Research Article

# Validity and Reliability of The Chedoke-McMaster Attitudes Towards Children with Handicaps Scale in Turkey: A Methodological Study

**Ecem Çiçek Gümüş**[1] ⓘ **, Selma Öncel**[2] ⓘ

[1]Department of Public Health Nursing, Gaziantep University Faculty of Health Science, Gaziantep, Turkey
[2]Department of Public Health Nursing, Akdeniz University Faculty of Nursing, Antalya, Turkey

**ORCID IDs of the authors:** E.Ç.G. 0000-0001-6577-251X; S.Ö. 0000-0002-1882-1793.

**ABSTRACT**

**Aim:** The aim of this study was to examine the validity and reliability of the 'Chedoke-McMaster Attitudes Towards Children with Handicaps' scale in Turkey.

**Method:** A methodological study design was chosen. The data was collected in a primary and secondary school under Antalya Muratpaşa District's National Education Directorate. Schools with inclusive classes open to children with special educational needs were chosen using a random sampling method. Four hundred students in primary and secondary education between the ages of 9 and 13 were included in the study. Research data was collected from the chosen schools during the 2016-2017 spring semester. The Child's Descriptive Information Form and Chedoke-McMaster Attitudes Towards Children with Handicaps scale were used to collect data. Language and content validity, construct validity, internal consistency, and reliability analyzes were performed.

**Results:** It was determined that children who have a family member with disabilities had higher scores. The confirmatory factor analysis revealed that the Kaiser-Meyer-Olkin values were 0.90 and the chi-square value for the Barlett sphericity test was highly significant. The scale was reorganized into a four-factor structure featuring the following subscales: Interaction and Acceptance, Avoidance, Pity, and Sense of Affinity. The results of the analyzes confirm the new structure. The Cronbach's alpha value was 0.85.

**Conclusion:** The Chedoke-McMaster Attitudes Towards Children with Handicaps scale was found to be compatible with Turkish culture. The scale's new factors also reflect general attitudes existing within Turkish culture towards people with disabilities that require change.

**Keywords:** Attitudes measurement, children with disabilities, education, peer attitudes, reliability, validity

## INTRODUCTION

A disability is a physical, mental, intellectual, or social impairment caused by an illness or accident that may be present from birth or occur later in a person's lifetime (Kavaklı & Özkara, 2012). Disability is a concept that has individual and social consequences and also spiritual, physical, and medical dimensions (Camkurt, 2013).

Individuals with disabilities experience problems in many areas of their lives, such as primary education and health (WHO, 2011). In the latest report published by the Turkish Ministry of National Education (2016), there were near 300 thousand students registered as being in need of special education. According to data from the 'Experiences and Expectations of Disabled People Survey' conducted by the Republic of Turkey's Ministry of Family and Social Policies (ASPB) and the Turkish Statistical Institute

(TUIK), 25.6% of people registered as having a disability desire increased educational opportunities. According to data 41.6% of people with disabilities are illiterate (ASPB-TUİK, 2011).

As can be understood from this data, people with disabilities lack access to sufficient basic education in Turkey. This may cause them to be dependent on others both financially and socially throughout their lives (Orhan & Genç, 2015). The most significant reason for this is specified to be the attitudes formed and experienced in society in the face of disability (Çolak & Çetin, 2014). In order to identify attitudes towards people with disabilities, various studies and activities have been conducted and measurement tools have been improved (Bossaert, Colpin, Pijl, & Petry, 2011; Dunst, 2014; Yu, Ostrosky & Fowler, 2012). There has been some progress on the identi-

fication of attitudes among adults, however, studies identifying children and young people's attitudes are limited in number (You et al., 2012).

A peer group's thoughts and attitudes are of great importance in supporting the participation of a child with disabilities throughout his or her life. Therefore, it is greatly important to identify attitudes towards people with disabilities (You et al., 2012). Many studies have indicated that when children showing normal development spend time and are educated alongside children with disabilities it engenders more positive attitudes towards children with disabilities. These studies have shown that students in an inclusive class are more successful and socially participative than students in a special educational needs class (Alves & Santos, 2013; Bossaert et al., 2011; de Boer, Post, Pijl, & Minnaert, 2012; McDougall, DeWit, King, Miller, & Killip, 2004; Tonnsen & Hahn, 2015; Yu et al., 2012).

When we consider the fact that attitudes are malleable and acquired, identifying attitudes among children in primary education and developing positive attitudes is essential (Bossaert et al., 2011). No study or scale for measuring Turkish primary school children's attitudes towards peers with disabilities was found. It was therefore seen that the Chedoke-McMaster Attitudes Towards Children with Handicaps (CATCH) scale developed by Rosenbaum, Armstrong, and King (1986) should be adapted to Turkish culture and used in the literature.

### Research Question
1.  Is the CATCH scale suitable for determining the attitudes of Turkish children between the ages of 9-13 towards their disabled peers?

### METHOD

### Study Design
The study was designed as a methodological study with the purpose of assessing the validity and reliability of the CATCH scale in Turkey. It was conducted in a primary and secondary school under Antalya Muratpaşa District's National Education Directorate. Schools with inclusive classes open to children with special educational needs were chosen using a random sampling method. In the chosen schools, there were approximately 1900 students in total at primary and secondary levels. Research data was collected from these schools during the 2016-2017 spring semester.

### Sample
Students in primary and secondary education between the ages of 9 and 13 were included in the study. Each grade studied approximately eight different subjects and each class consisted of 30-32 students. The selection was made using a random sampling method for all subjects and each grade. Nearly 3-4 subject class groupings were selected for each grade. The selection was made by taking into consideration the fact that individuals could be selected 5-10 times more than the total item number obtained in the scale's validity-reliability study (Şencan, 2005). Based on this information, the sample size of the study was determined as 360 students. However, 400 students were included in the sample in order to account for data loss. Deficiencies were detected in 10 question forms after the collection of data, and the analyses were therefore conducted on 390 forms.

### Data Collection Tools
The 'Child's Descriptive Information Form' was created by the researcher and the CATCH scale was used.

**Child's Descriptive Information Form:** A question form consisting of six questions in total was created, asking the children to state their age, gender, school grade, whether they have any disabilities themselves, and whether they have any relatives or friends with disabilities.

**CATCH Scale:** The scale was developed by Rosenbaum et al. (1986) for the purpose of determining children's attitudes towards other children with disabilities by taking the insufficiencies of measurement tools used to determine their attitudes towards people with disabilities into account. The scale is a Likert-type scale consisting of 36 items and is based on self-reports provided by the children. Answers range from 0 (strongly disagree), 1 (disagree), 2 (unsure), 3 (agree), to 4 (strongly agree). The scale consists of three subscales measuring the affective, behavioral, and cognitive domains, each of which includes 12 items. Items with negative meanings are coded in reverse. Each sub-dimension of the scale is scored from 0-40. The Cronbach's alpha value of the scale for each dimension is 0.91 for affective attitudes, 0.74 for behavioral intention, and 0.65 for cognitive attitudes, while the Cronbach's alpha value for the full scale is 0.91 (Rosenbaum et al., 1986).

**Language validity:** In this study, psycholinguistic properties/language adaptation and psychometric properties were examined for the purpose of adapting the CATCH scale to Turkish. In order to assess the language validity of the Turkish adaption of the questionnaire, forward translation, expert panel, back-translation, pre-testing, final version, and documentation stages were followed according to the translation and adaption of instruments process suggested by the World Health Organization (WHO).

