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# Instruction of Safety Skills for the Individuals with Intellectual Disabilities

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# Instructıon of Safety Skılls for The Indıvıduals wıth Intellectual Dısabılıtıes*

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## Abstract

This study aims to develop a valid and reliable assessment tool for the assessment of safety skills of individuals with intellectual disabilities, examine the effectiveness of the Safety Skills Instruction Program (SSIP) in teaching safety skills to these individuals, determine the preservation of skills after instruction by observation, and determine the views of parents and students respecting the teaching of safety skills. This research is designed in an explanatory sequential design, which is one of the mixed research methods. The examination of the construct validity process has indicated that the Safety Skills Test (SST) has a structure of four factors. 540 individuals with intellectual disabilities participated in the development of the measurement tool, and 32 individuals with intellectual disabilities participated in the implementation of the curriculum. It is determined that the level of safety skills of the students with mild intellectual disabilities who have attended the instruction is higher than the ones who have not attended, according to the mean ranks. It is found that the safety skills of students are preserved at a rate of 85–85%, according to the observation data gathered one week later. According to the result of the interview data, students and parents feel pleased about the instruction and think that the skills have been learned to a large extent.

**Keywords:** İndividual with intellectual disability, Safety skills, Behavioral skills training, İnstruction with a board game

## Introduction

Safety skills, which are among the skills necessary for individuals to lead their lives independently, include pedestrian safety, prevention of home accidents, first aid, use of emergency numbers, fire safety, and protection from abuse (Gast et al., 1992; Mechling, 2008; Jang et al., 2016). Due to the widespread use of social media among children and young people, internet safety has also become an important safety skill that needs to be taught.

When it comes to safety skills, children with intellectual disabilities (ID) are especially at higher risk of sexual abuse and other dangers (Sherrard et al, 2004; Tang & Lee, 1999). Therefore, it is important to develop effective prevention and intervention methods for these individuals. Literature reveals that safety skills are taught by several instruction methods, like errorless teaching (Batu et al., 2004), direct instruction (Christensen et al., 1996), game-based teaching (Coles et al., 2007; Foxx et al., 1984), video modeling (Bevill & Gast, 1988), social stories (Kutlu & Kurt, 2017; Kutlu, 2016; Süzer, 2015), and behavioral skills training (BST) (Bevill & Gast, 1998; Ergenekon & Çolak, 2019; Matson, 1980a).

Among these methods, BST is most frequently preferred (Bevill & Gast, 1998; Ergenekon & Çolak, 2019; Mechling, 2008). BST is a teaching method that allows the student to rehearse the behavior by providing more than one opportunity for modeling after presenting clear and concrete instructions regarding the skill and then aiming to shape the behavior with reinforcing and corrective feedback. (Stewart et al., 2007). BST generally includes discussion, role-playing rehearsal, and corrective feedback stages in teaching behaviors (Bevill & Gast, 1998; Dixon et al., 2010).

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Another preferred method for teaching safety skills is game-based teaching (Foxx et al., 1984; Padgett et al., 2006). Some types of games used in teaching safety skills to children are scribbling activities used to teach interpersonal boundaries, therapeutic games using various toys that refer to the concept of safety (Cavett, 2017), and teaching with board games (Foxx et al., 1984). This research contains the safety skills instruction program, which includes BST and board games as enhancement activities together.

While preparing individuals with disabilities to function independently in the least restrictive environment, it is necessary to ensure that they have the necessary skills to avoid dangers and to react appropriately when dangerous situations occur (Collins, Wolery, & Gast, 1991). As individuals with disabilities begin to function more independently and receive less support in the skills necessary to sustain their lives, they are more exposed to potential danger situations, and the need for appropriate teaching of safety skills to these individuals increases (Gast et al., 1992; Spivey & Mechling, 2016). Literature reveals that one or more of the safety skill areas, such as pedestrian safety, prevention of home accidents, first aid, appropriate reaction to strangers' traps, fire safety, and the use of emergency numbers, are taught together (Clees & Gast, 1994; Mechling, 2008; Jang et al., 2016). In the literature, no research has been found in which the comprehensive teaching of safety skills with BST was supported by game activities, the students were taught as a group, the assessment was made with a valid and reliable measurement tool, and the results were supported by observation and interview data. Therefore, it was necessary to conduct such a study. This research is very important in terms of developing a measurement tool, teaching safety skills as a whole with group teaching, evaluating the information learned at the end of the teaching with a standard assessment tool and in practice, and including interview data for practice. In addition, it is also important that the measurement tool developed and validity and reliability analyses performed in the study, the curriculum based on BST, and the box game can be used by other researchers and teachers involved in the implementation.

