The Adaptation of Scale of School as a Caring Community Profile for Secondary School Students into Turkish: Adaptation of School as a Caring Community Scale

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Abstract

Schools are social organizations where children came together from different cultures. Creating sense of community is important for schools for the formation of social culture. In schools where sense of community is formed, it is observed that students treat each other with respect, are caring and sharing and have high academic success, and rates for grade repetition and dropping out are low. The purpose of this study is to adapt The Scale of School as a Caring Community Profile into Turkish and perform validity and reliability analyses. The study group of this research conducted consists of 478 secondary school students from public primary education schools in Ankara city center during the 2011-2012 academic year. Selection of study group is predicated on two criteria (analysis unit), the school type (public secondary school) and the districts where schools are located. Turkish translation of Lickona and Davidson’s (2003) “School as a Caring Community Profile” scale is used as a data-gathering tool. Validity of language was screened in the first section of the research and was followed by receiving expert opinion on content validity. The scale was applied to 478 students after the first section was completed. Confirmatory Factor Analysis (CFA) was conducted to confirm whether or not the scale’s three-factor structure forms a valid structure. Based on the findings the scale has high construct validity and reliability coefficients.

Keywords: School as a Caring Community profile, Scale Adaptation, Perceptions of Student Respect

1. Introduction

The societal function of schools is to contribute to the social culture, to teach how to live together and share with each other and therefore, to socialize the individuals. Schools are social institutions where children from families with different traditions and values compose. It is important for the schools to create community perception in order to form societal culture in these institutions. In schools where sense of community is formed, it is observed that students treat each other with respect, are caring and sharing and have high academic success, and rates for grade repetition and dropping out are low. Therefore, practices should be applied to students during their education in order for them to gain sense of community.

Area of use of the word ‘community’ can be defined in various ways based on its context, the location where it represents and the respective group. The community concept is described in the Turkish Language Association dictionary as “All people living together on the same piece of land who cooperate to provide their fundamental interests, society” (www.tdk.gov.tr). Ozankaya (1977) defines the community concept as a continuous complex relationship as a whole which is formed by people who cooperate to protect themselves, to maintain and to realize fundamental interests and that has a specific geographic location and a common climate. Cevizci (2010), however, defines the community as an entirety that is formed by institutions, diverse styles of relationships, organizational forms and norms, etc. in which groups of people live and interrelations are a part of its elements. On the basis of these definitions it may be suggested to define the community concept as the entirety with shared values and norms that has cooperation and interrelation among its members. Individuals should have the sense of community in order for this cooperation and interrelation to generate.
The sense of community has been the research subject not only in sociology, but also in various disciplines. Based on Peterson, Speer and McMillan’s (2008) remarks, the sense of community is the key to the theoretical structure of community psychology and other disciplines. The sense of community has been the research subject in neighborhood researches (Brodsky and Marks, 2001; Colombo, Mosso and DePiccoli 2001), psychological therapy programs (Herman, Onaga, Pernice-Duca and Ferguson 2005; Kim, 2016), and in researches conducted at schools (Sheers, 2010; Cummings, 2016; Soha, Osman, Salahuddin, Abdullah, & Ramleea, 2016). In the respective researches (Tichnor-Wagner and Allen, 2016; Siskos, Papiaoannou and Proios, 2011; Sheers, 2010; Schaps, 2003; Lee, 2008; Solomon, Battistich, Watson, Schaps, and Lewis, 2000) it is elicited that students’ academic success is higher and behavioral problems are lowered, and that the students refrain from violence in the schools where students have high sense of community. For this reason, bringing sense of community in the schools is important. Dewey (1958) argues that school administrators and teachers play important role in bringing the sense of community in the schools (Cited by Sheers, 2010). Therefore, primarily, it is important for the administrators and teachers to be respectful and caring towards each other and other staff, to follow the rules and be attentive to school property in order for them to be the role models of students.

Based on Schaps (1998), Sanchez, Colon and Esparza’s (2005) remarks, children have the need to belong, to affiliate and to make friendship in the schools. Sheers (2010, 12) defines the sense of community in the school as “… the student having the sense of commitment and belonging towards and participating in the school …”. There are certain roles that schools must undertake in order for the children to affiliate with the schools. When a school meets a student’s psychological needs, the student presents affiliation towards school norms, values and goals (Schaps, 2003). Sergiovanni (1994) argues that the sense of community creates common values and thoughts by bonding the teacher and the student. The sense of community in schools is the state of student where the student feels valued, accepted and recognized by his/her teachers or classmates (Schaps, Lewis and Watson, 1997). As a result of these explanations, the sense of community can be defined as the individuals having the sense of belonging to a group with common norms, goals and values who participate in group activities and take role in decision making efficiently, while the members of the group are caring and supportive towards each other.