At both stages the scale was translated from English into Turkish by a professional translator whose mother tongue is Turkish and who has the required competency and knowledge of both languages, cultures, and the domain-specific terminology. The translation was sent to 10 experts and feedback was received. An expert panel was formed for the purpose of identifying and solving any incompatible expressions/concepts of the translation with the experts' feedback, and suggestions were received. The wording of the questions was finalized by the expert panel. It was then back-translated into English by an independent translator whose mother tongue is English and who had not seen the original CATCH form. In the comparisons made after the translation, it was determined that there were some differences, but that these did not affect the integrity of the meaning.

**Preliminary test:** At this stage, the scale was tested on 12 children between the ages of 9-13 who suited the criteria of the study and the comprehensibility of the questions was analyzed. The participants were asked whether there were any expressions, words, or content that they did not understand and their comments were taken into account when deciding which words would better express the intended meaning.

**Final questionnaire:** The final Turkish version of the CATCH scale is the result of all the aforementioned stages.

**Construct validity:** Explanatory factor analysis (EFA) and confirmatory factor analysis (CFA) were conducted for the purpose of testing the construct validity. EFA meaningfully and independently groups many variables related to one another into a smaller number of variables. Factor analysis is conducted for the purpose of decreasing the number of variables and revealing the relationship between the variables; in other words, classifying the variables high in num-

ber with those having a high correlation between each other (Kalaycı, 2014). The purpose of CFA is to determine whether the measurement tool developed for the measurement of the foreseen structure really measures the foreseen structure when its validity is tested.

**Internal consistency and reliability:** Cronbach's alpha coefficient and test-retest methods applied for the purpose of proving that the scale is reliable showed that there is a positive relationship between the scores obtained from the items and the scores obtained from the scale.

## Statistical Analysis
The normal distribution of the data and the existence of lost/error data were assessed before conducting the analyses. Number, percentage, average, univariate, multivariate, and ANOVA were used for the students' definitive properties, item subscales, and total point averages. EFA and CFA were conducted for the construct validity and Cronbach's alpha coefficients, and test-retest Spearman–Brown correlations were calculated for the internal consistency in validity and reliability testing. Statistical Package for the Social Sciences 23.0 and AMOS 24.0 package programs were used for the analyses of the CATCH scale validity and reliability studies. This is in accordance with the University of Akdeniz's agreement.

## Ethical Considerations
Permission to use the scale was received via e-mail from Rosenbaum who was the first to develop the scale and approval was awarded by Akdeniz University Faculty of Medicine Clinic Research Ethics Council (Approval Number: 70904504/54, Approval Date: 17/02/2017). A written institution permit was received from the Antalya Provincial National Education Directorate for the schools in which the study was conducted and informed consent forms were received from those who agreed to participate in the study voluntarily after the purpose of the study was explained to them. In addition, oral permission was given by the parents of the students, who agreed to participate via their teachers.

## RESULTS

### Factor Analysis
**Explanatory factor analysis:** Explanatory factor analysis was conducted for the purpose of proving the construct validity based on the points obtained

from the CATCH scale. Before EFA, a Kaiser–Meyer–Olkin (KMO) test was conducted for the purpose of testing the conformity of the sample size with factorization. As a result of the conducted analysis, it was found that the KMO value is 0.90 for the data set taken as the basis and that the chi-square value for the Barlett's sphericity test is significantly meaningful at p=0.000 (X$^2$(190)= 4576.951). There are no multiple connections and loss value problems between the items. As a consequence, we found that the data was appropriate for conducting factor analysis.

As a result of the first factor analysis, it was determined that there are seven factors whose eigenvalue is higher than 1. The contribution of these components to the total variance was determined to be 52%. These seven components were assessed within the framework of the importance of the contribution they made to the total variance after also examining the total variance table and scree plot graph (Figure 1). In Figure 1, the components in the Y axis descend towards the X axis. This descent shows their contribution to the explained variance. The interval between the points shows the factor number. As can be seen, the curve does not show a significant change after the fourth point. As of the fourth point it is lower than 1, its contribution to the explained variance is too close, and it slowly decreases. Within this framework, it was decided that the analysis should be repeated for four factors.

In the EFA conducted for the purpose of revealing the factor pattern of the CATCH scale, the acceptance level was determined as 0.32 for factor load values (Tonta, 2007). In the analysis conducted for four factors, when the items were assessed in terms of whether they meet the acceptance level of the overlapping and factor load values, it was determined that two items (item nos. 33 and 35) were not factored under any factor, one item (item no. 32) was factored in more than one dimension (overlapped), and the factor load was under the acceptance level (<0.0-0.1). Finally, it was also determined that two items (items nos. 7 and 24) were not ensured any integrity among other items and were not convenient in terms of factor naming. The four-factor structure and number of items resulting from the translation and adaptation process were examined and the scale's subscales were renamed. In the final assessment it was observed that of the original 36 items and three subscales (each consisting of 12 items), 31 items remained, divided into three subscales.

Conformity assessments were conducted for the item contents when naming the new factors obtained from the CATCH scale as a result of all the assessments, and expert opinions were obtained. Wording reflecting each new factor and the integrity of the items was used. Finally, as one of the developers of the CATCH scale, Rosenbaum's opinion was obtained via e-mail and the subscales were finalized. The factors were named as follows:
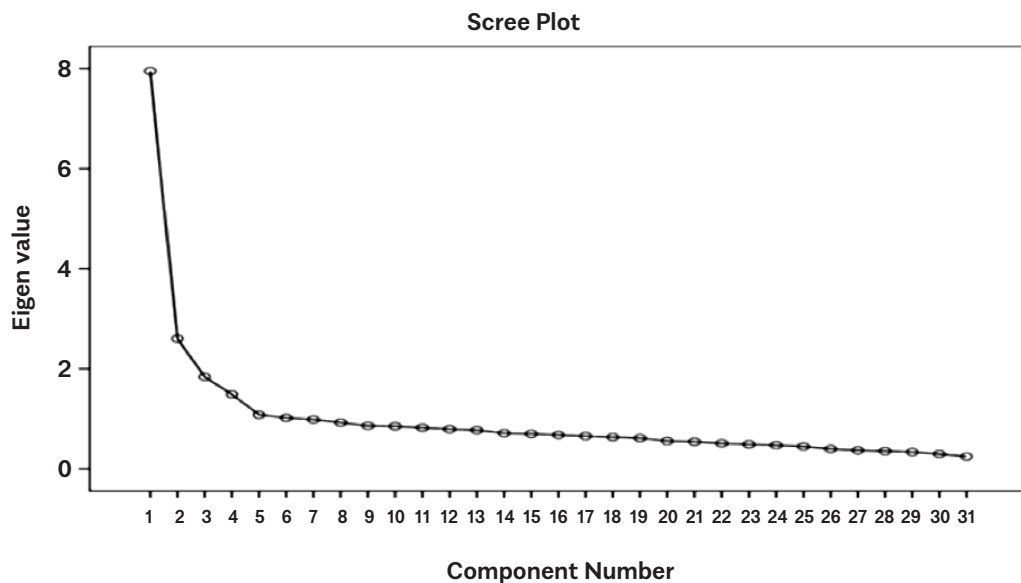


Figure 1. CATCH scale scree plot

Factor-1: Interaction and Acceptance (10 items),
Factor-2: Avoidance (10 items),
Factor-3: Pity (6 items),
Factor-4: Sense of affinity (5 items).

The contribution made by the factors to the total variance after the items were excluded from the analysis is seen in Table 1. It is seen that the total contribution made by the four factors to the variance is at the desired level (44.78%).

