obtained Goodness of Fit Values

<i>First Order</i>						
X^2	sd	X^2/sd	RMSEA [90 %]	SRMR	CFI	NNFI
3.860.88	773	4.99	.098-.10	.063	.98	.97
<i>Second Order</i>						
X^2	sd	X^2/sd	RMSEA [90%]	SRMR	CFI	NNFI
3.895.94	775	5.02	.099-.11	.063	.98	.97

While Byrne (2013) stated that the X^2/sd value is higher than 5, the RMSEA value is higher than 08, and the NNFI and CFI values are higher than 90 indicates good compliance, Kline (2015) stated that the CFI and NNFI values over .95 are an indicator of a perfect fit. With this, since the RMSEA value is affected by the sample size (Hu and Bentler, 1999), MacCallum et al. (1996) stated that RMSEA values up to .10 are also acceptable. According to Hu and Bentler (1996), SRMR values of .080 and below indicates a good level of model-data fit. When the findings of the scale are evaluated in light of these criteria, it can be said that the scale has a structure similar to its original structure in Turkish culture. Path diagrams for standardized values obtained as a result of first-order and second-order confirmatory factor analysis are presented in Figure 1 and Figure 2.

When Figure 1 is examined, it is seen that the standardized β values of the items vary between .86 and .75 in the responsibility(F1) dimension; between .71 and .85 in the social competence (F2) dimension; between .65 and .88 in the self-regulation (F3) dimension; between .88 and .75 in the empathy (F4) dimension. When the t values of the items were examined, it was found that each item was a significant predictor of the latent variable it represented ($p<.01$). In addition, it was determined that latent variables (dimensions) showed high and significant relationships with each other.

Similarly, when Figure 2 is examined, it is seen that the standardized β values of the items vary between .75 and .86 in the responsibility (F1) dimension; between .71 and .85 in the social competence (F2) dimension; between .66 and .88 in the self-regulation (F3) dimension; between .74 and .88 in the empathy (F4) dimension. When the t values of the items were examined, it was found that each item was a significant predictor of the latent variable it represented ($p<.01$). In addition, it was observed that the standardized β values of the paths drawn from the sub-dimensions to the common latent variable ranged between .82 and .96, and all sub-dimensions were significant predictors of a common general factor.

Kline (2015) stated that in confirmatory factor analysis, items with a standardized β value of 40 and above should remain on the scale, while items above 1 and negative values should be removed from the scale. When the scale was evaluated according to this criterion, it was decided that all items had sufficient evidence of validity, in other words, they should remain on the scale.

Figure 1. Path diagram of SEARS-T (first order).