One of the duties of the schools is to socialize the children. In other words, the school creates a common citizenship behavior by socializing individuals from different cultures and teaching them how to live in harmony (Bursalioglu, 2003). The importance of sense of community in education to create citizenship behavior started to be emphasized by Dewey (Sheers, 2010). Dewey (1958) stated the necessity of schools to form a community where common experiences are shared (Cited by Sheers, 2010, 12-13); however, Sergiovanni (1984) suggests that people have the need to be a part of a group by working collaboratively and to have the sense of belonging towards the group. As seen, the desire of humans to become a member of a group, in other words the need to feel the sense of belonging is a basic necessity. Sheers (2010) and Tichnor-Wagner and Allen, (2016) argue that schools can enable students to develop the sense of belonging and community and can affect the students’ academic success, their restfulness and participation positively.

The sense of community has a positive impact on the school staff and the students. Compared to traditional schools, humanitarian schools (Hoy and Miskel, 2010) are institutions where the sense of community among the staff and the students are substantially observed. Compared to humanitarian schools with pupil control ideology, more derangement among the teachers, low morale and motivation and micromanagement of the administrators are observed at the traditional schools with pupil control ideology (Appleberry and Hoy, 1969). Compared to humanitarian schools, there are more alienated students in traditional schools (Hoy, 1972). A healthier school climate is provided that enables the student to develop a more mature personality at the humanitarian schools (Deibert and Hoy, 1977). Humanitarian school climate is in close relation with students’ motivation, problem solving skills, willingness to learn (Lunenberg, 1983) and developing positive perception about the quality of school life (Lunenberg and Schmidt, 1989).

It is elicited that at schools where sense of community is developed, academic success of students is high, students’ social and emotional skills are developed (Solomon et al., 2000; Schaps, 2003; Sanchez, Colon and Espana, 2005) and students refrain from bad habits such as violence and substance abuse (Resnick et al., 1997; Sanchez, Colon and Esparza, 2005), they are more involved in school activities, the absenteeism is low and the size of the school has an inverse relationship with the sense of community (Bryk and Driscoll, 1988). Rovai (2001a) argues that students with strong sense of community are committed to the group goals and are satisfied with the learning process. In order to develop strong sense of community at schools, trust should be fostered between school staff and students due to mutual dependence. Trust at school is important because it enhances cooperation (Tschannen-Moran, 2001),
increases lucidity (Hoffman, Sabo, Bliss and Hoy, 1994), enables group commitment (Zand, 1997), increases student success (Goddard, Tschannen-Moran and Hoy, 2001; Hoy, 2002; Bryk and Schneider, 2002).

When literature is examined, it is seen that there is a different conceptual frame for the sense of community and that there are many measuring instruments (Bishop, Chertok and Jason, 1997; Buckner, 1988; Cantillon, Davidson and Schweitzer, 2003; Glynn, 1981; Hughey, 1999; Long and Perkins, 2003). But it is seen that sense of community makes a reference to psychological sense of community and grounds on McMillan and Chavis’ (1986) sense of community model. According to this model, the Sense of Community Index scale is comprised of four dimensions: meeting the needs (members’ perception of fulfilling their needs by the community), affiliation (individuals’ sense of belonging), effect (interaction between the individual and the community) and emotional relationship (members’ perception of common date, location and experiences) (Chavis, Lee and Acosta, 2008; Peterson, Speer and McMillan; 2008). Another scale that was used as a model was School as a Caring Community Profile scale introduced by Lickona and Davidson (2003). According to this model, the scale consists of two sections: teacher and student dimensions. Student dimension is comprised of three dimensions: perceptions of student respect (behaviors of students towards each other, school staff, their teachers and school property), perceptions of student friendship and belonging (relationships between students and embracing each other) and perceptions of students shaping of their environment (following the rules and participation in the school). Teacher dimension is comprised of two dimensions: perceptions of support and care by and for school staff; and perceptions of support and care by and for parents. School as a Caring Community Profile scale with three subdimensions introduced by Lickona and Davidson was used due to the fact that this study is applied to the students.

