A Turkish Version of the School Social Behavior Scales (SSBS)

Müge YUKAY-YÜKSEL*

Abstract
Intended to enhance social skills instruction in Turkey, the present study highlights the process and outcome of creating a Turkish-language version of the School Social Behavior Scales (SSBS), originally developed by Merrell (1993). The social skills of the Turkish pre-and elementary school students were based on the Likert scale. The analyses of the data obtained from 467 students and their teachers were carried out on the linguistic equivalency, item-total and item-remainder analyses, confirmatory factor analyses, criterion validity, and reliability analyses of the Turkish conversion of the SSBS. The results of the analyses of linguistic equivalency reflected significance for each item of p<.001. A level of significance of p<.001 was found by means of the item-total, item-remainder, and discrimination analyses. Reliability values ranging between r=.91 and r=.98 were obtained by the Cronbach coefficient alpha, Spearman Brown, and Guttman Split-Half techniques. These reliability coefficients display a similarity with those for the original version. The data obtained by means of the Matson Evaluation of Social Skills with Youngsters (MESSY) and sociometric technique were evaluated and found to bear statistical significance (p < .05). Based on the findings, it may be stated that the Turkish conversion of the SSBS may be used with Turkish samples and that it is a valid and reliable measurement tool.

Key Words
Social Skills, Social Competence, Antisocial Behavior.

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Educators, teachers, and parents in today’s societies are in constant pursuit of ways to help children achieve academic and social success and, by the same token, they seek to discover and eliminate the causes of failure. The goal of these efforts is to ensure adjustment to the rapid changes occurring both in the society and in the field of science. The process of adjustment on the part of children to their environment commences on their first day of school. Various studies have shown that this is the moment children discover the existence of others as an outcome of initiating interpersonal communication. Furthermore, studies have shown that children whose relationships with their classmates are poor tend to perform at a lower level of academic achievement as well as exhibit discontentment within the family circle (Brodeski, 2007; Butcher, 1999; Lewis, Sugai, & Colvin, 1998).

By contrast, children whose levels of social skills are high represent individuals who manage to adjust to their environment, succeed in avoiding conflict, and maintain good communications with others (Brodeski, 2007; Church, Gottschalk, & Leddy, 2003; Matson, & Ollendick, 1988). According to the findings of developmental psychology, the individual, particularly during the grade school years, experiences the need for social skills as a component of the discovery of others, so as to establish good relations with them (Bacanlı, 1999a; Bacanlı, 1999b). Social skills are learned behaviors that allow individuals to enter into and sustain positive relationships within their circle, express their positive and negative feelings in an appropriate manner, empathize, maintain composure in stressful situations, and handle any problems encountered (Akkök, 1999; Howing, Wodarski, Kurtz, & Gaudin, 1990; Matson, & Ollendick, 1988). Social skills are denoted by three key terms: social competency, antisocial behavior, and social adjustment (Asher, & Taylor, 1981; Connolly, 1983; Merrell, 1993).

Social competency signifies a series of behaviors that allow the child and adolescent to functionally adapt to social life. Children who are emotionally troubled lack the skill to establish and sustain successful relationships with their peers and teachers. Under normal circumstances, they experience inappropriate behavior and emotions. As this definition suggests, the fundamental difficulties they experience lie in the area of social competency and interpersonal relationships (Gresham, 1997). The development of social competency is a critical factor whose impact extends well beyond childhood, for it is believed that its effect can
persist and be reflected in the organization of one’s mature years. It is noted that social competency provides for the possibility of good peer relationships and exerts a positive impact on academic success (Asher & Taylor, 1981). Moreover, it is indicated that a number of negative outcomes that emerge in life later are the product of insufficiently developed social competency in childhood, such as childhood guilt, problems in mental development and antisocial behavior (Dodge, Coie, & Brakke, 1982; Loeber, 1985).

Antisocial behavior may be described as behavior that hinders appropriate socialization and leads to antisocial outputs such as peer rejection and the inability to get along well with others (Merrell, 1993). Antisocial behavior in the present study may be identified as the child’s disposition or temperament that gives rise to the behavior of an antisocial structure such as violating the rights of others as well as the behavior that finds expression as antisocial behavior. While these problem behaviors may not be intimately related to the social structure, they resemble antisocial behavior that stems from the construction of self.