### The Purpose of the Study

This study aims to develop a valid and reliable measurement tool to assess the safety skills of individuals with ID related to accidents, first aid, personal safety, and emergency numbers; to examine the effectiveness of the Safety Skills Instruction Program (SSIP) in teaching safety skills to these individuals; and to determine the post-teaching researcher's observations and the views of students and parents on teaching.

In line with this general purpose, the following sub-objectives were examined:

1. What is the level of validity and reliability of SST in the assessment of the safety skills of individuals with ID?
2. Were there significant differences between the pretest scores, pretest-posttest scores, and post-test scores of the individuals who participated and did not participate in the SSIP, applied to individuals with ID?
3. According to the results of the observational assessment after the instruction, what is the level of preservation of the safety skills of the individuals with ID regarding accidents, first aid, personal safety, and emergency numbers?
4. What are the views of parents and students on teaching safety skills related to accidents, first aid, personal safety, and emergency numbers?

## Method

### Research Design

This research was designed with a mixed-methods explanatory sequential design and consists of five stages: (1) The development process of SST; (2) The implementation process of SSIP; and (3) The process of observing the level of application of safety skills by individuals with ID (4) The interview process regarding SSIP; and (5) The process of data merging.

### Sample

In the first phase of the research, during the development of the SST, 540 students with ID in various provinces of Turkey participated. For exploratory factor analysis (EFA), 340 data points were collected, and EFA was

performed on the remaining 328 after the extreme values were removed. 200 data points were collected for confirmatory factor analysis (CFA).

Half of the participants in the EFA study group are in the 11–15 age range, 26.8% are in the 16–19 age range, and 23.2% are in the 6–10 age range. 172 of the participants are female, and 156 are male. The majority of the participants (85.7%) do not have any additional disabilities. Half of the participants attend inclusive education (51.2%), while the other half attend a special education classroom (19.2%), a Special Education Practice Center (13.1%), and a Special Education Vocational School (16.5%).

More than half of the participants in the CFA study group were between the ages of 11-15 (57.5%), 29.5% were between the ages of 16 and 18, and 13% were between the ages of 6 and 10. 89 of the participants are female, and 111 are male. The majority of the participants (87.5%) do not have any additional disabilities. While more than half of the participants attend inclusive education (68.5%), 11% attend a special education classroom, and 20.5% attend a Special Education Center.

In the second stage, the implementation process of SSIP consisted of a total of 32 (16 in the experimental group, 16 in the control group) students with mild ID, aged 7–16, attending special education classes and a special education center.

In the third stage, observational data regarding the display of safety skills by the experimental group was collected after implementation. In the stage phase, interviews were conducted with the experimental group through the focus group technique and with their parents through individual interviews.

In the fourth stage of the study, interviews were conducted with the students who participated in the experimental dimension of the research through focus group interviews and the parents through individual interviews, in which their opinions were obtained about SSIP. Three of the parents in the study group participated in the study with their two children with mild ID, and 13 parents were interviewed. Two of the parents are fathers, and 11 are mothers. The ages of the fathers are 43 and 45, and both are primary school graduates. The ages of the mothers vary between 33 and 45, with 3 of them high school graduates, 7 of them primary school graduates, and one of them secondary school graduates.

### Data Collection Tools

Three types of data collection tools were used in this study: (1) the SST, (2) the Safety Skills Observation Record Form, and (3) the Student and Parent Interview Forms.

(1) ***Safety Skills Test (SST):*** In the first stage of the study, the following steps were followed in the validity and reliability procedure of the SST: (a) literature review, scenario, and item pool formation; (b) arranging the measurement tool in a ranking scale, allowing the questions to be marked as "1-Knows" or "2-Does Not Know" to determine the students' safety skills at the knowledge level, (c) obtaining an expert opinion and content validity; (d) EFA; (e) CFA; and (f) KR-20 and Cronbach Alpha (α) reliability analysis.