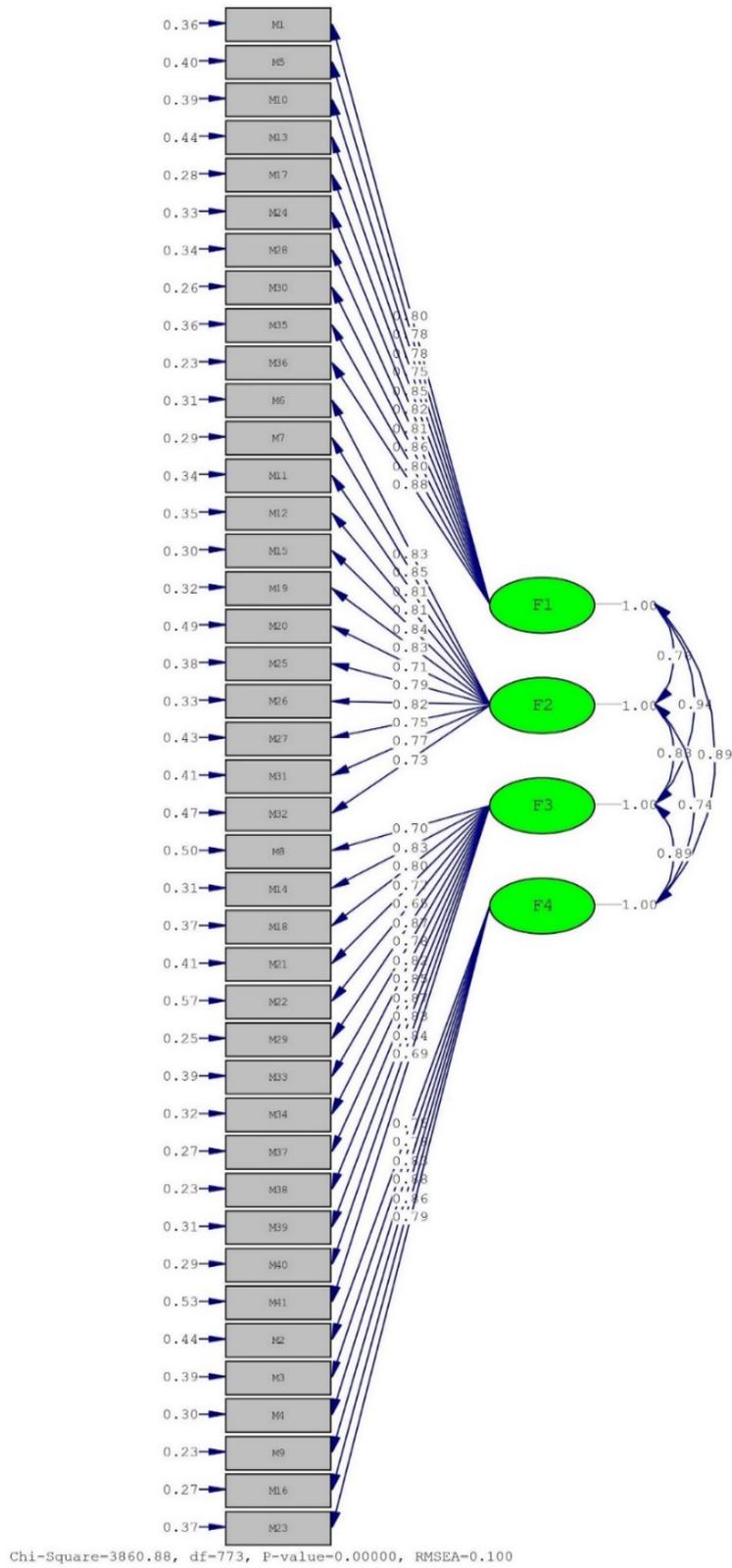
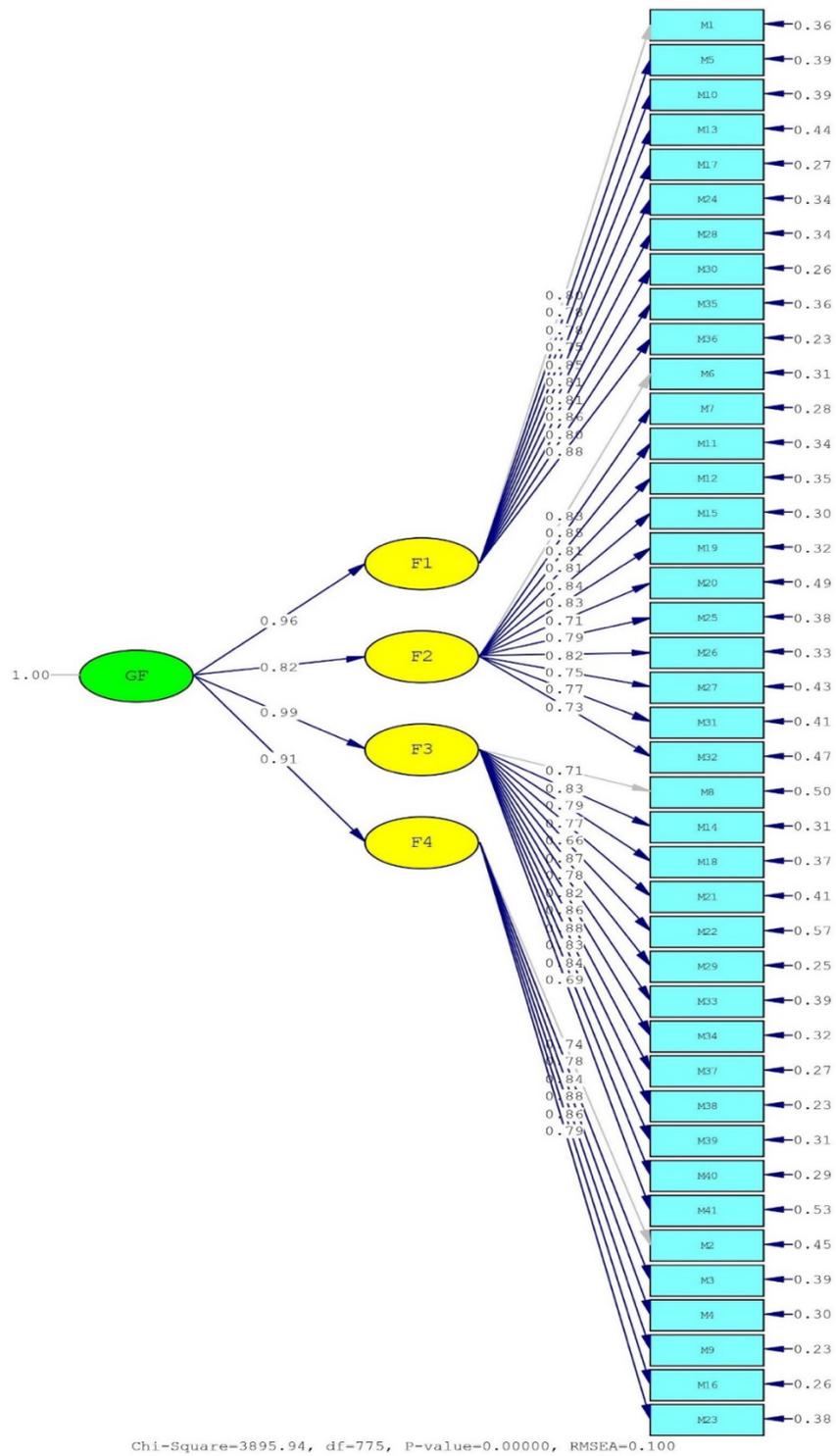