The purpose of this study is to investigate the validity and reliability of School as a Caring Community Profile scale (SCCP scale) introduced by Lickona and Davidson (2003) on sample secondary school students in Turkey. For this purpose, following subgoals will be examined in the research:

- Are answers given to SCCP scale explicable with three-factor model?
- Are disturbance terms in the model irrelevant?
- Does every item on SCCP scale have factor load not equal to 0?
- Is the single-factor structure of SCCP scale applicable to both schoolboys and schoolgirls?

2. Method

2.1 Study Group

The study group of this research consists of 478 students from public secondary schools in the city of Ankara within the Metropolitan Municipality boundaries. Selection of study group is predicated on two criterion (analysis unit); the school type (public secondary school) and the districts where schools are located. 58.4% (n=279) of the students participated in the research are girls and 41.6% (n=199) are boys. When the breakdown of their grades are examined, 41.6% (n=199) of the students are at 6th, 27.2% (n=130) are at 7th and 31.2% (n=149) are at 8th grade.

2.2 Procedure

School as a Caring Community Profile scale (SCCP) is developed by Lickona and Davidson (2003). The scale is developed to assess students’ sense of community. Original scale is comprised of 42 items. In the first section of the scale, there are 25 items that assess students’ sense of community and contains three dimensions. In the dimension of perceptions of student respect, there are 9 items; in the dimension of perceptions of student friendship and belonging, there are 9 items; and in the last dimension of perceptions of student shaping of their environment consists of 7 items. The second section of the scale consists of 17 items that assess the sense of community of the adults in the school. This research is limited to the students in the school, therefore, the study is conducted with the first 25 items.

For the adaptation of the SCCP scale, necessary permissions were obtained by e-mail correspondence from Lickona and Davidson (2003) who developed the scale. Adaptation studies of Hambleton and Patsula (1999) elaborate the adaptation stages in articles that were based on the guidebook prepared by International Test Commission (ITC) and were specifically inspired from Geisinger’s study (1994) and emphasize that exclusion of some articles or having new classifications may be seen. In light of this information, the original SCCP scale was primarily translated into Turkish by five experts in the field who have the full command of English and Turkish, and reliabilities of the translations were examined by language and content comparison. At the end of the examination, statements in the scales that were translated into Turkish were presented to the experts for their review and corrections were made based on their recommendations. In the main study, a larger study group (N=478) was applied the confirmatory factor analysis to validate the scale’s factor structure.
2.3 Data Analysis

High scores obtained from the scale exhibit the high sense of community. SCCP scale is a 5-point Likert-type scale (Always, very frequently, occasionally, rarely, never). CFA is applied in order to investigate what kind of factor structure SCCP scale will reveal based on the data provided from Turkish students and to investigate to what extent the supposed structure conforms to the data gathered.

Examinations were primarily made to investigate whether or not univariate and multivariate outliers are detected in the data set. When the standardized surplus value is higher than 3.29, it can be suggested that an outlier is detected (Tabachnick and Fidell, 2001; Stevens, 2002). In addition to these, Cook’s distance (Cook and Weisberg, 1982; Cited by Stevens, 2002) and leverage value were looked for in order to determine whether or not the surplus value affects other values (Kalayci, 2009, 296). After all these analyses are completed, no outliers are detected in the data set. Likewise, the great mahalonobis distance \( (X^2_{25,0.00})=52.620 \) was not observed; therefore, it has been decided that there is no multivariate outlier in the data set. In addition to these studies, it has been confirmed that a missing value is not observed; and multicollinearity among items is not observed based on tolerance, VIF and condition index. In other words, condition index greater than 30 with tolerance approaching 0 in the data set, VIF greater than 5 - 10 and two variances greater than 0.50 were not observed. Coefficients of kurtosis and skewness were examined for normality test. As a general rule, existence of coefficients of kurtosis and skewness between \([+1, -1]\) ranges provides univariate normality. In addition to this, based on George and Mallery (2003), the existence of coefficients of kurtosis and skewness between \(+2\) and \(-2\) shows the normal distribution of the data set. It is determined that the distribution of points “observed” in most of the items of data set do not exhibit skewness or kurtosis.

3. Results

3.1 Confirmatory Factor Analysis (CFA) Results

CFA is a validity method used for adaptation of measuring instruments developed specifically in other cultures and other samples. Sumer (2000) argues that CFA is an analysis which grounds on a theoretical basis and evaluates to what extent the factors formed by multi variables conform to actual data. In other words, CFA aims to examine to what extent a predetermined or pre-built structure is verified with the data gathered. While in the exploratory factor analysis, data’s factor structure is determined on the basis of factor loads (weights) without any preset expectation or hypothesis; CFA is predicated upon examining the prediction that specific variables will take place predominantly on predetermined factors based on a hypothesis. Many fit indices are used in order to determine conformity capacity of the model examined in CFA. In the conformity assessments of fit indices between theoretical model and actual data, the use of many fit index values is recommended in order to exhibit the model’s conformity due to the strengths and weaknesses relative to each other (Buyukozturk, Akgun; Ozkahveci and Demirel, 2004).