After the items repeated for four factors were excluded from the analysis, it was determined that the contribution of the factors to the total variance is 18.25% for the interaction and acceptance subscale, 11.16% for avoidance, 8.59% for pity, and 6.78% for sense of affinity. The total contribution of the four factors to the variance is 44.78% (Table 1).

The factor pattern and the factor load values of the items attained as a result of excluding these items (items nos. 7, 24, 32, 33, 35) from the analysis are given in Table 2.

**Confirmatory factor analysis:** Confirmatory factor analysis was conducted for the purpose of attaining additional proof of construct validity based on the points obtained from the CATCH scale. Firstly, the three factors in the original scale and the structure consisting of 36 items were examined using CFA. As a result of the first analysis, it was observed that the three-factor structure was not confirmed and that error variances were much higher than 1. CFA was repeated according to the four newly formed factors and 31-item scale. It was determined that the fit index of the four-factor structure is much better than that of the three-factor structure. The standardized coefficients between the variables observed with implicit variables (factors) provided as a result of the conducted analysis are given in Figure 2.

As can be seen in Figure 2; as a result of CFA, the standardized coefficients of the items with meaningful t-values in the explanation of the latent variable change as follows;

a) Factor 1: between 0.50 and 0.80,
b) Factor 2: between 0.36 and 0.71,
c) Factor 3: between 0.44 and 0.59,
d) Factor 4: between 0.42 and 0.62.

A number of fit indexes are used to assess the validity of the model in CFA. The most commonly used are the chi-square goodness-of-fit test, $\chi^2$, root mean square error of approximation (RMSEA), com-
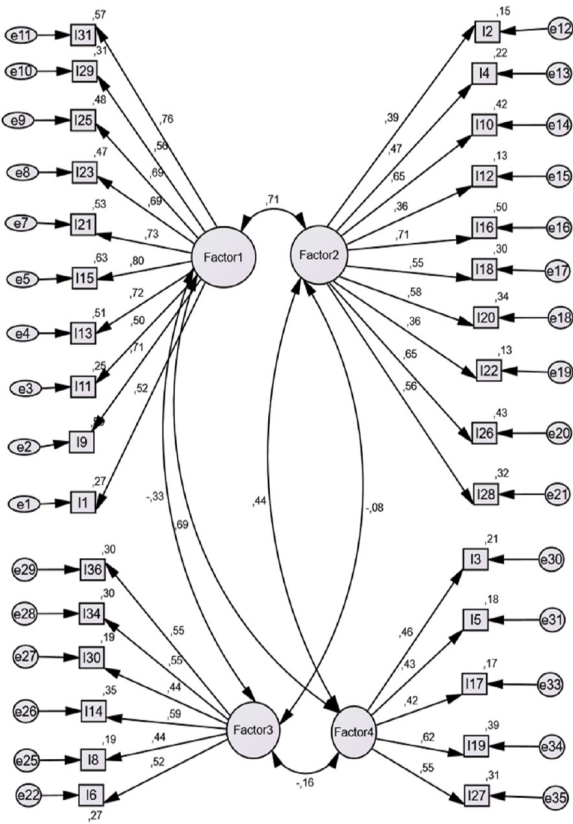


**Figure 2.** CATCH scale confirmatory factor analysis with standardized estimates; path diagram

**Table 1.** CATCH scale explanatory total variance table

| Factors Obtained from Analysis | Rotated Component Matrix | | |
| --- | --- | --- | --- |
| | Total | Variance (%) | Cumulative (%) |
| Interaction and Acceptance | 5.658 | 18.251 | 18.251 |
| Avoidance | 3.461 | 11.164 | 29.415 |
| Pity | 2.664 | 8.594 | 38.008 |
| Sense of Affinity | 2.102 | 6.781 | 44.789 |

**Table 2.** CATCH scale factor pattern

**Principal Component Analysis**

| Items | Components | | | | Common factor variance |
|---|---|---|---|---|---|
| | Factor-1[a] | Factor-2[b] | Factor-3[c] | Factor-4[d] | |
| 1 | 0.434 | | | | 0.327 |
| 9 | 0.646 | | | | 0.538 |
| 11 | 0.521 | | | | 0.345 |
| 13 | 0.700 | | | | 0.567 |
| 15 | 0.735 | | | | 0.631 |
| 21 | 0.719 | | | | 0.583 |
| 23 | 0.677 | | | | 0.520 |
| 25 | 0.764 | | | | 0.593 |
| 29 | 0.580 | | | | 0.403 |
| 31 | 0.738 | | | | 0.618 |
| 2 | | 0.595 | | | 0.371 |
| 4 | | 0.451 | | | 0.292 |
| 10 | | 0.601 | | | 0.477 |
| 12 | | 0.568 | | | 0.357 |
| 16 | | 0.542 | | | 0.509 |
| 18 | | 0.480 | | | 0.374 |
| 20 | | 0.473 | | | 0.412 |
| 22 | | 0.523 | | | 0.320 |
| 26 | | 0.572 | | | 0.482 |
| 28 | | 0.556 | | | 0.410 |
| 6 | | | 0.558 | | 0.359 |
| 8 | | | 0.498 | | 0.366 |
| 14 | | | 0.690 | | 0.494 |
| 30 | | | 0.592 | | 0.418 |
| 34 | | | 0.616 | | 0.401 |
| 36 | | | 0.625 | | 0.419 |
| 3 | | | | 0.636 | 0.464 |
| 5 | | | | 0.445 | 0.402 |
| 17 | | | | 0.549 | 0.475 |
| 19 | | | | 0.472 | 0.434 |
| 27 | | | | 0.629 | 0.458 |

[a]Interaction and acceptance, [b]Avoidance, [c]Pity, [d]Sense of affinity

parative fit index (CFI), non-normed fit index (NNFI), normed fit index (NFI), and goodness-of-fit index (GFI) (Çokluk, Şekercioğlu & Büyüköztürk, 2012). As a result of CFA, it was determined that the values observed in the scale model show a good and perfect fit. The results of the CFA and necessary normal fit indexes are given in Table 3.

### Descriptive features

The descriptive features of 390 students and their relationship with the new factor structure of the CATCH scale were examined and are shown in Table 4.

When table 4 was examined, it was determined that 53.6% of the participants were male, 28% were in the 4th grade, 22% were 13 years old, and the average age was 11. It is seen that the majority of them do not have a friend with disabilities (53.3%), family member with disabilities (81%), or people in their near vicinity with disabilities (88.7%). When evaluating each subscale, it was seen that the girls' averages are higher, that age is not meaningful in the dimensions in which positive questions are asked, but that there are higher point averages as age increases in the dimensions in which negative questions are asked and in the total scale scores. This situation changed similarly between grades. Having a friend with disabilities did not have any positive impact on the students' attitudes.

Having a person with disabilities in their family had the largest impact, with an average score of 89.2 for

**Table 3.** Fit indexes calculated as a result of confirmatory factor analysis and threshold normal fit indexes

| Fit Indexes | CFA fit values | Threshold* |
|---|---|---|
| CMIN ($x^2$)** | 826.740, p=0.000 | <0.900, p>0.05 |
| CMIN/DF ($x^2$/SD) | 1.932 | X2/d<3 |
| RMSEA | 0.049 | 0≤RMSEA≤0.05 |
| NFI | 0.80 | ≥0.90 |
| CFI | 0.90 | ≥0.90 |
| SRMR | 0.087 | <0.90 |
| GFI | 0.88 | ≥0.90 |
| AGFI | 0.86 | >0.80 |

*Kline, 2005; Çokluk et al., 2012. **CMIN (x2): chi-square goodness-of-fit test. RMSEA: root mean square error of approximation; NFI: normed fit index; CFI: comparative fit index; SRMR: standardized root mean square residual; GFI: goodness of fit index; AGFI: adjusted goodness of fit index

those with a disabled mother/father and 89.5 for those with a disabled aunt. Aside from these specified family members, there is no considerable difference between the point averages of those who do not have any family members with disabilities and those who do. When an assessment was made regarding people in the near vicinity with disabilities, it was determined that the point averages of those who have a neighbor with disabilities are clearly higher (90.0).

