

Psychometric Properties of the *School Liking and Avoidance Questionnaire* in a Turkish Preschool Sample

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Abstract: In this study, the replicability of the factor structure of The School Liking and Avoidance Questionnaire for Turkish preschool children and the psychometric properties of the scale were investigated. The SLAQ consists of 14 items and is used to assess children's emotional and behavioral participation in school based on children's perceptions. 345 children aged 5-6 years were included in the study. The findings of exploratory and confirmatory factor analyses, to assess the validity of the scale in Turkish culture, have identified two distinct but related factors: school liking and school avoidance. This result is consistent with the original scale and the adaptation studies in different cultures. However, there were no significant correlations between children and teacher reports on school liking and school avoidance subdimensions. Cronbach's Alpha and test-retest ratios for subdimensions showed adequate psychometric properties. This data support the Turkish version of the SLAQ as a valid and reliable tool, similar to the original version.

1. INTRODUCTION

Preschool education institutions are considered to be one of the most important contexts in which children can acquire and develop social and early academic skills. Early experiences of children in school constitute the basis for their future social and academic achievements (Fredericks, Blumenfield, Friedel, & Paris, 2005; Ladd & Burgess, 2001; Ladd, Herald, & Kochel, 2006). However, when children start school, they have to cope with many problems (Murray, Murray, & Waas, 2008). Academic challenges, compliance with class and school rules, meeting teacher expectations and being accepted by their peers are some of these problems (Ladd, 1990; Ladd & Price, 1987; Olson & Rosenblum, 1998). In addition, children have to cope with interpersonal problems and cognitive tasks that are becoming increasingly complex throughout the school year. Many children cannot overcome these problems and have many problems related to school adjustment (Rimm-Kaufman, Pianta, & Cox, 2000). Research shows that children coping with these problems and adjustment to school environment are related to positive or negative results. Children develop many ideas, beliefs and attitudes about school in pre-school period. Researchers came to conclusions which show that these ideas,

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beliefs and attitudes that children develop about school continue throughout their school life (Fantuzzo, Bulotsky, McDermott, Mosca, & Lutz, 2003; Ladd, Buhs, & Seid, 2000; Ladd & Burgess, 2001; Ladd & Dinella, 2009; Pears, Kim, Capaldi, David, & Fisher, 2012; Pianta & Steinberg, 1992; Smith, 2011). For example, it was found that there is a close correlation between the degree of adjustment to the school perceived by the teachers (positive attitude towards school) and a subsequent (later) higher academic achievement, between positive feelings towards the school in the kindergarten, and high literacy scores in the 5th grade (Hauser-Cram, Durand, & Warfield, 2007), between liking school in pre-school period and reading and mathematics attainments in 8th grade (Ladd & Dinella, 2009). Many studies emphasize that there is a close correlation between school adjustment and school achievement (Birch & Ladd, 1997; Ladd, 1990; Ladd, Kochenderfer, & Coleman, 1996; Ladd & Price 1987; Ladd et al., 2000). Children will probably benefit more from these experiences when they like school and participate in class activities. As opposed to this, when the children have a negative attitude towards the school or avoid the school, this situation will constitute an obstacle for their progress (Ladd, 1990). Ladd and colleagues (2000) stated in their study that children who express that they like school often participate in class activities and show high success. All of these results suggest that adjustment to school in the pre-school period is a subject that should be carefully considered as a developmental problem.