Figure 2. Path diagram of SEARS-T (second order).



Reliability

In order to provide evidence for the reliability of the scale, both Cronbach's alpha values and item-test correlations were calculated for the sub-dimensions and the total of the scale. The obtained results are presented in Table 4.

Table 4. Reliability Values

Dimension	Item	ITC	α	ITC	α	ITC	α	ITC	α	Total ITC	α	
Responsibility	M1	.793	.950							.747		
	M5	.755									.746	
	M10	.766									.707	
	M.13	.727									.727	
	M17	.805									.847	
	M24	.783									.764	
	M28	.792									.760	
	M30	.837									.824	
	M35	.786									.727	
	M36	.859									.814	
Social Competence	M6			.813						.668		
	M7			.822						.721		
	M11			.780						.793		
	M12			.790						.740		
	M15			.822						.693		
	M19			.803						.744		
	M20			.694	.953					.652		
	M25			.775						.656		
	M26			.794						.769		
	M27			.720						.795		
	M31			.751						.699		
	M32			.721						.606		
Self-Regulation	M8					.678				.697		
	M14					.791				.830		
	M18					.764				.804		
	M21					.751				.755	.982	
	M22					.652				.618		
	M29					.840				.839		
	M33					.776	.957			.746		
	M34					.817				.787		
	M37					.839				.801		
	M38					.857				.822		
	M39					.796				.821		
	M40					.826				.818		
	M41					.684				.664		
Empathy	M2							.727		.656		
	M3							.765		.691		
	M4							.779		.782		
	M9							.840	.921	.773		
	M16							.802		.786		
	M23							.746		.733		

Note: N=398; M=Item; ITC= Item test correlation

When Table 4 is examined, it is seen that the item total test correlations in the responsibility dimension vary between ($r = .72$) and ($r = .86$), in the social competence dimension vary between ($r = .72$) and ($r = .82$), in the self-regulation dimension vary between ($r = .65$) and ($r = .86$), and in the empathy dimension vary between ($r = .72$) and ($r = .84$). Field (2005) states that item-total test correlations should be 30 and higher. In this direction, it can be said that the scale items serve the purpose of measuring the feature to be measured.