Social skills can be classed into two categories—social competence and antisocial behavior—as well as social adjustment, the aspect that the student’s relationships with teachers and classmates at the outsets of school life. Social adjustment vis-à-vis teachers are connected to their expectation that the students will obey the school rules. Social adjustment with regard to their peers is related to the dynamics of developing appropriate social adjustment during free periods and recess. A number of investigators have stated that these two kinds of adjustment are interrelated and develop in tandem and contribute to the process of social development (Asher, & Taylor, 1981; Choi, & Kim, 2003; Connolly, 1983; Merrell, 1993).

Specialists devoted to instilling social skills in the individual have carried out various studies on social skills according to age group and grade in school and developed and implemented educational programs (McConaughy, Achenbach, & Gent, 1988; Gresham, & Reschly, 1987; Walker, Steiber, & Eisert, 1991; Yukay, 2003; Yüksel, 1997). Numerous tools of measurement have been developed to evaluate these studies by utilizing different methods. The methods of choice are direct observation, behavior rating scales, sociometric approaches, interviewing techniques, and self evaluation by the subject. The implementations comprised of different combinations of these methods have provided
for the possibility of evaluating the levels of social competency of the individuals in a more realistic manner (Elliott, Sheridan, & Gresham, 1989; Merrell, 1993, 2001). On the other hand, methods that can be used in measuring social skills reveal differences according to the structure and the level of age group on which the study is to be conducted. In this context, evaluation studies in Turkey have shown that various social skills instruction programs aimed at the acquisition of the social skills by the individual have been developed and carried out. It is indicated that direct observation of behavior and scales of behavior rating have typically been used to measure social skills (Çoban, 2007; Ekinci, 2006; Kamaraj, 2004; Yüksel, 1997).

The present study is an outgrowth of the idea that a Turkish conversion of the SSBS designed by Merrell (1993) would bolster efforts aimed at providing social skills instruction in Turkey and identify the social skill levels of children in pre- and elementary school and compensate for the deficiency in the field. These scales are focused on teacher observations and their ratings of the behavior of students in academic and social settings. When the theoretical construct on which the scales are based in taken into consideration, it may be described as possessing the capacity of accounting for the ratings, including all the subfields denoted by “social skills.” The scales can be used as a whole as well as on the level of any of the individual scales on their own.

Method

Sample

The sample for the present study was composed of students and teachers in the elementary schools of the Ministry of National Education in the Istanbul sub-province of Kadıköy. The analyses of the language equivalency involved the participation of 32 English language grade school instructors employed in the same province. For item analyses, confirmatory factor analysis and the reliability analyses drew on the data collected from the SSBS forms filled out by 211 grade school teachers. For criterion validity, a study was conducted on 168 grade school students aged 9-14 years and a separate study was carried on 88 third grade students.
Procedure

In the process of converting the SSBS into Turkish, first, all the English-language items in the original were translated by the present investigator and five school counselors who possessed fluency in English. Each term was translated by each of the five instructors. These translations were compared by the present researcher and any discrepancies were resolved by joint consideration or in consultation with other specialists of English. Little variation was exhibited in the translations. The end result was that the Turkish translation was adjudged language equivalent by those experienced in the field of English-language instruction. For the purpose of investigating the language equivalency of the scales, a study was carried out on 32 language instructors as subjects. The original SSBS was administrated to these teachers and, after a one-week interval, the Turkish version was reimplemented. The correlation of the scores recorded for the two versions was regarded as the linguistic criterion of the Turkish version. In the process of executing the translation of the SSBS, the validity and the reliability analyses for the original version were confirmed by those for the Turkish version.

Analyses for construct and criterion validity were executed to determine validity. Pearson product-moment correlation coefficient was used for the item-total and item-remainder analyses of the scale items and for the discrimination of the items (through comparison of the sub and top item groups in the 27th percentile) independent group t test was used. A confirmatory factor analysis was conducted to determine the construct validity of the scales. In confirmatory factor analysis, the existence of six subscales in the scales for “Social Competence” and “Antisocial Behavior” in the original version was examined. For criterion validity, correlations between the SSBS and the Turkish translation by Bacanlı and Erdoğan (2003) of the MESSY scale were calculated. In addition, correlations for the sociometric evaluations of a group of third grade students were obtained by means of the SSBS, and the results were utilized in the criterion validity.