Adjustment to school is a multi-faceted concept with subdimensions such as liking school, avoiding school, academic achievement and dropping-out of school (Goldberg, 2006). In general, school adjustment refers to children's commitment to school or school-related activities, their participation and interest, and their level of being comfortable and successful (Ladd, 1996; Ladd, Buhs, & Troop, 2002). There are many factors that affect children's adjustment to school. Many variables of the child such as child's temperament (Al-Hendawi 2010; Lengua, Wolchik, Sandier, & West, 2000; Morris et al., 2002; Yoleri, 2014), self-esteem (Kaya & Akgün 2016), cognitive readiness and intelligence (Pianta & McCoy, 1997; Reynolds, 1991), executive functions (Sasser, Bierma, & Heinrichs, 2015), self-regulation skills (Morrison, Ponitz, & McClelland, 2010; Williams, Nicholson, Walker, & Berthelsen, 2016) social skills and behavioral problems (Chen, Rubin, & Li, 1995; Ladd, 2006; Ladd & Burgess, 2001) academic skills (Ladd et al., 2000) have been extensively studied by researchers. In addition, factors such as, gender (O'Connor & McCartney, 2007; Yoleri, 2014), socioeconomic level (Ackerman, Brown, & Izard, 2004; Duncan & Brooks-Gunn, 2000), race/ethnicity (Downer, Goble, Myers, & Pianta, 2016), parenting style (Myers, 2007), the quality of the preschool education program (Pianta, La Paro, Payne, Cox, & Bradley, 2002), class climate (Carson & Templin, 2007; Hamre & Pianta, 2001; Jennings & Greenberg, 2009; Robinson, 2013) activities to support adjustment to school employed by teachers and parents (Copeman-Petig, 2015; LoCasale-Crouch, Mashburn, Downer, & Pianta, 2008; Schulting, Malone, & Dodge, 2005) and family participation (Anguiano, 2004; Copeman-Petig, 2015) have been considered by researchers.

Another important factor that affects children's adjustment to school is social relations at school. In this context, relations with teachers and peers have the potential to affect all school experiences of children. Specifically, children's relationships with their teachers provide a significant contribution to, their relationships with their peers, social competencies, school adjustment and to the development of their academic skills (Baker, Grant, & Morlock, 2008; Birch & Ladd, 1997; Doumen, Koomen, Buyse, Wouters, & Verschueren, 2012; Gallagher, 2015; Howes, Phillipsen, & Peisner-Feinberg, 2000; Pianta & Stulhman, 2004; O'Connor & McCartney, 2007). Similarly, while contributing to their learning of social and cognitive skills (Hartup & Stevens, 1997; Howes, 1996) the quality of children's relationships with their peers is closely related to their ability to adapt to the school (Ladd, 1990; Maguire & Dunn, 1997). Because quality friendship gives children more affirmation, support, sincerity and confidence.

For example, Howes, Rubin, Ross, and French (1988) stated that children who have friends have a higher adjustment to school transitions than those with no friends. Similarly, Ladd (1990) emphasized that children who started preschool education had better adjustment to school if they had classmates from their earlier years (from nursery), and if these friendships are continued throughout the year these children gain more positive impressions about the school.

Although the current literature provides a substantial foundation on adjustment to school and the factors affecting adjustment to the school, in many instances, teachers' perceptions have been considered as indicators of adjustment to school (Birch & Ladd, 1997; Buhs, Ladd, & Herald, 2006; Claes, 2010; Engle, McElwain & Lasky, 2011; Goldberg, 2006; Myers, 2007; Sette, Hipson, Zava, Baumgartner, & Coplan, 2018). Teachers' perspectives provide important information when it comes to children's adjustment to school, but they cannot replace information obtained from children (Smith, 2011). At the same time, children are valid and very valuable sources of information about their internal processes and problems. Children are experts in their own lives, they are aware of their experiences as learners and have the ability to express their ideas (Daly et al., 2007; Einarsdottir, 2005; Kragh-Muller & Isbell, 2011). In addition, having information about children's feelings and thoughts and taking their point of view into consideration are important for preventing emergence of problems related to school adjustment and all subsequent risk factors. Given this situation, the researchers worked on determining the preschool children's thoughts about the school based on their perceptions. The most important of these efforts was The School Liking and Avoidance Questionnaire ([SLAQ], Ladd et al., 2000), which was adapted from the studies by Ladd and Price (1987) and Ladd (1990) to determine the attitudes of children towards school based on children's perceptions.