Cronbach's alpha values were obtained as .950 for the responsibility dimension, .953 for the social competence dimension, .957 for the self-regulation dimension, .921 for the empathy dimension, and for the whole scale .982. Since Cronbach's alpha value above 70 indicates reliability (Nunally, 1994), it can be said that the scale produces reliable results in Turkish culture.

Interdimensional Relations

Pearson Product-Moment Correlation coefficient was calculated in order to reveal the relationships of the sub-dimensions of the scale with each other and their relationship with the total scale. The obtained results are presented in Table 5.

Table 5. Relationships Between the Sub-Dimensions of the Scale and the Total of the Scale

Dimensions	(R)	(SC)	(SR)	(E)	Total
Responsibility (R)	1	.735**	.903**	.836**	.935**
Social Competence (SC)		1	.797**	.699**	.896**
Self-Regulation (SR)			1	.847**	.965**
Empathy (E)				1	.886**
Total					1

When Table 5 is examined, it has been determined that the correlation coefficients between the sub-dimensions of the scale vary between .70 and .85, and there are positive significant relationships between the dimensions. It is seen that the sub-dimensions of the scale are in high level and significant relations with each other.

Conclusion, Discussion and Recommendations

The findings obtained as a result of the Turkish adaptation, validity and reliability study of SEARS-T, developed by Merrell (2011) to determine the social-emotional learning skills and psychological resilience of children and young adults, revealed that the scale is a valid and reliable measurement tool at the kindergarten and primary school level with 41 items and four sub-dimensions. First of all, descriptive statistics about the items were obtained to provide information about the general distribution, and it was determined that the responses of the participants to the items showed a normal distribution.

As a result of the first-order factor analysis applied to test the validity of the scale, goodness of fit values were obtained as $X^2= 3.860.88$ $sd=773$; $RMSEA=.10$; $SRMR=.063$; $CFI=.98$; $NNFI=.97$. In the second-order confirmatory factor analysis, the goodness of fit values were obtained as $X^2=3.895.94$ $sd=775$; $RMSEA=.10$; $SRMR=.063$; $CFI=.98$; $NNFI=.97$. These findings confirm that the scale has acceptable goodness-of-fit values and shows a similar structure to its original structure in Turkish culture.

In order to provide evidence for the reliability of the scale, both item-test correlations and Cronbach's alpha values for the sub-dimensions and the total of the scale were calculated. Item test correlations varied between $r=.72$ to $r=.86$ in the dimension of responsibility, between $r=.72$ and $r=.82$ in the dimension of social competence, between $r=.65$ and $r=.86$ in the dimension of self-regulation, and between $r=.72$ to $r=.84$ in the dimension of empathy. These findings show that the scale items serve the purpose of measuring the feature to be measured. When the Cronbach alpha values on the basis of sub-dimensions and in the whole scale were examined (responsibility .950; social competence .953; self-regulation .957; empathy .921 and total .982), it was determined that the scale produced reliable results in Turkish culture. Pearson Product Moments Correlation coefficient, which varies between .70 and .85, shows that the sub-dimensions of the scale are in high and significant relationships with each other and with the sum of the scale.

As a result of the literature review, it was determined that this scale, which was originally in English, was adapted to different cultures. Figueiredo et al. (2020) conducted an adaptation, validity and reliability study of SEARS-T to Portuguese on a sample of 235 children aged 5 to 10 years. As a result of the applied descriptive statistics on the distribution of the scale items before the confirmatory factor analysis, they found that the 20th item of the scale did not show a normal distribution and eliminated this item. For this reason, confirmatory factor analysis was performed on the remaining 40 items of the scale. According to CFA, the 4-factor structure of the scale was confirmed ($X^2= 2.86$, $p = .00$; $CFI = .84$; $TLI = .82$; $RMSEA = .08$). The internal consistency coefficient of the Portuguese SEARS-T was .94 in the responsibility dimension of the scale; .92 in the social competence dimension; .95 in the self-regulation dimension; .92 in the empathy dimension and .98 in the total scale. These findings showed that the scale produced reliable results in Portuguese culture.