(2) ***Safety Skills Observation Record Form:*** The Security Skills Observation Registration Form was prepared based on the scenarios in the SST and SSIP to record the observations of the students' display of their safety skills in the simulation environment.

(3) ***Student and Parent Interview Forms:*** Interview forms were prepared to get the opinions of parents and students about SSIP. In the forms, the participants were asked about which safety skills were learned, their thoughts on the instruction, and the importance of teaching safety skills.

### Safety Skills Instruction Program (SSIP)

The instruction program on safety skills for individuals with ID in this study was organized as a program based on the scenarios included in the measurement tool and consists of two parts: a BST and a board game.

The SSIP consists of safety skill areas like (1) accidents, (2) first aid, (3) personal safety, and (4) safety skills related to emergency numbers. The stages of the first part of the instruction are as follows: (1) explaining the skill to the participants; (2) rehearsal, role-playing, and giving feedback; and (3) independent practice.

In the second part, an activity to support the instruction with a board game set covering the areas of safety skills in SSIP was included. The game consists of a 43-step track, game and information cards, guiding notes on the track, and a dice.

**Data Collection**

**(1)** ***Data Collection for the Development Process of the SST:*** Between 2018 and 2020, the SST was applied by researchers and teachers to students with IDs aged 6–19 in various cities in Turkey. The questions in the SST were read to the students by the practitioners, and the answers of the students were recorded in the forms.

**(2)** ***Data Collection for the Implementation Process of SST:*** The SST, developed in the first stage of the research, was applied as a pre-test and post-test in the second stage.

**(3)** ***Data Collection for the Observation Process for the Participants' Levels of Implementation of Safety Skills:*** In the third stage of the research, observation data were collected in the experimental group in the simulation setting by following the skill steps in the SSIP within the week following the instruction. During the observation periods ranging from 5:07 to 12:20 minutes, scenarios were read to the participants and their situations of displaying the relevant safety skills were recorded on video. The recordings were monitored by two observers, and data were collected using partial-interval recording. The videos were divided into 30-second intervals, and it was recorded on the forms whether the student performed the relevant safety skill within this time interval after the instruction was given.

**(4)** ***Data Collection for the Interview Process Regarding SSIP:*** In the fourth stage, the opinions of the parents on the teaching of the safety skills applied in this research were determined through semi-structured individual interviews; the opinions of the students were taken through the focus group interview.

**Data Analysis**

**(1)** ***Data Analysis for the Development Process of SST:*** In the first stage of the research, data were collected with the SST, the items of which were formed as a result of the literature review and expert opinion, and EFA, CFA, validity, and reliability studies were carried out. This process took place in five stages: (a) determining the difficulty and distinctiveness parameters of the items; (b) EFA; (c) examining the item difficulty and discrimination parameters one more time for the items planned to be included in the final version of the form; (d) CFA; and (e) reliability analysis. M-Plus version 7.1 was used in EFA and CFA analyses.

**(2)** ***Data Analysis for the Implementation Process of SST:*** In the second stage of the research, the effectiveness of SSIP was analyzed through relational descriptive analysis. Although the data obtained from pre-test and post-test measurements showed kurtosis ($a_4$=-1,124) and skewness ($a_3$=-714) coefficients that met the normality condition, the Shapiro-Wilk coefficient (w=.84, p=0,05) used in samples less than 50 did not meet the normality condition, and because the data were included in the ranking scale, the Mann-Whitney U test and Wilcoxon Signed Ranks test were applied at this stage. The effect size for the Z value was calculated with the formula $r=Z/\sqrt{N}$. In the interpretation of the effect size, Cohen stated that the r-value indicates a small effect at the level of .10, a medium effect at the level of .30, and a large effect at the level of .50 (Cohen, 1988; Field, 2009). The interpretation of the effect size is based on the intervals specified by Cohen.

**(3)** ***Data Analysis for the Observation Process for the Participants' Levels of Implementation of Safety Skills:*** Observation records were monitored by two observers, and the inter-observer reliability was found to be 100%. In the Observation Record Form, a total score was obtained by giving "1" point to each skill step performed by the participants, and the averages of these scores were compared with the experimental group post-test data.

**(4)** ***Data Analysis for the Interview Process Regarding SSIP:*** Interview data were analyzed by descriptive analysis and interpreted according to predetermined themes. The data were coded by two raters, and the inter-rater reliability was found to be 100%.