The SLAQ, designed to assess children's feelings about school, consists of 14 items. The items require children to express their positive feelings towards school (9 items, school liking), and feelings such as the desire to go home from school (5 items, school avoidance). There are many studies examining psychometric properties of SLAQ in different cultures and different age groups. In a study conducted by Zhang (2016) with Chinese children ($M_{age} = 14.25$), exploratory factor analysis did not support the factor structure of the original scale. The school liking subscale included 4 items (Cronbach's $\alpha = .76$ urban group, $.61$ rural group) and the school avoidance subscale included 4 items (Cronbach's $\alpha = .82$ urban group, $.77$ rural group). SLAQ's Italian validity and reliability study was carried out with children with the average age of 7 years, 7 months. In the Italian SLAQ, school liking subscale included 8 items (Cronbach's $\alpha = .89$) and the school avoidance subscale included 5 items (Cronbach's $\alpha = .82$) (Tomada, Schneider, de Domini, Greenman, & Fonzi, 2005). In another study with Greek first-grade students ($M_{age} = 77.22$ months), Cronbach's alphas for school liking were $.84$, $.86$, and $.89$, for school avoidance were $.75$, $.76$ and $.79$ at pre-, post-, and follow-up assessments respectively (Vassilopoulos, Brouzos, & Koutsianou, 2018). SLAQ was also adapted for Japanese children by Otsui and colleagues but the results could not be reached because the article written in Japanese (cited in Honma & Uchiyama, 2014). In the validity and reliability study conducted by Smith (2011) with American children aged 5-12 years, the school liking subscale contained 7 items (Cronbach's $\alpha = .89$ - $.91$) and the school avoidance subscale contained 5 items (Cronbach's $\alpha = .79$ - $.84$).

In Turkey, although some studies were conducted on preschool children's adjustment to school their number is quite limited. In these studies, factors which are thought to be effective in children's adjustment to school such as, gender and problem behaviors (Yoleri, 2015), peer relations and peer acceptance (Gülay & Erten, 2011; Yoleri, 2015), social skills (Gülay, 2011), mother attitudes (Gülay-Ogelman, Önder, Seçer, & Erten, 2013), relationships with mother and teacher (Nur, Aktaş-Arnas, Abbak, & Kale, 2018) were investigated. However, these studies were based only on teacher perceptions. It is usual to ask teachers about children's feelings towards school because teachers spend long hours with children and they collect a lot of

information about children during the day. However, in the literature, there are some concerns about collecting data on children from adults only. One concern is that teachers have the potential to act biased as raters (Kesner, 2000; Saft & Pianta, 2001). In addition, discrepancies found in some studies based on child, parent and teacher reports, between the perceptions of children and adults have increased these concerns. For example, some studies have emphasized that teachers' and children's perceptions on adjustment to school and teacher-child relationship have little or no coherence (Harrison, 2004; Murray et al., 2008; Smith, 2011). In another study, it was found that peer reports gave more accurate results than parents and teacher reports (Clements, Musci, Leoutsako, & Ialongo, 2015). For this reason, it is an important matter to collect child reports in studies related to children.

Children develop and learn in environments where they receive attention and are valued and happy. In environments where their thoughts and feelings are listened and accepted, children feel safe and find opportunities to learn and explore. Knowing the feelings of children about school from their point of view will make it possible to respond to their needs both individually and as a group. This study was planned to determine whether the factor structure of SLAQ is replicable for 5-6 years old Turkish children and to evaluate the psychometric properties of the scale. If it is confirmed that the scale is valid and reliable in Turkish culture, the need for a valid tool that researchers can employ aiming to evaluate the emotions of children about the school will be satisfied. Thus, it is thought that adaptation of SLAQ to Turkish will make a significant contribution to the field.

2. METHOD

2.1. Participants

The study groups were formed by convenience sampling method from 5-6 years old children attending pre-school education institutions in central Osmaniye in southern Turkey. Firstly, schools were visited and the purpose of the research was explained to the administrators and teachers. Afterwards, the parents of the children from the classrooms of the 26 teachers who agreed to participate in the research were sent an informed consent form. Children whose parents gave their informed consent were included in the study.