The test-retest and the standard error of measurement were calculated to gauge reliability. The internal consistency of the scales was tested by Cronbach coefficient alpha, Spearman Brown and Guttman split-half techniques. The reliability of the test and the closely related standard error of measurement were used to test and describe the reliability of the individual scores (Balcı, 1997; Tekin, 1993; Tekindal, 1997; Tezbaşaran, 1996).
Results

For the analyses of the linguistic equivalency, the English versions of the scales was administrated to 32 English-language instructor employed by the Kadıköy sub-provincial school district and was followed one week later by the implementation of the Turkish version. The data obtained permitted a correlation between the scales for “social competence” and “antisocial behavior” and the relation between the subtests of these scales. The results of the analyses indicated that a correlation between each of the items bore a significance of p<.001. Exceptionally, the significance level for the items 1, 4, 11, and 19 on the “social competence” scale stood at p<.05. But in the course of conducting the analyses of subscales, this difference escaped noticed. For this reason, no alteration of the items was initiated. The assumption that the Turkish-language scale was equivalent to that of the English-language scale was supported.

Because the item analysis of the scales in the original version was part of the content validity analyses, it was also included among the validity analyses in the present study. The item-total, item-remainder and discrimination analyses of the scales were carried out on the 211 forms filled out by the grade school teachers. The result of the item analysis showed a item-total test correlation varying between .51 and .91 and the t values related to the difference in the item score 27th percentile of the top and sub lower groups ranged between 4.44 (p<.001) and 20.19 (p<.001). The results bear a correlation with the results in the developmental phase of the scales in the original version.

Confirmatory factor analysis that was carried out to determine construct validity of the scales took place in two stages. The first stage was to determine, prior to evaluating the results of the confirmatory factor analyses of the subfactors contained in the original factorial construction of the scale, whether or not the estimated values exceeded the theoretical limits (Baloğlu & Karadağ, 2008). In light of the results, it was decided that the theoretical limits had not been surpassed. For a scale of the modification indices for the confirmatory factor analysis, a Chi-square value and statistical significance levels were determined ($\chi^2=859.39$, df=461, p<.01). The low Chi-square value in conjunction with the degree of freedom confirms that the data collected from the proposed model is acceptable. In addition, other modification indices for the model (GFI=0.83, AGFI=0.87, RMSEA=0.12, CFA=0.86) also indicate that it is partially acceptable. Based on this outcome for the
standard modification values, results serve to confirm the modeled factorial structure. Nonetheless, critical modification indices were identified in the confirmatory factor analysis that point up problems in the model. Table 1 presents correlations undefined in the study model, but which may present drawbacks in terms of the model. As a natural consequence, the number of elements in the modification indices corresponds to the number of problematic in the model. As an outcome of the confirmatory factor analysis 15 modifications have been proposed. These modifications are concentrated on the relationships between the observable variables (the scale item) and the implicit variables (the scale factors). Furthermore, a number of items of the factor load values obtained in the confirmatory factor analysis exhibited a desirable level (> 0.30). As a result, when the values obtained in the confirmatory factor analysis are taken into consideration, they partially support the original factor structure of the SSBS.