**(5)** ***Data Merging:*** In the last stage, the observation data and the interview data were merged to support the data obtained from the second stage, in which the experimental model was applied.

## Findings

***(1) Findings Obtained from the Development Process of SST***

The analyses made to test the construct validity of the SST were carried out in five stages. These stages are as follows: (a) examination of difficulty and discrimination parameters of the items; (b) EFA; (c) examination of item difficulty and discrimination parameters for the items planned to be included in the final version of the form as a result of EFA; (d) CFA; and (e) reliability analysis.

***(a)*** *Findings for item pool difficulty and discrimination analysis:* In the first stage of the data collection tool development process, difficulty and distinctiveness parameters were calculated for the 91 items that make up the item pool. First, the difficulty parameter, which shows the percentage of correct answers to the items, was calculated using the total number of correct answers (Cohen & Swerdlik, 2009; Baykul, 2015). Then, the discrimination parameters were determined by the point-biserial correlation method. The ranges given in Table 1 were taken as the basis for item difficulty and discrimination index interpretations.

Table 1. The ranges for item parameter interpretations (Ebel & Frisbie, 199; Şeker &0 Gençdoğan, 2006)

| **Item Difficulty Index** | | **Item Discrimination Index** | |
|---|---|---|---|
| 0,20≥ pj ≥ 0,00 | Very Difficult | rjx≤0,19 | Low distinctiveness, not suitable |
| 0,40≥ pj ≥ 0,21 | Difficult | 0,29≥rjx≥0,20 | Insufficient distinctiveness, the item should be corrected |
| 0,60≥ pj ≥ 0,41 | Medium Difficulty | 0,39≥rjx≥0,30 | Good distinctiveness, suitable |
| 0,80≥ pj ≥ 0,61 | Easy | 1,00≥rjx≥0,40 | High distinctiveness, suitable |
| 1,00≥ pj ≥ 0,80 | Very Easy | | |

In the item difficulty analysis, 59 of the 91 items were at the level of "easy" 24 items were at the level of "medium difficulty" and 8 items were at the level of "very difficult". Item difficulty indexes range from 0.14 to 0.88. The easiest item is item 54; the most difficult item is item 45. The difficulty level of the 91-item item pool was determined to be 0.62. Although the difficulty distribution of the items in the item pool is not homogeneous, the average difficulty level of the whole test can be interpreted as "medium difficulty-easy". No item was removed from the test according to item difficulty levels.

As a result of the item discrimination index values, 77 items had high discrimination, 13 items had good discrimination, and one item was found to be insufficient. Item discrimination values vary between 0.29 and 0.62. Item 57 has the highest distinctiveness value, and item 44 has the lowest distinctiveness value. The discrimination index value of item 44, which has insufficient discrimination, was calculated as 0.29. This item has been revised.

***(b)*** *Findings on the EFA process:* In the EFA process, which was carried out after examining the item parameters, the weighted least squares mean and variance adjusted (WLSMV) method was used as the estimation method since all of the items were in a categorical structure. In addition, polychoric correlations were used for EFA. It is recommended to use polychoric correlations and WLSMV, which is the most appropriate estimation method, in the analyses used for categorical variables (Barendse, Oort, & Timmerman, 2015; Muthén & Muthén, 2010).

In the examination of factor loading parameters, the factor loadings of items with factor loadings below 0.40 were interpreted as insufficient (Cokluk, Şekercioğlu, & Büyüköztürk, 2018). In addition, items that loaded more than 0.40 in more than one factor and that the difference between factor loads was below 0.10 were considered to have an overlapped loading. Items that did not load more than 0.40 in any factor or that had overlapped loading were removed.

Root Mean Squared Error of Approximation (RMSEA), Comparative Fit Index (CFI), and Tucker-Lewis Index (TLI) fit indices were examined to evaluate model data fit in both EFA and CFA processes. In the literature review, it has been observed that researchers tend to prefer the cut-off criteria used for other data types in cases where categorical variables are estimated with the WLSMV method (Xia & Yang, 2018). RMSEA <.06, CFI> .95 and TLI> .95 cut-off criteria for a good model-data fit are widely discussed (Hu and Bentler, 1999). In addition, there are also sources revealing that the .05 - .08 range for RMSEA and a criterion of > .90 for TLI

indicate a good, acceptable fit (Bentler & Bonet, 1980; Jöreskog & Sörbom, 1993). The analysis results were evaluated based on these cut-off criteria.