Since this research was an adaptation study, two different study groups were formed. A total of 345 children ($M_{age} = 67.10$ months, $SD = 4.10$, range 54 to 77), 161 females and 184 males, participated in the study. To examine the factor structure of the scale, exploratory factor analysis was performed with data collected from 129 children (63 female, 66 male, $M_{age} = 66.59$ months, $SD = 3.30$, range 60 to 73). In addition, confirmatory factor analysis was performed with data collected from 216 children (98 female, 118 male, $M_{age} = 67.41$ months, $SD = 4.50$, range 54 to 77).

2.2. Instruments

2.1.1. School liking and avoidance questionnaire

School Liking and Avoidance Questionnaire (SLAQ) was adapted from studies by Ladd and Price (1987) and Ladd (1990) to determine children's attitudes towards school. Constituting of a total of 14 items, the SLAQ has a self report measure and a two-factor structure. The school liking subdimension (Items:1, 2, 4, 6, 7, 8, 10, 11, 12) assesses children's positive perceptions and feelings about the school (Three reverse score items, Is school a fun place to be? Do you like being in school?) and school avoidance subdimension (Items:3, 5, 9, 13, 14) assesses children's school avoidance desire (Do you wish you didn't have to go to school? Do you wish you could stay home from school?). During individual interviews with children, children are asked to evaluate the items with a three-point scoring ("yes," "sometimes," or "no," which were scored as 3, 2, and 1 respectively). For each subdimension, the total score is calculated taking the mean scores for each item. High scores for school liking subdimension indicate positive

feelings about the school, while high scores for the school avoidance subscale indicate a higher desire for school avoidance. Ladd and colleagues (1996) calculated the internal consistency coefficients for subdimensions for the fall and spring periods separately in their study and reported that the coefficients were strong (School liking Cronbach's α fall = .87, spring = .91, school avoidance Cronbach's α fall = .76, spring = .81).

2.1.2. Teacher rating scale of school adjustment

Teacher Rating Scale of School Adjustment (TRSSA) has been developed by Ladd, Kochenfender and Coleman (1996) to evaluate children's school adjustment skills based on teachers' perceptions. The scale consists of 4 subdimensions (school liking, cooperative participation, school avoidance and self-directedness). The 5-item school liking subscale determines the teacher's perception of how much the child likes school (Cronbach's α = .89). The cooperative participation subscale, which consists of 8 items, measures the extent to which the child accepts the teacher's authority, classroom rules and responsibilities (Cronbach's α = .92). The school avoidance subscale consists of 5 items and based on teacher perceptions aims to determine the degree to which the child avoids the classroom environment (Cronbach's α = .74). The 9-item self-directedness subscale evaluates the child's independent or self-directed behavior within the classroom (Cronbach's α = .91). Each item in the scale is evaluated using a 3-point likert scale (from 0 = doesn't apply to 3 = certainly applies) (Birch & Ladd, 1997). The internal consistency coefficient of the scale, which was adapted to Turkish by Önder and Gülay (2010), was found to be .70 for the whole scale. The internal consistency coefficients of the subscales ranged between .67 and .84 (Önder & Gülay, 2010).

Within the scope of the current study, in order to test the internal consistency of TRSSA, Cronbach's alpha values of the subscales were examined. As a result of the analysis, the alpha value was determined as .87 for school liking subscale, .86 for cooperative participation, .87 for school avoidance subscale, and .76 for self-directedness subscale.

2.1.3. Preschool and kindergarden behavior scales

Preschool and Kindergarden Behavior Scales (PKBS-2) was developed by Kenneth W. Merrell in 1994 to evaluate social skills and problem behaviors of 3-6 year old children. In 2003, the scale was revised and a norm study was conducted with 3,317 children aged between 3 and 6 years (Merrell, 2003). The scale consists of two independent scales: Social Skills and Problem Behavior scales. Scale is a 4-point Likert type scale. The validity and reliability study of the scale for Turkish children was done by Özbey (2009). Social Skills Scale consists of three subdimensions; Social Cooperation (11 items), Social independence and Social acceptance (8 items) and Social Interaction (4 items) with a total of 23 items. The Cronbach's Alpha values of the Social Skills Scale subscales were .92, .88, .88, and the overall Cronbach's Alpha Scale of the Social Skills Scale was .94, respectively (Özbey, 2009). The high total score indicates that children have high social skills. The Problem Behavior Scale consists of four factors: Externalizing Problems (16 items), Internalizing Problems (5 items), antisocial (3 items) and egocentric (3 items). The Cronbach's Alpha values of the Problem Behavior Scale subdimensions were .95, .87, .81, .72, and the overall Cronbach's Alpha value of the Problem Behavior Scale was .96 (Özbey, 2009).