**Table 4.** Some descriptive features of students included in the study and their relation to the scale's new factor structure (n=390)

| Descriptive features | | % | N | Factor-1[a] X/SD | Factor-2[b] X/SD | Factor-3[c] X/SD | Factor-4[d] X/SD | Total X/SD |
|---|---|---|---|---|---|---|---|---|
| Gender | Female | 46.4 | 181 | 26.92±7.4 | 28.4±7.1 | 12.0±3.6 | 13.2±3.5 | 80.5±17.5 |
| | Male | 53.6 | 209 | 25.13±8.7 | 27.8±7.0 | 11.2±3.6 | 12.1±3.6 | 76.2±18.6 |
| Age | 9 | 19.5 | 76 | 26.6±8.5 | 28.2±7.5 | 10.7±3.8 | 11.7±3.9 | 77.1±18.6 |
| | 10 | 20.5 | 80 | 25.8±8.8 | 29.0±6.6 | 11.3±4.0 | 12.4±4.0 | 78.5±20.0 |
| | 11 | 19.7 | 77 | 25.7±8.4 | 28.2±6.3 | 11.0±3.7 | 12.2±3.6 | 77.2±17.6 |
| | 12 | 18.2 | 71 | 25.4±8.3 | 27.1±6.7 | 11.8±3.1 | 12.9±3.2 | 77.1±17.6 |
| | 13 | 22.1 | 86 | 26.2±7.3 | 27.8±8.0 | 12.8±3.0 | 13.9±3.0 | 80.7±17.0 |
| Mean age: 11.03 Grade | 3rd | 14.9 | 58 | 26.1±8.4 | 27.8±6.6 | 10.7±3.4 | 11.4±3.6 | 75.7±16.7 |
| | 4th | 28.5 | 111 | 26.5±8.9 | 29.3±7.0 | 11.3±4.0 | 12.5±4.0 | 79.7±20.1 |
| | 5th | 18.5 | 72 | 25.8±8.1 | 28.0±6.5 | 11.4±3.8 | 12.3±3.7 | 74.4±18.0 |
| | 6th | 19.5 | 76 | 24.8±8.4 | 26.5±6.8 | 11.5±3.3 | 12.7±3.3 | 75.5±18.9 |
| | 7th | 18.7 | 73 | 26.3±6.7 | 28.2±7.0 | 13.0±2.9 | 12.6±3.6 | 81.6±14.8 |
| A friend with disabilities | Have | 53.3 | 208 | 25.5±8.5 | 28.2±7.2 | 11.4±3.7 | 12.5±3.8 | 77.5±19.3 |
| | Do not have | 46.7 | 182 | 26.4±7.9 | 28.0±7.0 | 11.8±3.5 | 12.9±3.5 | 79.0±16.9 |
| A family member with disabilities | | | | | | | | |
| Have | Parent | 1.0 | 4 | 32.8±4.0 | 30.5±5.0 | 12.0±4.2 | 14.0±3.8 | 89.2±15.2 |
| | Sibling | 1.3 | 5 | 31.0±4.9 | 23.2±9.0 | 13.4±3.0 | 14.4±3.4 | 82.0±14.3 |
| | Aunt | 3.1 | 12 | 29.8±6.0 | 31.8±4.0 | 13.1±4.1 | 14.8±2.5 | 89.5±10.9 |
| | Uncle | 2.6 | 10 | 25.0±7.8 | 29.6±9.4 | 11.6±2.6 | 13.0±3.7 | 80.0±20.3 |
| | Grandparent | 2.1 | 8 | 28.1±12.5 | 30.4±12.7 | 10.8±3.9 | 12.6±4.1 | 81.9±20.8 |
| | Cousin | 5.4 | 21 | 28.2±6.3 | 28.2±6.3 | 12.3±3.9 | 13.5±4.3 | 80.6±20.8 |
| | Distant relative | 3.6 | 14 | 26.1±8.6 | 27.6±7.8 | 11.0±4.1 | 12.3±3.6 | 77.0±21.3 |
| Do not have | | 81 | 316 | 25.6±8.0 | 27.9±6.7 | 11.4±3.6 | 12.5±3.6 | 77.3±17.7 |
| Someone with disabilities in the near vicinity | | | | | | | | |
| Have | Neighbor | 22 | 5.6 | 29.9±8.1 | 31.9±5.8 | 13.5±3.4 | 14.7±2.7 | 90.0±16.6 |
| | Someone close to the family | 18 | 4.6 | 24.4±9.7 | 26.9±7.3 | 10.6±3.1 | 12.0±3.7 | 74.0±17.7 |
| | Teacher | 4 | 1.0 | 24.5±6.0 | 28.8±4.3 | 13.5±3.7 | 14.8±3.5 | 81.5±9.7 |
| Do not have | | 88.7 | 349 | 25.8±8.1 | 27.9±7.0 | 11.5±3.6 | 12.5±3.6 | 77.7±18.0 |

[a]Interaction and acceptance, [b]Avoidance, [c]Pity, [d]Sense of affinity

**Reliability Analysis**

**Internal Consistency Reliability: Cronbach's Alpha Reliability Coefficient**

A tool frequently used to determine internal consistency is the Cronbach's alpha coefficient (Kalaycı, 2014). The alpha coefficient does not completely guarantee reliability, but a higher alpha value means that reliability is high. The alpha coefficient should be as close to +1 as possible (Çokluk et al., 2012). Considering their function as internal consistency coefficients, Cronbach's alpha coefficients were calculated for the purpose of determining the reliability of the CATCH scale. The general Cronbach's alpha coefficient of the CATCH scale and its subscales calculated as a result of the analyses are shown in Table 5.

According to the statistics obtained, it was determined that the scale's general alpha coefficient is 0.85, as shown in Table 5. In the analyses conducted for the subscales, it can be seen that the Cronbach's alpha coefficients vary between 0.62 and 0.88. These values are reliable according to the literature and it is shown that the items forming the scale are

**Table 5.** Cronbach's alpha coefficient of the CATCH scale's subscales and total Cronbach's alpha coefficient

| Subscales | Cronbach's Alpha |
|---|---|
| Interaction and Acceptance | 0.88 |
| Avoidance | 0.80 |
| Pity | 0.68 |
| Sense of Affinity | 0.62 |
| Total | 0.85 |

qualified to accurately support the conducted study, are related to one another, are consistent, and are sufficient in number.

**Test-Retest Reliability**

A test-retest reliability study was conducted on 100 students within the same participant group after four weeks for the purpose of checking the reliability of the CATCH scale over time (one class was selected from each grade, ranging from 4th grade to 7th grade, using the random sampling method). As a result of the conducted Spearman–Brown correlation analysis, the scale's test-retest correlations were found to be lowest in the third dimension (r=0.377; p<0.001) and highest in the first dimension (r=0.801; p<0.001). The test-retest correlation of the general averages was found to be 0.82 (p<0.001). As can be seen in Table 6, positive correlation values at a medium and good level were attained as a result of the test-retest correlation, and all the correlation coefficients were found to be meaningful at a level of 0.01 and 0.05.