According to the eigenvalues of the factors, a total of 18 factors had eigenvalues greater than 1. However, it was decided that theoretically, the items couldn't fall under the 18 factors. The factor analysis was limited to 4 factors, and after the examination, the items with insufficient factor loading and overlapping were removed and the analyses were repeated. As a result of the factor analysis being repeated nine times, 44 of 91 items were decided to be removed. The factor loads of the remaining 47 items are shared in Table 2.

Table 2. Item factor loadings remaining in the item pool

| | **Factor Number** | | | | | **Factor Number** | | | |
|---|---|---|---|---|---|---|---|---|---|
| **Item Number** | **1** | **2** | **3** | **4** | **Item Number** | **1** | **2** | **3** | **4** |
| I1 | **0.445*** | 0.184* | 0.190 | -0.078 | I39 | -0.035 | 0.153 | **0.683*** | 0.098 |
| I2 | **0.652*** | 0.027 | 0.055 | 0.001 | I40 | -0.042 | -0.025 | **0.871*** | -0.069 |
| I3 | **0.475*** | 0.129 | 0.222* | 0.022 | I41 | 0.044 | 0.157* | **0.759*** | 0.107 |
| I7 | **0.482*** | 0.103 | 0.254* | 0.033 | I42 | -0.024 | 0.009 | **0.936*** | 0.015 |
| I11 | **0.457*** | -0.048 | 0.139 | -0.013 | I48 | 0.344* | -0.104 | **0.610*** | -0.102 |
| I16 | **0.683*** | -0.200* | 0.141 | -0.089 | I49 | 0.291* | 0.026 | **0.559*** | 0.133 |
| I21 | **0.573*** | 0.036 | 0.236* | 0.051 | I50 | 0.212* | 0.016 | **0.623*** | -0.156* |
| I24 | **0.696*** | -0.157 | -0.086 | -0.039 | I51 | 0.388* | -0.024 | **0.634*** | -0.032 |
| I26 | **0.613*** | 0.019 | 0.085 | 0.128 | I52 | 0.063 | 0.102 | **0.861*** | 0.019 |
| I53 | **0.859*** | -0.229* | -0.017 | 0.111 | I74 | 0.119 | -0.017 | **0.635*** | 0.058 |
| I54 | **0.869*** | -0.236 | 0.033 | 0.076 | I75 | 0.092 | -0.305* | **0.581*** | 0.352* |
| I55 | **0.867*** | -0.201 | 0.045 | 0.171* | I76 | 0.059 | -0.124 | **0.781*** | 0.248* |
| I56 | **0.801*** | -0.126 | 0.135 | 0.086 | I72 | 0.110 | 0.045 | 0.004 | **0.729*** |
| I57 | **0.885*** | -0.214 | 0.055 | 0.145 | I78 | -0.290* | 0.000 | 0.263* | **1.000*** |
| I58 | **0.673*** | 0.175 | 0.142 | -0.053 | I79 | -0.268* | 0.036 | 0.247* | **1.012*** |
| I59 | **0.760*** | 0.150 | 0.216* | -0.123 | I82 | 0.006 | -0.014 | -0.074 | **0.970*** |
| I60 | **0.524*** | 0.109 | 0.095 | 0.114 | I85 | 0.123* | -0.026 | -0.098 | **0.930*** |
| I61 | **0.568*** | 0.134 | 0.160 | 0.069 | I88 | 0.073 | -0.091 | 0.008 | **0.915*** |
| I62 | **0.812*** | 0.255* | -0.044 | 0.081 | I90 | 0.029 | 0.021 | -0.003 | **0.949*** |
| I63 | **0.901*** | 0.192 | -0.053 | -0.141 | I91 | 0.075 | 0.106 | -0.042 | **0.952*** |
| I64 | **0.987*** | 0.181 | -0.192 | -0.030 | **Factor Number** | **Eigenvalue** | | | |
| I33 | 0.379* | **0.627*** | -0.164 | 0.057 | 1 | 21,056 | | | |
| I34 | -0.017 | **0.917*** | 0.296* | -0.021 | 2 | 5,349 | | | |
| I35 | -0.025 | **0.915*** | 0.356* | -0.018 | 3 | 4,378 | | | |
| I36 | 0.129 | **0.720*** | 0.035 | 0.045 | 4 | 2,665 | | | |
| I37 | 0.110 | **0.869*** | 0.085 | 0.047 | | | | | |
| I38 | 0.358* | **0.866*** | -0.023 | 0.023 | | | | | |