At the beginning of the research, confirmatory factor analysis is used to determine whether or not SCCP scale has three-factor structure as it is expected to be theoretical and is also supported with the results of descriptive factor analysis. As seen in Table 1, the fact that independent model coefficient obtained at the end of this analysis has a very high value \( (X^2_{276}=8560.95; P = 0.00) \) proves the suitability of variance-covariance matrix obtained from data set for testing and the sufficient relationship between the factor and items. Based on this, 25-item form of the scale is primarily examined with the confirmatory factor analysis. General ensemble coefficients with regard to the scale’s three-factor solution is provided in Table 1.

Table 1. SCCP scale Model Tests and Factor Load and Error Variances

<table>
<thead>
<tr>
<th>Model</th>
<th>( X^2_{sd} )</th>
<th>( X^2/df )</th>
<th>GFI</th>
<th>AGFI</th>
<th>CFI</th>
<th>NNFI</th>
<th>SRMR</th>
<th>RMSEA</th>
<th>AIC</th>
<th>ECVI</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Independent model</td>
<td>22803.19((270))</td>
<td>31.01</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>22853.19</td>
<td>47.91</td>
<td></td>
</tr>
<tr>
<td>2. Form 1 (25 items)</td>
<td>954.88((270))</td>
<td>3.25</td>
<td>0.86</td>
<td>0.83</td>
<td>0.97</td>
<td>0.97</td>
<td>0.05</td>
<td>0.07</td>
<td>1064.88</td>
<td>13150</td>
</tr>
</tbody>
</table>

One Sample Analyses

<table>
<thead>
<tr>
<th></th>
<th>( X^2_{sd} )</th>
<th>( X^2/df )</th>
<th>GFI</th>
<th>AGFI</th>
<th>CFI</th>
<th>NNFI</th>
<th>SRMR</th>
<th>RMSEA</th>
<th>AIC</th>
<th>ECVI</th>
</tr>
</thead>
<tbody>
<tr>
<td>4. Boys</td>
<td>670.21((270))</td>
<td>2.61</td>
<td>0.79</td>
<td>0.74</td>
<td>0.94</td>
<td>0.94</td>
<td>0.07</td>
<td>0.09</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>5. Girls</td>
<td>763.36((272))</td>
<td>1.52</td>
<td>0.82</td>
<td>0.78</td>
<td>0.96</td>
<td>0.96</td>
<td>0.05</td>
<td>0.08</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

As observed in Table 1, form-1 has sufficient general coefficients of concordance (GFI, CFI, AGFI >= .80; RMSEA <= .08) (Byrne and Campbell, 1999; Browne and Cudeck, 1993; Buyukozturk et al., 2004).

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As observed in Figure 1, standardized parameter estimations between latent variable (SCCP scale) and indicators (item) vary between 0.30-0.80 ranges. After examining modification indices (MI, LM and Wald), relationship level higher than what model predicts (>15) was not observed between disturbance terms of items, in other words, systematic relationships were not observed between disturbance terms.

On the other hand, the information on whether or not the items’ factor structure differs depending upon gender is given in the single sample group analyses section in Table 1. None of the $X^2$ fit indices in this section was found significant in 0.05 level. Moreover, $X^2$ rates are under 5 in three models. Based on single sample analysis results, SCCP scale explains the change in data set for schoolgirls better ($X^2/$sd= 1.52).

![Figure 1. CFA Results of SCCP scale](image)

Chi-Square=954.88, df=270, P-value=0.00000, RMSEA=0.073

In addition to this, general fit indices calculated for schoolgirls are sufficiently high (Ex. CFI kız > 0.96). These results elicit that the factor structure that best defines the SCCP scale is the same in girls and boys.
4. Discussion

In this study, the validity and reliability of SCCP scale developed by Lickona and Davidson (2003) are investigated on a group of Turkish secondary school students. Expert opinion was received for content validity of the scale. Confirmatory factor analysis was conducted to examine the construct validity of the supported scale.