The reliability analysis also determined that the alpha value was 0.88 and test-retest reliability was 0.89 for the first implementation (n=100; p<0.001). As the ideal limit for test-retest reliability was determined as 0.80 in accordance with Kline (2005), the test reliability of the scale is deemed to be good.

**DISCUSSION**

Findings in the literature related to this study, which was conducted in order to be able to use the CATCH scale in Turkey to measure peer attitudes towards children with disabilities, are discussed below. The scale has been used in many different countries, such as Canada, the USA, France, Holland, Belgium, and Israel

**Table 6.** Test-re test Spearman–Brown correlation analysis

|  | retestF1 | retestF2 | retestF3 | retestF4 | Total retest |
|---|---|---|---|---|---|
| firsttestF1 | 0.801** | 0.494** |  |  |  |
| firsttestF2 | 0.647** | 0.560** |  |  |  |
| firsttestF3 | -0.062 | 0.101 | 0.377** |  |  |
| firsttestF4 | 0.457** | 0.293** | 0.184 | 0.662** |  |
| Totalfirsttest | 0.866** | 0.801** | 0.188 | 0.660** | 0.828** |
| 2-tailed | <0.001 | <0.001 | 0.061 | <0.001 | <0.001 |
| N | 100 | 100 | 100 | 100 | 100 |

F: factor. **Correlation of 0.01 is statistically significant (2-tailed)

and translated into the languages used in those states (Alderfer, Wiebe & Hartmann, 2001; Armstrong, Rosenbaum & King, 1987; Bossaert et al., 2011; de Boer, Timmerman, Pijl & Minnaertn, 2012; Godeau et al., 2010; Holtz & Tessman, 2007; King, Rosenbaum, Armstrong & Milner, 1989; McDougall et al., 2004; Rosenbaum et al., 1986; Tirosh, Schanin & Reiter, 1997; Vignes et al., 2009). The CATCH scale is said to be the most widely used scale of its type and a good tool for measuring the attitudes of children (Vignes, Coley, Grandjean, Godeau & Arnaud, 2008). Its original form has been adapted for ages 9-13 and it has also been used for young people up to the age of 20 (Bossaert, et al. 2011; McDougall et al., 2004; Olaleye, Ogundele, Deji, Ajayi, Olaleye & Adeyanju, 2012; Vignes et al., 2009).

**Factor Analysis**
**Construct validity:** Construct validity was ensured with EFA and CFA. As a result of the first EFA, it was found that the KMO value is 0.90 for the data set taken as the basis and that the chi-square value for the Barlett's sphericity test is significantly meaningful at p=0.000 ($X^2$(190)= 4576.951). In the studies conducted for ensuring construct validity, the scale was factored again and gained new dimensions. In contrast to the original scale, the number of items was decreased to 31 and the number of subscales was increased to four. Due to the change to the items under each subscale, the subscales were re-assessed and renamed to maintain the scale's integrity. The four-factor structure of the new scale was also confirmed with CFA. The values of fit indexes necessary for CFA were found to be at the desired level or higher (Table 3). The variance values of the new factors (Table 1) were similar to those resulting from the EFA conducted by Rosenbaum (1986) with Factor 1 being 24.4, Factor 2 being 8.9, and Factor 3 being 4.4. The total variance was found to be 37.6%. At the same time, Factor 1 and Factor 3 were factored within the same structure. When adapted to Belgian by Bossaert and Petry (2013), the structure was assessed with a single factor (seven items). CFA values were found to be $x^2$(43, n=1198)=554.657, p<0.001, RMSEA=0.100, CFI=0.959, and SRMR=0.104. In a study conducted in Holland by de Laat et al. (2013), a CATCH two-factor structure was formed. In Iran, the factor structure was not changed (Tirosh, 1997). It is seen that the fit index values of the conducted studies are close to one another, but that there are cultural differences in the issue of factoring. Rosenbaum's study could not be assessed due to the fact that CFA was not applied.

**Descriptive features**
It can generally be said that the attitudes of the children in this study were moderately positive. It was determined that the attitudes of girls, older children, and those with higher grades are more positive. At the same time, when assessed in terms of the impact that interaction with disabled individuals has on attitudes, it was found that the attitudes of those who have a family member with disabilities (especially mother/father or aunt) and those who have a person with disabilities in their near vicinity are more positive. However, having a friend with disabilities did not have an impact on attitude points. While there is data supporting our findings in the literature, there is also data that contrasts with them.

In studies conducted on children and adolescents in France (Vignes et al., 2009), Canada (Rosenbaum et al., 1986), and Belgium (Bossaert et al., 2011) peer attitudes have proved to be positive. However, these attitudes are less positive than those of Israeli children (Bossaert et al., 2011). When examined in terms of gender, it has been observed in many studies that girls' attitudes are more positive than those of boys (Armstrong et al., 2016; Gonçalves & Lemos 2014; Bossaert et al., 2011; McDougall et al., 2004; Olaoye, Oduola, Alonge, & Emechete, 2017; Olaleye et al., 2012; Schwab, 2017; Vignes et al., 2009). While two studies (Laat et al., 2013; Siperstein et al., 2007) found that gender has a minor impact, no difference was observed between gender and peer attitudes in another study (Tirosh et al., 1997).

There are studies showing that having a friend with disabilities, and having interaction with a disabled person or having a family member with disabilities ensures the development of positive attitudes (Armstrong et al., 2016; Bossaert et al., 2011; Gonçalves & Lemos 2014; Laat et al., 2013; McDougall et al., 2004; Olaleye et al., 2012; Rosenbaum et al., 1986). According to Bossaert and Petry (2013), having a friend with disabilities or a student with disabilities in the classroom does not have any impact on attitudes. Whether interacting or being friends with a person with disabilities affects children's attitudes towards their peers is acknowledged in the literature as still being a topic open for discussion (Bossaert et al., 2011; Rosenbaum et al., 1986; Siperstein et al., 2007; Vignes et al., 2009).

While there are studies stating that older children have more positive attitudes (Gonçalves & Lemos

2013, Laat et al., 2013), one study found that younger children have more positive attitudes (Armstrong et al., 2016). There are also studies stating that age does not have any impact on attitudes (Rosenbaum et al.,1988; Vignes et al., 2009). In a study conducted by Olaleye et al. (2012), it was emphasized that culture has an effect on the differences arising between children of different genders, ages, and with differing levels of interaction.

**Reliability Analysis**
The Cronbach's alpha value for the reliability of the scale was found to be 0.85, while it was found to be 0.90 for the original scale. In similar studies, the scale's Cronbach's alpha value was calculated as 0.88 (Bossaert & Petry, 2013) and 0.90 (Tirosh, 1997). It can be seen that the reliability of this study is good and is similar to that of other studies.

The alpha value was determined as 0.88 for the first analysis and as 0.89 for the next test as a result of test-retest analyses. Rosenbaum (1986) and Tirosh (1997) found theirs to be 0.73. It was also determined that there is a good relationship between the factors in the test-retest correlations of our study. It can be said that this study has therefore provided more reliable results compared to other studies conducted thus far.

**CONCLUSION AND RECOMMENDATIONS**
By assessing the validity and reliability of the CATCH scale in this study in order to be able to apply the scale in Turkey, the factorial structure of the scale has been given a new dimension in accordance with Turkish culture. It is clear that attitudes differ from culture to culture and between different societies, as shown by the new dimensions that have been created. The new subscales have been renamed as follows: *Interaction and Acceptance, Avoidance, Pity, Sense of Affinity.* When the names of the subscales are taken into consideration, it can be said that they reflect the general attitude towards people with disabilities within Turkish society. The main attitudes have been found to occur due to underlying behaviors such as exclusion, stigmatization, and separation, forming the basis for the hardships faced by children and adults with disabilities in many areas. Similarly, in a study conducted in 30 less developed countries, attention was brought to the fact that behaviors such as exclusion, pity, stigmatization, and avoidance are commonly seen and that they impact very negatively on children with disabilities.