### Table 1

**Modification Indices for the Confirmatory Factor Analysis Model of the Scale**

<table>
<thead>
<tr>
<th>Item No</th>
<th>Factor</th>
<th>Drop in Chi-Square value</th>
<th>Estimated parameter</th>
</tr>
</thead>
<tbody>
<tr>
<td>Social Competence</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>Interpersonal skills</td>
<td>8.3</td>
<td>-112.01</td>
</tr>
<tr>
<td>8</td>
<td>Academic skills</td>
<td>29.1</td>
<td>6.25</td>
</tr>
<tr>
<td>10</td>
<td>Interpersonal relations</td>
<td>30.1</td>
<td>5.09</td>
</tr>
<tr>
<td>18</td>
<td>Interpersonal relations</td>
<td>15.1</td>
<td>0.54</td>
</tr>
<tr>
<td>4</td>
<td>Self-management skill</td>
<td>11.3</td>
<td>11.86</td>
</tr>
<tr>
<td>6</td>
<td>Self-management skill</td>
<td>9.2</td>
<td>-98.07</td>
</tr>
<tr>
<td>22</td>
<td>Self-management skill</td>
<td>13.9</td>
<td>6.07</td>
</tr>
<tr>
<td>Antisocial Behavior</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Hostile-irritable behaviors</td>
<td>16.7</td>
<td>5.13</td>
</tr>
<tr>
<td>17</td>
<td>Hostile-irritable behaviors</td>
<td>9.54</td>
<td>6.39</td>
</tr>
<tr>
<td>18</td>
<td>Hostile-irritable behaviors</td>
<td>10.1</td>
<td>-2.39</td>
</tr>
<tr>
<td>8</td>
<td>Antisocial-aggressive behaviors</td>
<td>10.9</td>
<td>-4.64</td>
</tr>
<tr>
<td>11</td>
<td>Antisocial-aggressive behaviors</td>
<td>16.9</td>
<td>5.69</td>
</tr>
<tr>
<td>26</td>
<td>Antisocial-aggressive behaviors</td>
<td>8.7</td>
<td>2.39</td>
</tr>
<tr>
<td>21</td>
<td>Demanding-disruptive behaviors</td>
<td>9.8</td>
<td>8.98</td>
</tr>
<tr>
<td>27</td>
<td>Demanding-disruptive behaviors</td>
<td>7.9</td>
<td>6.74</td>
</tr>
</tbody>
</table>
Criterion validity: a statistically significant positive correlation obtained between the total scores obtained from the SSBS and the subscale of the MESSY “Positive Social Behaviors” \( (r = .59; p < .01) \). A statistically significant positive correlation held between the total SSBS scores and the subscale of the MESSY “Antisocial Behavior” \( (r = .17; p < .05) \). As for the subscales, the correlation obtained between the SSBS “Social Competence” subscale and the total scores obtained from MESSY was negatively significant \( (r = -.27; p < .01) \). A positively significant correlation was exhibited between the SSBS “Antisocial Behavior” subscale and the MESSY “Positive Social Behaviors” subscale \( (r = .32; p < .01) \), but it bore a negative significant correlation with the MESSY “Antisocial Behavior” subscale \( (r = -.38; p < .01) \). Statistically, the scores from the SSBS “Antisocial Behavior” subscale displayed a significant positive correlation with the total scores from MESSY \( (r = .21; p < .01) \). No statistically significant correlation was found between the scores of the SSBS subscale “Antisocial Behavior” and the MESSY “Positive Social Behaviors” and “Antisocial Behavior” subscales.

Another validation study carried out on the SSBS pertained to the sociometric relation. It may be stated that the sociometric results based on the student ratings displayed a relation with the teacher ratings for the School Social Behavior Scales. A comparison of the scores obtained from the group scales determined by the ratings displayed a significant level of differentiation among the groups. Thus, the students who were most frequently preferred by their classmates were rated higher in social competency by the teachers and antisocial behaviors were rated lower. Students who were seldom or never preferred were seen to possess a low social competency level and a greater number of antisocial behaviors.

The reliability studies of the scales: the continuity coefficient was tested by the test-retest and the internal consistency was tested by Cronbach coefficient alpha, Spearman Brown and Guttman split-half techniques. To carry out the test-retest analysis, the teachers who rated the students for the item total, item remainder and the discrimination analyses were assigned code names and requested to rate the same students \( (N = 30) \) once more two weeks later. The results \( p < .001 \) exhibited a meaningful level of significance \( (r = .99) \). These analyses were carried out for the subtests of two scales separately. The results \( p < .001 \) were significant. The internal consistency of the scale was tested by Cronbach coefficient alpha, Spearman Brown and Guttman split-half techniques. The reli-
ability values obtained between r=.91 and .98) were similar to those for the original version.

Table 2 presents the measurement of the internal consistency of the School Social Behavior Scales and the subtests.