The three-factor structure elicited in this research is not seen to vary from the original form of the scale. However, White (2007), Brock (2010), Shell (2010) and Van de Weijer-Bergsma, Langenberg, Brandsma, Oort and Bögels, (2014) used the scale developed by Lickona and Davidson (2003) in their research and approached the scale with its five subdimensions without conducting validity and reliability analysis. Furthermore, Kasler, White and Elias (2013) used the SCCP scale in their study but they reported only reliability analysis for the scale. In the studies Lee (2008) conducted, he stated that the scale was subjected to confirmatory factor analysis and a five-subdimension model was not validated, hence, he continued with the scale’s five-factor model. In addition to the three subdimensions for the students to answer (respect, student friendship and belonging and shaping of their environment), Siskos, Papaioannou and Proios (2011) included another dimension for the teachers and parents to answer (support and care by the teacher) and analyzed the scale with four subdimensions; as a result, they indicated that these dimensions are valid and reliable. Based on these statements, the scale developed by Lickona and Davidson (2003) was used in various studies with numbers of dimensions. One of the reasons for this may be that the researchers (White, 2007; Brock, 2010; Shell, 2010) may not have conducted validity and reliability analysis on the samples they used in the scale in the studies. Another reason may be the intercultural differences. These differences affect the person’s perceptions, thoughts, assessment styles and behaviors (Hofstede, 1985). As a result of this, by taking into consideration that the groups the scale was applied to have different cultures and therefore possess different senses of community, the scale’s variation under different dimensions in different studies is an expected result.

Another significant result of the research is that there is likeness in SCCP’s item-factor and error variances in both genders; however, boys scored higher than girls in the scale. This finding is incongruous with the results of the studies conducted by Rovai (2001b) and Graff (2003). The total scores of girls obtained from the sense of community scales are higher compared to boys in both studies. The differences of sense of community between genders were examined in the aforementioned studies and they emphasized the reason for this to be that the group of boys is more independent and self-governing compared to girls (Graff, 2003). Kim and Bonk (2002) elicited contrary findings to the studies of Rovai (2001b) and Graff (2003), in the intercultural study they conducted in Finland and America. The variance in results based on the scale used in different countries is the indicator of differing nature of the scale from one culture to another. It may be suggested that the higher scores of boys obtained from SCCP compared to girls may be attributed to the varying gender role behaviors imposed by the culture. It may be suggested that social gender roles are important. Women and men act according to the value judgments of social structure when performing their roles in the community (Akin and Demirel, 2003). Thus, social expectations occur towards the behaviors of women and men (Ecevit, 2003). These expectations are seen to vary from one culture to another. In Turkish society, men are expected to be strong and have control over the community whereas women are expected to be patient, understanding and coordinate the communication in the community (Imamoglu, 1991). For this reason, it may be suggested that it is the role of men in Turkish society to be independent and self-governing and to govern the community. The total higher scores of boys obtained from school as a caring community profile scale compared to girls may be considered a result of this.

5. Conclusion

Following CFA examination of the original scale of three-factor structure with 25 items at the end of the analyses, it is determined that the measuring model is an appropriate model. Accordingly, the statistical values based on the best result achieved from SCCP scale with 25 items and three-factor form ( χ²=954.88(270);χ² =2,87; GFI= 0,79; AGFI=0,74; CFI=0,97; NNFI=0,97; SRMR=0,05 RMSE= 0,07) indicate the scale’s construct validity. The scale exhibits three-factors which are perceptions of student respect, perceptions of student friendship and belonging and perceptions of student shaping of their environment. Based on the research results, the sense of community scale prepared is seen to have quite high validity and reliability (internal consistency) coefficients.

Some studies on schools as caring communities are necessary. Some of the studies that may be conducted are as follows: (1) Different scales are used when determining the number of participants during the factor analyses. Tabachnick and Fidell (2001) suggest that approximately 300 observations, no fewer than 100, are adequate for the analysis. Grimm and Yarnold (1995) suggest that *5~10 item person relation is adequate in determining the sufficient number of participants. As for the confirmatory factor analysis, the rate parameter number is * 10 persons (Kline,
1998). Although strong estimation methods were used in the research, the inadequate number of participants should be considered and research findings should be examined delicately. In this context, the research hypotheses tests should be repeated in similar participant groups. (2) SCCP scale cross validation studies must be conducted on student, teacher and parent groups. (3) Sociocultural factors on boys’ higher scores obtained from the scale compared to girls should be examined.

Notes:
The summary of this study was presented at the 5. World Conference on Educatioanal Science held in Rome, Italy between 4-6 February, 2013.

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