On the other hand, Yue (2019), conducted the Chinese adaptation, validity and reliability study of SEARS-T through the kindergarten sample. The internal consistency coefficients of the Chinese SEARS-T were determined as .90 in the responsibility dimension; .93 in the social competence dimension; .93 in the self-

regulation dimension and .89 in the empathy dimension. These findings show that the scale also produces reliable results in Chinese culture. It is seen that the internal consistency coefficients obtained from the Turkish adaptation of SEARS-T and the internal consistency coefficients obtained from the Portuguese and Chinese adaptation are close to each other. This suggests that the internal consistency of the scale does not vary greatly between different cultures.

The validity and reliability study of the original form of the SEARS-T scale was composed of a large sample aged between 5 to 18 years. In this study, in which the Turkish validity and reliability of the scale were discussed, the age range was kept more limited as kindergarten and primary school children. In subsequent studies, it is recommended to expand the sample to include secondary and high school levels.

When the national literature is reviewed, it is seen that the Turkish adaptation studies of SEARS-Pre, which was developed by Ravitch (2013) and used to measure social and emotional skills in the preschool period, were conducted on children aged 3-6 (Yıldız and Akman, 2021) and children aged 5 (Ogelman et al., 2021). When the international literature is reviewed, it is seen that SEARS is adapted to different cultures (Stromgren and Couto, 2022; Figueiredo et al., 2020; Ashori and Yazdanipour, 2019; Yue, 2019) and has a wide use as a measurement tool in scientific research (Cheng and Ray, 2016; Yue, 2018; Dracinski, 2012; Campbell et al., 2022; Wilson and Ray, 2018; Ray et al., 2020; Wang et al., 2015; Bander, 2014; Cuskley, 2014). In this context, it is thought that the SEARS-C (for the 8-12 age group) and SEARS-A (for the 13-18 age group) forms based on self-evaluation, as well as the SEARS-P (for the 5-18 age group) form based on parental evaluation and the short forms that provide a quick evaluation, will contribute to the literature by conducting Turkish adaptation, validity and reliability studies.

The results of this study reveal that the SEARS-T-Turkish form is a valid and reliable measurement tool at the kindergarten and primary school levels. The SEARS-T Turkish form can be obtained from Par Inc and can be used by classroom teachers and school psychological counsellors to determine the social-emotional skills of kindergarten and primary school students, monitor their development, and test the effectiveness of curricula containing social-emotional learning goals.

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Data Availability: The data sets generated and analysed during the current study are available from the corresponding author on request.