The moderately positive attitudes and new dimensions attained as a result of this present study highlight the fact that educational systems in less developed and developing countries struggle to engender positive attitudes towards people with disabilities, and they also show that social attitudes are still negative towards those with disabilities in these countries. Determining existing attitudes is an important factor in developing positive attitudes in this regard. As a result of this validity and reliability study, the usability of the scale for determining the per attitudes of Turkish children between the ages of 9-13 towards people with disabilities has been proven. The last Turkish version of the Chedoke-McMaster Attitudes Towards Children with Handicaps (CATCH) scale was shown in appendix.

**REFERENCES**
Alderfer, M. A., Wiebe, D. J., & Hartmann, D. P. (2001). Social behaviour and illness information interact to influence the peer acceptance of children with chronic illness. *British Journal of Health Psychology, 6*(3), 243-255. **[CrossRef]**
Alves, S., & Lopes-dos-Santos, P. (2013). Measuring Students' Attitudes Towards Peers with Disabilities Using a Por-

tuguese Version of the CATCH Scale. Meeting of the European Conference on Educational Research. Retrieved from https://www.eera-ecer.de/ecer-programmes/conference/8/contribution/22467/

Armstrong, M., Morris, C., Abraham, C., Ukoumunne, O. C., & Tarrant, M. (2016). Children's contact with people with disabilities and their attitudes towards disability: A cross-sectional study. *Disabil Rehabil An Int Multidiscip J*, *38*(9), 879-888. [CrossRef]

Armstrong, R. W., Rosenbaum, P. L., & King, S. M. (1987). A randomized controlled trial of a buddy program designed to improve children's attitudes toward disabled peers. *Dev Med Child Neurol*, *29*, 327-336. [CrossRef]

Bossaert, G., & Petry, K. (2013). Factorial validity of the Chedoke-McMaster Attitudes towards Children with Handicaps Scale (CATCH). *Res Dev Disabil*, *34*(4), 1336-1345. [CrossRef]

Bossaert, G., Colpin, H., Pijl, S. J., & Petry, K. (2011). The attitudes of Belgian adolescents towards peers with disabilities. *Research in Developmental Disabilities*, *32*(2), 504-509. [CrossRef]

Camkurt, M. Z. (2013). Identification of disability and related pensioning processes according to law number 2022. *Mali Çözüm Dergisi*, *119*, 81-82.

Çokluk, Ö., Şekercioğlu, G., & Büyüköztürk, Ş. (2012). Sosyal bilimler için çok değişkenli istatistik: SPSS ve Lisrel uygulamaları. Pegem Akademi Yayıncılık. 2. Baskı. Ankara. 136-194.

Çolak, M., & Çetin, C. (2014). A Research on teachers ' attitudes towards disability. *Dokuz Eylul University Faculty of Economics and Administrative Sciences Journal*, *29*(1), 191-211.

de Boer, A., Post, W. J., Pijl, S. J., & Minnaert, A. (2012). Which variables relate to the attitudes of teachers, parents and peers towards students with special educational needs in regular education? *Educational Studies*, *38*, 433-448. [CrossRef]

de Boer, A., Timmerman, M. E., Pijl, S. J., & Minnaertn, A. (2012). The psychometric evaluation of a questionnaire to measure attitudes towards inclusive education. *European Journal of Psychology of Education*, *27*, 573-589. [CrossRef]

de Laat, S., Freriksen, E., & Vervloed, M. P. J. (2013). Attitudes of children and adolescents toward persons who are deaf, blind, paralyzed or intellectually disabled. *Res Dev Disabil*, *34*(2), 855-863. [CrossRef]

Dunst, C. J. (2014). Meta-analysis of the effects of Puppet Shows on attitudes toward and knowledge of individuals with disabilities. *Exceptional Children*, *80*(2), 136-148. [CrossRef]

Godeau, E., Vignes, C., Sentenac, M., Ehlinger, V., Navarro, F., Grandjean, H., et al. (2010). Improving attitudes towards children with disabilities in a school context: A cluster randomized intervention study. *Dev Med Child Neurol*, *52*(10), e236-242. [CrossRef]

Gonçalves, T., & Lemos, M. (2014). Personal and social factors influencing students' attitudes towards peers with special needs. *Procedia-Soc Behav Sci*, *112*(Iceepsy 2013), 949-955. [CrossRef]

Holtz, K. D., & Tessman, G. K. (2007). Evaluation of a peer-focused intervention to increase knowledge and Foster positive attitudes toward children with tourette syndrome. *J Dev Phys Disabil*, *19*(6), 531-542. [CrossRef]

Kalaycı, Ş. (2014). SPSS uygulamalı çok değişkenli istatistik teknikleri. Asil Yayın Dağıtım Ltd. Şti. 6. Baskı. Ankara. 75-200.

Kavaklı, U., & Özkara, E. (2012). Rights given to handicapped people in personal, social and business life, medicolegal evaluation of handicapped cases. *Journal of Dokuz Eylul University Medical Faculty*, *26*(1), 65-66.

King, S., Rosenbaum, P., Armstrong, R., & Milner, R. (1989). An epidemiological study of children's attitudes toward disability. *Dev Med Child Neurol*, *31*, 237-245. [CrossRef]

Kline, R. B. (2005). Principles and practice of structural equation modeling (2nd ed.). New York: Guilford Press.

McDougall, J., DeWit, D. J., King, G., Miller, L. T., & Killip, S. (2004). High school aged youths' attitudes toward their peers with disabilities: the role of school and student interpersonal factors. *Int J Disabil Dev Educ*, *51*(3), 287-313. [CrossRef]

Ministry of National Education Strategy Development Presidency. (2016). National education statistics formal education 2015/'16. Retrieved from: http://sgb.meb.gov.tr/meb_iys_dosyalar/2016_03/18024009_meb_istatistikleri_orgun_egitim_2015_2016.

Olaleye, A., Ogundele, O., Deji, S., Ajayi, O., Olaleye, O., & Adeyanju, T. (2012). Attitudes of students towards peers with disability in an Inclusive School in Nigeria Disability. *CBR Incl Dev*, *23*(3), 65-75. [CrossRef]

Olaoye, O., Oduola, B., Alonge, T., & Emechete, A. (2017). Attitude towards contact with people with disabilities and knowledge of disability among health science undergraduates in a Nigerian university. *J Behav Heal*, *6*(3), 129-135. [CrossRef]

Orhan, S., & Genç, K. G. (2015). Implementations of special education services for disabled in Turkey and a comparison. *Journal of Social Policy Studies*, *35*(2), 115-146.

Rosenbaum, P. L., Armstrong, R. W., & King, S. M. (1986). Children's attitudes toward disabled peers: A self-report measure. *Journal of Pediatric Psychology*, *11*, 517-530. [CrossRef]

Rosenbaum, P. L., Armstrong, R. W., & King, S. M. (1988). Determinants of children's attitudes toward disability: A review of evidence. *Children's Health Care*, *17*, 32-39. [CrossRef]

Schwab, S. (2017). The impact of contact on students' attitudes towards peers with disabilities. *Res Dev Disabil*, *62*, 160-165. [CrossRef]

Siperstein, G. N., Parker, R. C, Bardon, J. N., & Widaman, K. F. (2007). A national study of youth attitudes toward the inclusion of students with intellectual disabilities. *Exceptional Children*, *73*(4), 435-455. [CrossRef]

Şencan, H. (2005). Sosyal ve davranışsal ölçümlerde güvenirlik ve geçerlik. Seçkin yayıncılık.1. Baskı. Ankara. 105-500.