In order to test the internal consistency of the scales in the present study, Cronbach's Alpha values were examined. The Cronbach's Alpha values of the Social Skills Scale subscales were .92, .86, .96, and the Cronbach's Alpha value of the Social Skills Scale was .92, respectively. The Cronbach's Alpha values of the Problem Behavior Scale subdimensions were .96, .81, .65, .74, and the overall Cronbach's Alpha value of the Problem Behavior Scale was .93.

2.3. Procedure

The adaptation of the School Liking and Avoidance Scale was done through translation-re-translation study. For this purpose, the 14-item scale was translated into Turkish by researchers and two English experts. The suitability of the translation by the researchers was tested by comparing with the other two translation studies. Translated scale was sent to three academics who are experts in preschool education and who have mastery of English, for correction and assessment of how closely the items represent the original content. Corrections have been made by taking into consideration the suggestions made for using the synonyms of some words. The corrected translation of the scale was sent to four academicians specialized in pre-school education in order for assessment of the comprehensibility and fitness for purpose. The Turkish version of the scale, which was revised in line with the suggestions, was translated back to English. Afterwards, translations were reviewed for semantic shifts. Thus, it was concluded that the Turkish version of the scale was ready for implementation for the validity and reliability studies. Following these procedures, a pilot run was conducted with 19 children to evaluate the scale's comprehensibility.

Given the developmental characteristics of pre-school age children and the fact that they don't read or write, researchers have suggested that different scale designs are required to minimize situations that may interfere with young children's responses (Harter & Pike, 1984; Lewis & Lindsay, 2000; Zhang, Smith, Lam, Brimer, & Rodriguez, 2002). One of these is the addition of pictorial representation to scale items in order to facilitate the response of children (Hanna, Riden, Czerwinski, & Alexander, 1999; Mantzicopoulos, French, & Maller, 2004). Harter and Pike (1984) suggest that the visual image matching in the scales encourages a meaningful understanding of the content and facilitates the production of meaningful responses as it ensures children's attention and participation. One of the most commonly used pictorial representations when working with young children is the "smileyface" with facial expressions ranging from unhappy to happy (Reynolds-Keefer, Johnson, Dickenson, & McFadden, 2009; Hall, Hume, & Tazzyman, 2016). In this study, for the Turkish sample, "sad" facial expression for "no" answer, "neutral" facial expression for "sometimes" answer, and "happy" facial expression for "yes" answer were added next to the items in the scale (see Table 1). Children were encouraged to paint or mark these facial expressions according to their answers.

The data of the study were collected by one of the researchers through individual interviews with children. She had spent at least three hours in the children's classrooms in order to be acquainted and build rapport with the children before interviews started. During this period, the researcher introduced herself, participated in the activities of children and played with them. Later, the children whose parents gave their consent were individually invited to the interview. The researcher and the child met in a private room at children's school, and the researcher told the child about the research and asked for her/his consent to participate also. Children were informed that their answers will remain confidential and they can stop responding at any time. All children have agreed to participate.

The final Turkish version of the scale was applied to 345 preschool children in order to evaluate the validity and reliability of the scale in Turkish sample. Exploratory and confirmatory factor analyses were performed on the data transferred to the computer. In the confirmatory factor analysis, χ^2/sd , Root Mean Square Error of Approximation (RMSEA), Non-Normed Fit Index (NNFI), Goodness of Fit Index (GFI), Comparative Fit Index (CFI) and Incremental Fit Index (IFI) indices were used to assess the validity of the model fit. In order to determine Concurrent Validity, Pearson correlation coefficients between TRSSA and PKBS-2 completed by teachers for 107 children and SLAQ were calculated. The reliability of the scale was examined with Cronbach's Alpha internal consistency coefficient. In addition, in order to evaluate how

consistently the instrument measures, second interviews were performed with 97 children in three weeks intervals and the correlation between the data obtained was examined.