Table 2.
Internal Consistency of the “Social Competence” and “Antisocial Behavior” Scales and Their Subtests

<table>
<thead>
<tr>
<th></th>
<th>Cronbach coefficient alpha</th>
<th>Spearman Brown</th>
<th>Guttman Split-Half</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n  r  p</td>
<td>n  r  p</td>
<td>n  r  p</td>
</tr>
<tr>
<td><strong>Social Competence</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Interpersonal Skills</td>
<td>211 .98 .00</td>
<td>211 .96 .00</td>
<td>211 .96 .00</td>
</tr>
<tr>
<td>Self-Management Skills</td>
<td>211 .95 .00</td>
<td>211 .94 .00</td>
<td>211 .94 .00</td>
</tr>
<tr>
<td>Academic Skills</td>
<td>211 .94 .00</td>
<td>211 .95 .00</td>
<td>211 .95 .00</td>
</tr>
<tr>
<td><strong>Antisocial Behavior</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hostile-Irritable</td>
<td>211 .96 .00</td>
<td>211 .96 .00</td>
<td>211 .96 .00</td>
</tr>
<tr>
<td>Antisocial-Aggressive</td>
<td>211 .95 .00</td>
<td>211 .93 .00</td>
<td>211 .92 .00</td>
</tr>
<tr>
<td>Demanding-Disruptive</td>
<td>211 .93 .00</td>
<td>211 .92 .00</td>
<td>211 .91 .00</td>
</tr>
</tbody>
</table>

**Discussion**

The purpose of the present study was to adapt the SSBS (Merrell, 1993) into Turkish and investigate the validity and reliability of the Turkish version. The outcome of the study on the linguistic equivalency revealed a correlation coefficient for the original and converted scales ranging between r=.97 and r=.62 for “Social Competence”, between r=.88 and r=.62 for “Antisocial Behavior”, with a level of significance of p<.001. This result indicates that the scale items of the Turkish version are equivalent to those of the original.

Following the item-total and item-remainder analyses of the scales, the correlation coefficient of the “Social Competence” scale of SSBS ranged between r=.88 and r=.44 and that of the “Antisocial Behavior” ranged between r=.92 and r=.48. In addition, the results of the t test for the comparison of the top and subgroups reveal that they possess sufficient power to discriminate the items. These results exhibit a similarity to those for the original version.
Construct and criterion validity were examined for the validity study of the scales. The factor load values obtained from the confirmatory factor analysis revealed the numerous items possessed a desirable level (>0.30). These values partially preserve the original factor structure. In order not to distort the structure of the scales in the original version, the order of the items included in the subscales was left unchanged.

For the study on criterion validity of the scales, a correlation ranging between r=.21 and .44 were determined by the scores of the SSBS and the MESSY. No correlation between the subscale “Antisocial Behavior” of the SSBS and the subscales of the MESSY was discovered. This may be explained by the fact that one of the scales is rated by the teachers and the other by the students, for what is described by the teacher as antisocial behavior may not be perceived as antisocial by the student. Moreover, it should be recalled that, when rating the behaviors, positive social behaviors are very quickly incorporated by the self and may become permanent while behaviors classed as antisocial may just as rapidly undergo alteration.

Examination of relation of the SSBS by the sociometric technique revealed that the two tools of measurement were related. A parallel was observed between the ratings of the students by the teachers with regard to social relations and those by the students themselves. The sociometric technique has been utilized in numerous studies to evaluate social skills and to which similar results were obtained (Bierman, & Furman, 1984; Çalışkan, 2007; Hepler, & Rose, 1988; Hatipoğlu, 1999).

The internal consistency of the SSBS was calculated individually for two scales and for their respective subscales. The results were significant at a level of p<.001. The coefficients for the reliability of the subscales, which were obtained by Cronbach coefficient alpha, Spearman Brown and the Guttman Split-Half ranged between r=.98 and r=.91. The data collected from the implementations for the test-retest method bore a high correlation of p<.001. The correlation coefficient obtained from the subscales varied between r=.83 and r=1.00. These results indicate that the SSBS possess a strong reliability.

In conclusion, the present study demonstrates that the Turkish version of the SSBS is appropriate for use in evaluating the level of social skills of students in the first and second grades of elementary school. Moreover, future studies investigating the various sociodemographic variables and their relation among different groups will augment the utility of the scales.
References/Kaynakça


Gresham, F. (1997). Social competence and students with behavior disorders: Where we’ve been, where we are, and where we should go. *Education &Treatment of Children, 20*(3), 233-250.