Republic of Turkey Ministry of Family and Social Policies and Turkish Statistical Institute. (2011). Survey on problems and expectations of disabled people 2010. Retrieved from: http://eyh.aile.gov.tr/data/54a2794a369dc573a8b4aa6f/ozurlulerin_sorun_ve_beklentileri_arastirmasi_2010.pdf

Tirosh, E., Schanin, M., & Reiter, S. (1997). Children's attitudes toward peers with disabilities: The Israeli perspective. *Dev Med Child Neurol*, *39*, 811-814. [CrossRef]

Tonnsen, B. L., & Hahn, E. R. (2015). Middle school students' attitudes toward a peer with autism spectrum disorder: Effects of social acceptance and physical inclusion. *Focus Autism Other Dev Disabl*, *31*(4), 262-274. [CrossRef]

Tonta, Y. (2007). Factor Analysis. Retrieved from: http://yunus.hacettepe.edu.tr/~tonta/courses/fall2007/sb5002/sb5002-12-faktor-analizi.pdf

Vignes, C., Coley, N., Grandjean, H., Godeau, E., & Arnaud, C. (2008). Measuring children's attitudes towards peers with disabilities: A review of instruments. *Dev Med Child Neurol*, *50*(3), 182-189. **[CrossRef]**

Vignes, C., Godeau, E., Sentenac, M., Coley, N., Niavarro, F., Grandjean, H., et al. (2009). Determinants of student's attitudes towards peers with disabilities. *Dev Med Child Neurol*, *51*, 473-479. **[CrossRef]**

WHO. (2011). World report on disability. Retrieved from: https://www.who.int/disabilities/world_report/2011/report/en/

Yu, S. M., Ostrosky, M., & Fowler, S. A. (2012). Measuring young children's attitudes toward peers with disabilities: Highlights from the research. *Topics Early Child Spec Educ*, *32*(3), 132-142. **[CrossRef]**

## Appendix

**Açıklama:** Değerli çocuklar, bu anket engelli çocuklarla ilgili ne bildiğiniz ve ne düşündüğünüzle ilgilidir. Engelli olmak; yürürken, konuşurken, el ve kollarını kullanırken, görme, duyma ve anlamada zorlanmak demektir. Engelli insanlar, soğuk algınlığı olan veya bacağını kıran insanlar gibi kısa süre sonra iyileşmezler; aksine uzun süre engelleriyle yaşarlar.

Aşağıda soruları nasıl cevaplayacağınız hakkında bazı açıklamalar bulunmaktadır. Açıklamayı okuyun ve her bir açıklamada ne hissettiğinizi düşünün. İşaretlemek için **5** seçeneğiniz bulunuyor. Örnek olarak;

- Eğer engelli çocuklarla konuşmaktan gerçekten nefret ediyorsan, "**Kesinlikle Katılmıyorum**", çünkü açıklamanın tamamına katılmıyorsundur;
- Engelli çocuklarla konuşmaktan hoşlanmıyorsan "**Katılmıyorum**",
- Açıklama ile ilgili gerçekten ne hissettiğini bilmiyorsan "**Kararsızım**"
- Engelli çocuklarla konuşmaktan hoşlanıyorsan "**Katılıyorum**"
- Engelli çocuklarla konuşmaktan gerçekten hoşlanıyorsanız "**Kesinlikle Katılıyorum**" kutusunu seçersiniz. Açıklamalar hakkında ne hissettiğine karar verip, **5 seçenekten birini X** ile işaretle ya da **daire** içine al.

**Not:** Elde edilen veriler yalnız araştırmacı tarafından ve bilimsel amaçlı olarak kullanılacak, kimlik bilgisi saklanılacaktır. **Lütfen her soruyu dikkatle okuyup içtenlikle cevaplayın. Bitirdiğin zaman bütün maddeleri cevapladığından emin olmak için işaretlemelerini tekrar kontrol et.**

Katılımınız ve desteğiniz için teşekkür ederiz.

### "CHEDOKE-MCMASTER ENGELLİ ÇOCUKLARA YÖNELİK TUTUMLAR ÖLÇEĞİ''
#### MADDELER

1.  Engelli bir çocuğun yanımda oturması beni endişelendirmez.

    a)Kesinlikle Katılmıyorum       b)Katılmıyorum       c)Kararsızım       d) Katılıyorum       e)Kesinlikle Katılıyorum

2.  Engelli bir çocuğu arkadaşımla tanıştırmak istemem.

    a)Kesinlikle Katılmıyorum       b)Katılmıyorum       c)Kararsızım       d) Katılıyorum       e)Kesinlikle Katılıyorum

3.  Engelli çocuklar kendileriyle ilgili birçok şeyi yapabilirler.

    a)Kesinlikle Katılmıyorum       b)Katılmıyorum       c)Kararsızım       d) Katılıyorum       e)Kesinlikle Katılıyorum

4.  Engelli bir çocuğa ne söyleyeceğimi bilemem.

    a)Kesinlikle Katılmıyorum       b)Katılmıyorum       c)Kararsızım       d) Katılıyorum       e)Kesinlikle Katılıyorum

5.  Engelli çocuklar oyun oynamaktan hoşlanırlar.

    a)Kesinlikle Katılmıyorum       b)Katılmıyorum       c)Kararsızım       d) Katılıyorum       e)Kesinlikle Katılıyorum

6.  Engelli çocuklar için üzülürüm.

    a)Kesinlikle Katılmıyorum       b)Katılmıyorum       c)Kararsızım       d) Katılıyorum       e)Kesinlikle Katılıyorum

7.  Engelli çocuklar yetişkinlerin onlara çok ilgi göstermesini beklerler.

    a)Kesinlikle Katılmıyorum       b)Katılmıyorum       c)Kararsızım       d) Katılıyorum       e)Kesinlikle Katılıyorum

8.  Engelli bir çocuğu doğum günü partime davet ederim.

    a)Kesinlikle Katılmıyorum       b)Katılmıyorum       c)Kararsızım       d) Katılıyorum       e)Kesinlikle Katılıyorum

9.  Engelli bir çocuktan korkarım.

    a)Kesinlikle Katılmıyorum       b)Katılmıyorum       c)Kararsızım       d) Katılıyorum       e)Kesinlikle Katılıyorum

10  Tanımadığım engelli bir çocukla konuşabilirim.

    a)Kesinlikle Katılmıyorum       b)Katılmıyorum       c)Kararsızım       d) Katılıyorum       e)Kesinlikle Katılıyorum

11   Engelli çocuklar arkadaş edinmekten hoşlanmazlar.

 a)Kesinlikle Katılmıyorum  b)Katılmıyorum  c)Kararsızım  d) Katılıyorum  e)Kesinlikle Katılıyorum

12   Engelli bir çocukla komşu olmayı isterim.

 a)Kesinlikle Katılmıyorum  b)Katılmıyorum  c)Kararsızım  d) Katılıyorum  e)Kesinlikle Katılıyorum

13   Engelli çocuklar kendi durumlarına üzülürler.

 a)Kesinlikle Katılmıyorum  b)Katılmıyorum  c)Kararsızım  d) Katılıyorum  e)Kesinlikle Katılıyorum

14   Engelli bir çocuğun yakın arkadaşım olmasından mutluluk duyarım.

 a)Kesinlikle Katılmıyorum  b)Katılmıyorum  c)Kararsızım  d) Katılıyorum  e)Kesinlikle Katılıyorum