3. RESULT / FINDINGS

3.1. Construct Validity

3.1.1. Exploratory factor analysis

To examine the factor structure of the School Liking and Avoidance Questionnaire, data gathered from 129 children were included in the Exploratory Factor Analysis (EFA). In determining the items to be included in the scale in exploratory factor analysis, it was stipulated that the eigenvalues of the items should be at least 1.00, the factor load values of the items should be higher than .40, the items should be contained in a single factor, and there should be a minimum difference of 0.10 between the factor loads of the items loaded in two different factors. The suitability of the data collected from School Liking and Avoidance Scale for factor analysis was evaluated by the Kaiser-Meyer-Olkin (KMO) coefficient and Bartlett's test. Kaiser-Meyer-Olkin's sample adequacy measure (KMO = 0.85) and Bartlett's test of sphericity ($\chi^2=1505.535$; $p<.0001$) results showed that the data were suitable for factor analysis.

Table 1. Results of the Principal Component Analysis of the School Liking and Avoidance Questionnaire

| Item | 1 st Factor | 2 nd Factor | Corrected Item-Factor Correlation |
|-----------------|------------------------|------------------------|-----------------------------------|
| Item 11 | .867 | | .78 |
| Item 7 | .848 | | .82 |
| Item 8 | .836 | | .77 |
| Item 10 | .766 | | .71 |
| Item 6 | .741 | | .73 |
| Item 12 | .712 | | .67 |
| Item 4 | .684 | | .64 |
| Item 1 | .677 | | .80 |
| Item 2 | .511 | | .39 |
| Item 14 | | .884 | .77 |
| Item 3 | | .817 | .78 |
| Item 5 | | .774 | .77 |
| Item 9 | | .639 | .60 |
| Exp. Variance % | 40.877 | 27.312 | |

Factor analysis was performed twice on the data obtained from SLAQ. As a result of principal components factor analysis using the Varimax rotation method for the 1st factor analysis, 2 factors with eigenvalues greater than 1 were obtained similar to the original scale. These 2 factors explain 63.62% of the total variance. For Item 13 of the scale (Do you feel more happy when you go home from school?) item load value is determined as 0.19. Since the item load value was below 0.40, this item was removed from the scale and the remaining 13 items were re-analyzed. The results obtained from exploratory factor analysis are given in Table 1.

With the new factor analysis, a two-factor and 13-item structure explaining 68.190% of the total variance was obtained. The first factor is school liking subdimension consisting of items 1, 2, 4, 6, 7, 8, 10, 11 and 12 (the items 2, 6 and 12 are calculated in reverse). The second factor is school avoidance subdimension consisting of items 3, 5, 9 and 14. It was determined that the

item load values of the scale were between .51 and .88. When the lower limit for the factor load value is taken as .32 as stated in the scale development and adaptation studies, it can be said that the factor load values of the scale are sufficient (Büyüköztürk, 2002; Kline, 2005). In order to examine the validity of the items, the total correlation values of the items were found to be between .39 and .82. Item total correlation values of .30 and above is considered to be sufficient to distinguish the property to be measured. According to the data obtained, each item included in the scale was highly correlated with the total score of the scale and met item validity.