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References

- Ashori, M., & Yazdanipour, M. (2019). Study of Persian version of social-emotional assets and resilience scale's psychometric properties in normal and deaf preschool children. *Empowering Exceptional Children Journal*, 10(3), 109-124. <https://doi.org/10.22034/CECIRANJ.2020.185738.1204>
- Arslan, S., & Akın, A. (2014). Social emotional learning scale: The study of validity and reliability. *Sakarya Üniversitesi Eğitim Fakültesi Dergisi*, 25, 23-34.
- Aygün, E., & Taşkın, Ç. (2017). 3. ve 4. Sınıf öğrencilerinin sosyal-duygusal öğrenme becerilerinin çeşitli değişkenler açısından incelenmesi [investigating of 3rd and 4th grade students' social-emotional learning skills with respect to different variables]. *Eğitimde Kuram ve Uygulama*, 13(3), 430-454. <https://doi.org/10.17244/eku.331910>
- Bander, B. (2014). *Social-emotional strengths outcomes in kindergarten students*. (Publication No. 5448) [Doctoral dissertation, University of South Florida]. USF Tampa Graduate Theses and Dissertations. <https://digitalcommons.usf.edu/etd/5448>
- Casel (2013). *Casel guide: effective social and emotional learning program preschool and elementary school edition*. Retrieved from <https://files.eric.ed.gov/fulltext/ED581699.pdf>.
- Casel (2020). *Casel's SEL framework: what are the core competence areas and where are they promoted?* Retrieved from <https://casel.org/casel-sel-framework-11-2020/>.
- Campbell, A. R., Sallese, M. R., Thompson, J. L., Burke, M. D., & Allen, M.L. (2022). Social-emotional and behavioural support for first- and second-grade black learners at risk for emotional and behavioural problems. *Journal of Positive Behaviour Interventions*, 1-12. <https://doi.org/10.1177/10983007221133525>
- Cheng, Y., & Ray, D. C. (2016). Child-centred group play therapy: impact on social-emotional assets of kindergarten children. *The Journal of Specialists in Group Work*, 41(3), 209-237. <https://doi.org/10.1080/01933922.2016.1197350>
- Creswell, J. W. (2020). *Eğitim Araştırmaları [Educational Research] (H. Ekşi, Trans. Ed.)*. Edam.
- Cuskley, T. A. (2014). *Student achievement: relations among instinct motivation, social-emotional skills and hope*. (Publication No. 3579635) [Doctoral dissertation, St. Jhon's University]. ProQuest Dissertations & Theses Global
- Dracinschi, M. C. (2012). The development of social and emotional abilities of primary school children. *Social and Behavioral Sciences*, 55, 618-627. <https://doi.org/10.1016/j.sbspro.2012.09.544>
- Field, A. (2005). *Discovering Statistics Using SPSS (2nd ed.)*. Sage.
- Figueiredo, P., Azeredo, A., Barroso, R., & Barbosa, F. (2020). Psychometric properties of teacher report of social-emotional assets and resilience scale in pre-schoolers and elementary school children. *Journal of Psychopathology and Behavioural Assessment*, 42, 199-807. Retrieved from <https://link.springer.com/article/10.1007/s10862-020-09831-6>
- Goleman, D. (2005). *Emotional Intelligence*. Bantam.
- Göl-Güven, M. (2021). SDÖ tanımı, kavramsal çerçevesi ve modeller (SDL definition, conceptual framework and models). Göl-Güven, M. (Ed.), *Çocuklukta Sosyal ve Duygusal Öğrenme (Social and Emotional Learning in Childhood)* (pp. 27-71). Yeni İnsan.
- Hu, L. T., & Bentler, P. M. (1999). Cutoff criteria for fit indexes in covariance structure analysis: conventional criteria versus new alternatives. *Structural Equation Modelling: A Multidisciplinary Journal*, 6(1), 1-55. <https://doi.org/10.1080/10705519909540118>
- Weissberg, R.P., Durlak, J. A., & Domitrovich, C. (2015). Social and emotional learning: past, present and future. Durlak, J. A. Domitrovich, C. Weissberg, R. P. Gullotta, T. P. (Ed.), *Handbook for Social and Emotional Learning*. (s. 3-19). Guilford.
- Kline, R. B. (2015). *Principles and Practice of Structural Equation Modelling*. Guilford.
- Ogelman, H. G., Saraç, S., Önder, A., Abanoz, T., & Akay, D. (2021). Turkish validity and reliability study for the social-emotional assets and resiliency scale for preschool. *International Journal of New Trends*

in Arts, Sports & Science Education (IJTASE), 10 (4), 231-242. Retrieved from <http://www.ijtase.net/index.php/ijtase/article/view/2>