15   Engelli bir çocuktan uzak durmaya çalışırım

 a)Kesinlikle Katılmıyorum  b)Katılmıyorum  c)Kararsızım  d) Katılıyorum  e)Kesinlikle Katılıyorum

16   Engelli çocuklar benim kadar mutludur.

 a)Kesinlikle Katılmıyorum  b)Katılmıyorum  c)Kararsızım  d) Katılıyorum  e)Kesinlikle Katılıyorum

17   Engelli bir arkadaşımı diğer arkadaşlarım kadar sevmem.

 a)Kesinlikle Katılmıyorum  b)Katılmıyorum  c)Kararsızım  d) Katılıyorum  e)Kesinlikle Katılıyorum

18   Engelli çocuklar nasıl uygun davranılacağını bilirler.

 a)Kesinlikle Katılmıyorum  b)Katılmıyorum  c)Kararsızım  d) Katılıyorum  e)Kesinlikle Katılıyorum

19   Sınıfta engelli bir çocuğun yanına oturmak istemem.

 a)Kesinlikle Katılmıyorum  b)Katılmıyorum  c)Kararsızım  d) Katılıyorum  e)Kesinlikle Katılıyorum

20   Engelli bir çocuk beni evine davet ederse çok mutlu olurum.

 a)Kesinlikle Katılmıyorum  b)Katılmıyorum  c)Kararsızım  d) Katılıyorum  e)Kesinlikle Katılıyorum

21   Engelli birine bakmamaya çalışırım.

 a)Kesinlikle Katılmıyorum  b)Katılmıyorum  c)Kararsızım  d) Katılıyorum  e)Kesinlikle Katılıyorum

22   Engelli bir çocukla okul projesi yapmak beni mutlu eder.

 a)Kesinlikle Katılmıyorum  b)Katılmıyorum  c)Kararsızım  d) Katılıyorum  e)Kesinlikle Katılıyorum

23   Engelli bir çocuğu evimizde kalmaya davet ederim.

 a)Kesinlikle Katılmıyorum  b)Katılmıyorum  c)Kararsızım  d) Katılıyorum  e)Kesinlikle Katılıyorum

24   Engelli birinin yakınında olmak beni korkutur.

 a)Kesinlikle Katılmıyorum  b)Katılmıyorum  c)Kararsızım  d) Katılıyorum  e)Kesinlikle Katılıyorum

25   Engelli çocuklar birçok şeyle ilgilenirler.

 a)Kesinlikle Katılmıyorum  b)Katılmıyorum  c)Kararsızım  d) Katılıyorum  e)Kesinlikle Katılıyorum

26   Engelli bir çocuk beni doğum gününe davet ederse çekinirim.

 a)Kesinlikle Katılmıyorum  b)Katılmıyorum  c)Kararsızım  d) Katılıyorum  e)Kesinlikle Katılıyorum

27   Engelli bir çocuğa sırrımı söyleyebilirim.

 a)Kesinlikle Katılmıyorum  b)Katılmıyorum  c)Kararsızım  d) Katılıyorum  e)Kesinlikle Katılıyorum

28   Engelli çocuklar çoğu zaman üzgündür.

 a)Kesinlikle Katılmıyorum  b)Katılmıyorum  c)Kararsızım  d) Katılıyorum  e)Kesinlikle Katılıyorum

29   Engelli bir çocukla birlikte olmaktan hoşlanırım.

 a)Kesinlikle Katılmıyorum  b)Katılmıyorum  c)Kararsızım  d) Katılıyorum  e)Kesinlikle Katılıyorum

30   Engelli bir çocuk gördüğümde üzülürüm.

 a)Kesinlikle Katılmıyorum  b)Katılmıyorum  c)Kararsızım  d) Katılıyorum  e)Kesinlikle Katılıyorum

31   Engelli çocuklar bir şeyler yapmak için daha çok yardıma ihtiyaç duyarlar.

 a)Kesinlikle Katılmıyorum  b)Katılmıyorum  c)Kararsızım  d) Katılıyorum  e)Kesinlikle Katılıyorum

Araştırmacı için not: Bu ölçek pozitif ve negatif ifadelerden oluşmaktadır. Negatif ifade belirten maddeler ters kodlanacaktır. Her negatif ifadeye verdiği yüksek puan, çocuğun bu konudaki tutumunun olumsuz olduğunu işaret etmektedir. Ölçekten alınacak puan ne kadar yüksek olursa çocukların tutumları bu oranda olumludur denilebilmektedir. İyi çalışmalar dilerim.

**Ecem ÇİÇEK GÜMÜŞ**

**CATCH ölçeği alt boyutları, alt boyutlardan alınacak puanlar ve negatif/pozitif anlam içeren ifadeler:**

**Boyut1: Etkileşim ve Kabullenme (10 madde; Alacağı max puan 40)**

1. Engelli bir çocuğun yanımda oturması beni endişelendirmez. (+)
8. Engelli bir çocuğu doğum günü partime davet ederim. (+)
10. Tanımadığım engelli bir çocukla konuşabilirim. (+)
12. Engelli bir çocukla komşu olmayı isterim. (+)
14. Engelli bir çocuğun yakın arkadaşım olmasından mutluluk duyarım. (+)
20. Engelli bir çocuk beni evine davet ederse çok mutlu olurum. (+)
22. Engelli bir çocukla okul projesi yapmak beni mutlu eder. (+)
23. Engelli bir çocuğu evimizde kalmaya davet ederim. (+)
27. Engelli bir çocuğa sırrımı söyleyebilirim. (+)
29. Engelli bir çocukla birlikte olmaktan hoşlanırım. (+)

**Boyut2: Kaçınma (10 madde; Alacağı max puan 40)**

2. Engelli bir çocuğu arkadaşımla tanıştırmak istemem. (-)
4. Engelli bir çocuğa ne söyleyeceğimi bilemem. (-)
9. Engelli bir çocuktan korkarım. (-)
11. Engelli çocuklar arkadaş edinmekten hoşlanmazlar. (-)
15. Engelli bir çocuktan uzak durmaya çalışırım. (-)
17. Engelli bir arkadaşımı diğer arkadaşlarım kadar sevmem. (-)
19. Sınıfta engelli bir çocuğun yanına oturmak istemem. (-)
21. Engelli birine bakmamaya çalışırım. (-)
24. Engelli birinin yakınında olmak beni korkutur. (-)
26. Engelli bir çocuk beni doğum gününe davet ederse çekinirim. (-)
Boyut3: Acıma (6 madde; Alacağı max puan 24)
6. Engelli çocuklar için üzülürüm. (-)
7. Engelli çocuklar yetişkinlerin onlara çok ilgi göstermesini beklerler. (-)
13. Engelli çocuklar kendi durumlarına üzülürler. (-)
28. Engelli çocuklar çoğu zaman üzgündür. (-)
30. Engelli bir çocuk gördüğümde üzülürüm. (-)
31. Engelli çocuklar bir şeyler yapmak için daha çok yardıma ihtiyaç duyarlar. (-)
Boyut4: Benzer olma/Benzerlik (5 madde; Alacağı max puan 20)
3. Engelli çocuklar kendileriyle ilgili birçok şeyi yapabilirler. (+)
5. Engelli çocuklar oyun oynamaktan hoşlanırlar. (+)
16. Engelli çocuklar benim kadar mutludur. (+)
18. Engelli çocuklar nasıl uygun davranılacağını bilirler. (+)
25. Engelli çocuklar birçok şeyle ilgilenirler. (+)