3.1.2. Confirmatory factor analysis

Confirmatory factor analysis (CFA) was performed twice to examine the model fit of the 14-item two-factor structure of SLAQ. The analyzes were carried out on the data obtained from the second sample ($N = 216$). When the confirmatory factor analysis was performed, at first the criteria for the model fit were examined. In the first CFA analysis the following values were found, $\chi^2/df = 2.548$ ($p < .001$), root mean square error approximation (RMSEA) .08, non-normed fit index (NNFI) .92, goodness of fit index (GFI) .90, comparative fit index (CFI) .93 and incremental fit index (IFI) .93. However, it was found that the 13th item was not significantly predicted by the second factor. The analysis was repeated after eliminating this item. In the CFA, conducted in order to examine the model fit of the 13-item two-factor structure of SLAQ, the chi-square test was significant ($\chi^2 = 143.397$, $df = 62$, $\chi^2/df = 2.313$ $p < .001$) and indicated that the model was a good fit. In addition, as shown in Table 2, the fit indexes determined by using maximum likelihood estimation indicate that the model is a good fit. RMSEA = .07, NNFI = .93, GFI = .91, CFI = .94 and IFI = .94. These results obtained by eliminating one item from the scale (Item 13) indicate that the factor structure of the model has been verified and that the original structure of SLAQ is suited for use for Turkish culture.

Table 2. Summary of Fit Indices from Confirmatory Factor Analysis

| χ^2 | df | χ^2/df | RMSEA | NNFI | GFI | CFI | IFI |
|----------|----|-------------|-------|------|------|------|------|
| 143.397 | 62 | 2.313 | 0.7 | 0.93 | 0.91 | 0.94 | 0.94 |

In order to evaluate the construct validity of School Liking and Avoidance Scale, correlations between factors were also taken into consideration. Correlation ($r = -.625$, $p < .01$) between school liking subdimension ($X = 25.5$, $ss = 2.9$) and school avoidance subdimension ($X = 4.77$, $ss = 1.6$) showed a significant negative correlation between the subdimensions of the scale and there is no multiple correlation problem.

3.1.3. Concurrent validity

In order to evaluate the Concurrent Validity, the correlations between School Liking and Avoidance Scale, Teacher Rating Scale of School Adjustment, Preschool and Kindergarten Behavior Scales (Social Skills and Problem Behavior Scales) were examined. There are no significant correlations between the perceptions of children and the perceptions of teachers about school liking and school avoidance. Similarly, the correlations between the school liking and avoidance based on children's perceptions and each subdimension of Social Skills Scale based on teacher perceptions are not significant. However, significant negative correlations were identified between the school liking subdimension based on children's perceptions and antisocial ($r = -.322$, $p < .001$) and egocentric ($r = -.268$, $p < .001$) subdimensions of the Problem Behavior Scale based on teachers' perceptions.

3.2. Reliability Analysis

SLAQ reliability was measured by Cronbach's Alpha coefficient and test-retest methods. The Cronbach's Alpha Coefficient for the SLAQ school liking subdimension is .92 and .87 for the school avoidance subdimension. For test-retest reliability the correlation between

measurements made in three-week intervals was examined. High levels of significant correlations between two applications were identified for school liking ($r = .86$; $p < 0.01$) and avoidance ($r = .84$; $p < 0.01$) subdimensions. This result shows that the evaluation tool gives stable results over time.

4. DISCUSSION

In this study, the replicability of the factor structure of The School Liking and Avoidance Questionnaire for Turkish preschool children and the psychometric properties of the scale were examined. SLAQ is used to assess children's emotional and behavioral involvement in school. The EFA and CFA findings, which were conducted to evaluate the construct validity of the scale in Turkish culture, identified two distinct but related factors: school liking and school avoidance. This result is consistent with the original scale and the adaptation studies in different cultures (Honma & Uchiyama, 2014; Ladd et al., 2000; Smith, 2011; Tomada et al., 2005; Vassilopoulos et al., 2018).