- Ravitch, N. K. (2013). *Development and Preliminary Validation of the social-emotional assets and resiliency scale for preschool*. [Doctoral dissertation, University of Oregon]. University of Oregon Libraries. <http://hdl.handle.net/1794/13409>
- Ray, D. C., Angus, E. Robinson, H., Kram, K., Tucker, S., Haas, S., & McClintock, D. (2020). Relationship between adverse childhood experiences, social-emotional competencies and problem behaviours among elementary-aged children. *Journal of Child and Adolescent Counselling*, 6 (1), 70-82. <https://doi.org/10.1080/23727810.2020.1719354>
- Stromgren, B., & Couto, K. C. (2022). Psychometric properties of a Norwegian version of the social emotional assets and resilience scales-child-short-form. *Assessment for Effective Intervention*, 47(3), 179-184. <https://doi.org/10.1177/15345084211055473>
- Tabachnick, B. G., & Fidell, L. S. (2015). *Çok Değişkenli İstatistiklerin Kullanımı (Using Multivariate Statistics)* (M. Baloğlu, Trans.), Nobel.
- Totan, T. (2011). *Problem çözme becerileri eğitim programının ilköğretim 6. sınıf öğrencilerinin sosyal duygusal öğrenme becerileri üzerine etkisi [The effect of problem solving skills training programme on social emotional learning skills of 6th grade primary school students]*. (Publication No. 296494) [Doctoral dissertation, Dokuz Eylül University]. Dokuz Eylül University Libraries. <http://hdl.handle.net/20.500.12397/6784>
- Kabakçı, Ö. F., & Owen, F. K. (2010). Sosyal duygusal öğrenme becerileri ölçeği geliştirme çalışması (A Study of Development of Social Emotional Learning Skills Scale). *Eğitim ve Bilim*, 35(157), 152-166. Retrieved from <http://egitimvebilim.ted.org.tr/index.php/EB/article/view/293>
- MacCallum, R. C., Browne, M. W., & Sugawara, H. M. (1996). Power analysis and determination of sample size for covariance structure modelling. *Psychological Methods*, 1, 130-149.
- Milli Eğitim Bakanlığı [Ministry of Education] (2022a). *Sosyal Duygusal Becerilerin Geliştirilmesi Projesi [Social Emotional Skills Development Project]*. Retrieved from <https://orgm.meb.gov.tr/www/sosyal-duygusal-becerilerin-gelistirilmesi-projesi/icerik/2103>.
- Milli Eğitim Bakanlığı [Ministry of Education] (2022b). *Öğrenci Temelli Sosyal Duygusal Beceriler Projesi (SODBEP) [Student Based Social Emotional Skills Project]*. Retrieved from <http://orgm.meb.gov.tr/www/ogrenci-temelli-sosyal-duygusal-beceriler-projesisodbep/icerik/1987>.
- Merrell, K.W. (2011). *SEARS: Social Emotional Assets and Resilience Scales Professional Manual*. PAR.
- Milli Eğitim Temel Kanunu. (1973, 24 June). Resmi Gazete (Sayı: 14574) Retrieved from <https://www.resmigazete.gov.tr/arsiv/14574.pdf>.
- Nunnally, J. C. (1994). *Psychometric Theory*. McGraw-Hill.
- Wang, C., Couch, L., Rodriguez, G. R., & Lee, C. (2015). The bullying literature project: using children's literature to promote prosocial behavior and social-emotional outcomes among elementary school students. *Contemporary School Psychology*, 19(4), 320-329. Retrieved from <https://link.springer.com/article/10.1007/s40688-015-0064-8>
- Wilson, B.J., & Ray, D. (2018). Child-centered play therapy: aggression, empathy and self-regulation. *Journal of Counselling & Development*, 96, 399-409. <https://doi.org/10.1002/jcad.12222>
- Yıldız, F. Ö., & Akman, B. (2021). Validity and reliability study of the social-emotional assets and resiliency scale for preschool (SEARS-Pre). *Eğitim Kuram ve Uygulama Araştırmaları Dergisi (EKUAD)*, 7(1), 74-86. Retrieved from <https://dergipark.org.tr/en/pub/ekuat/issue/60222/930460>
- Yue, Y. (2018). *The effect of an Orff-based curriculum on social and emotional competence of migrant children in a suburban kindergarten in Shanghai*. (Publication No. 3531) [Doctoral dissertation, University of Pacific]. University of the Pacific Libraries. https://scholarlycommons.pacific.edu/uop_etds/3531

- Yue, Y. (2019). Reliability and validity of the Chinese version of the teacher form of social emotional assets and resilience scales for children. Paper presented at the *International Conference on Advanced Education and Management (ICAEM 2019)*, Shenzhen, China.