The relationship between child and teacher reports was examined to evaluate the construct validity of the School Liking and Avoidance Questionnaire subscales. There were no significant correlations between the perceptions of children and the perceptions of teachers on school liking and school avoidance. Similar results were obtained in previous studies (Murray et al., 2008; Smith, 2011). Murray and colleagues (2008) reported in their study on teacher-child relationship and children's school adjustment that there was a low correlation between the children's and the teachers' perceptions and additionally the children's perceptions of teacher-child relationship were more predictive of school liking. In another study by Harrison (2004), the correlation between children's reports of school liking and avoidance and teachers' reports of task orientation and assertive social skills differ with regard to girls and boys. There was no significant correlation between the scores of girls' school liking and avoidance scores and teacher scores. In fact, a high correlation is expected between teacher reports and child reports. Because teachers are together with children all day and have the opportunity to observe them closely. Although child and teacher reports of school liking and avoidance subdimensions are evaluating the same structure, some limitations may have led to the development of this situation. For example, in crowded classrooms, teachers may have overlooked the behavior of other children as they paid attention to children who were over-exhibiting school avoidance behavior (Smith, 2011). The expectations of teachers and children from the school may be different. Teachers may perceive children who participate in activities without any problems and have academic success as liking the school and they may not be observing adequately. In fact, according to the social discipline model of Dreikurs, at the root of children's behaviour lies the desire to belong to a group, a class. According to Dreikurs, what motivates the children to misbehave can be the subconscious desire to draw attention, seek power or take revenge (Sadık, 2018). In this sense, children who want to attract the attention of teachers or peers by displaying such negative behaviors may not be desiring to get away from classroom or avoid school, instead they may be desiring to belong and be acknowledged. This desire can be the basic impulse underlying their negative behavior. However, teachers may think that these children avoid school.

Many studies based on teachers' perceptions emphasize the relationship between social skills and behavioral problems of children and school adjustment (Chen et al., 1995; Ladd, 2006; Ladd & Burgess, 2001). However, different findings have been reached in studies focusing on the correlations between children's perspective on school and the teachers' perspective on social skills and problem behaviour. In his study, Huang (2010) stated that there are correlations between school liking and avoidance based on children's perceptions and positive social behaviors and problem behaviors based on teachers' perceptions. In this study, no significant correlation between the school liking and avoidance scores based on the children's perceptions

and the social skills scores based on teachers' perceptions was identified. However, the correlations between the liking school subdimension based on children's perceptions and antisocial and egocentric behavior problems based on teachers' perceptions are significant. There are studies that support this finding in the literature. For example, Lee (2014), in his study, stated that there were correlations between externalizing problems based on teachers' perceptions and liking school, however there were no correlations between internalizing problems and children's reports. Similarly, Harrison (2004) concluded that there are correlations between boys' school liking and avoidance children's reports and acting out behaviors teachers' reports, but there is no correlation with being shy/anxious for both boys and girls.

Looking at the results of the internal consistency coefficients examined in order to evaluate the reliability of the scale, and considering the accepted reliability level of the measurement tools that can be used in the research is .70, the scale can be declared reliable. This result supports the results of the study by Smith (2011) (School liking Cronbach's $\alpha = .91$, school avoidance Cronbach's $\alpha = .80$). The results of the test and re-test to evaluate the reliability show that the scale gives stable results over time. In summary, the validity and reliability results for SLAQ show that the scale is valid and reliable in Turkish culture.

5. CONCLUSION

The findings of this study show that the Turkish version of The School Liking and Avoidance Questionnaire gives valid and reliable scores for Turkish preschool children. It is thought that the tool will contribute to the researchers who want to assess school adjustment problems, to identify children who do not like school or avoid school, to take measures for children at risk, and to investigate the correlation between the degree of emotional and behavioral participation in school and other adjustment indicators. There is a need for measurement tools to evaluate the school adjustment of Turkish preschool children based on children's perceptions and this scale adaptation is expected to fill this gap in the field. In addition, the study of the validity and reliability of the tool in different cultures will provide the basis for intercultural studies. In this context, the study may also contribute to the international literature.

Future research should examine the validity and reliability of SLAQ with participants at varying age groups and socioeconomic levels. Research conducted in different regions of Turkey, in varying types of schools and with larger samples may provide further evidence for the validity and reliability of SLAQ. In this study, because there is no other measurement tool based on the perceptions of children to evaluate the school adjustment of children, concurrent validity was evaluated based on the perceptions of teachers. It may be beneficial to employ more social based criteria, such as peer relations and teacher-child relations based on children's perceptions, presumed to affect school adjustment.

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