*p<0,05

As seen in Table 2, the item factor loads vary between 0.445 and 1.012. Item 79 has the highest factor load value, and item 1 has the lowest factor load value. The item factor load being over 1.00 does not indicate an error. Jöreskog (1999) stated that the item factor loads under the factors with a correlation between them may be above 1 due to the regression coefficient feature. Correlations in the range of 0.086 – 0.598 were observed between the four factors. A significant positive correlation was found between the 1st factor and the 3rd and 4th factors at the levels of 0.598 and 0.433, respectively ($p<0.05$). In addition, a significant correlation at the level of 0.271 was found between the 3rd and 4th factors ($p<0.05$). Other binary correlations between factors are statistically insignificant.

The eigenvalues for the four factors are 21,056-5.349-4.378-2.665, respectively. According to the fit indices showing the structure and data fit, the model data fit is at a good level. The RMSEA fit index is 0.040, the CFI fit index is 0.971, and the TLI fit index is 0.965.

***(c) Findings for the final form item pool difficulty and discrimination analysis:*** Item discrimination and difficulty indexes were recalculated based on the new data collected for the remaining 47 items after EFA and are presented in Table 3.

Table 3. Final form of item pool difficulty and discrimination parameters

| Item | pjx | Remark | rjx | Remark | Item | pjx | Remark | rjx | Remark |
|---|---|---|---|---|---|---|---|---|---|
| 1. | 0,59 | Medium | 0,42 | High Discrimination | 25. | 0,26 | Hard | 0,32 | High Discrimination |
| 2. | 0,73 | Easy | 0,50 | High Discrimination | 26. | 0,22 | Hard | 0,34 | High Discrimination |
| 3. | 0,48 | Medium | 0,42 | High Discrimination | 27. | 0,25 | Hard | 0,42 | High Discrimination |
| 4. | 0,42 | Mediım | 0,42 | High Discrimination | 28. | 0,77 | Easy | 0,35 | High Discrimination |
| 5. | 0,72 | Easy | 0,35 | High Discrimination | 29. | 0,79 | Easy | 0,43 | High Discrimination |
| 6. | 0,73 | Easy | 0,47 | High Discrimination | 30. | 0,84 | Easy | 0,46 | High Discrimination |
| 7. | 0,60 | Medium | 0,52 | High Discrimination | 31. | 0,74 | Easy | 0,47 | High Discrimination |
| 8. | 0,76 | Easy | 0,42 | High Discrimination | 32. | 0,86 | Easy | 0,38 | High Discrimination |
| 9. | 0,55 | Medium | 0,46 | High Discrimination | 33. | 0,73 | Easy | 0,49 | High Discrimination |
| 10. | 0,95 | Easy | 0,18 | Should Be Removed | 34. | 0,52 | Medium | 0,49 | High Discrimination |
| 11. | 0,96 | Easy | 0,23 | Should Be Corrected | 35. | 0,90 | Easy | 0,49 | High Discrimination |
| 12. | 0,96 | Easy | 0,23 | Should Be Corrected | 36. | 0,73 | Easy | 0,49 | High Discrimination |
| 13. | 0,95 | Easy | 0,24 | Should Be Corrected | 37. | 0,65 | Easy | 0,40 | High Discrimination |
| 14. | 0,94 | Easy | 0,34 | High Discrimination | 38. | 0,74 | Easy | 0,38 | High Discrimination |
| 15. | 0,86 | Easy | 0,30 | Good Discrimination | 39. | 0,69 | Easy | 0,47 | High Discrimination |
| 16. | 0,88 | Easy | 0,36 | High Discrimination | 40. | 0,67 | Easy | 0,24 | Should Be Corrected |
| 17. | 0,96 | Easy | 0,03 | Should Be Removed | 41. | 0,65 | Easy | 0,36 | High Discrimination |
| 18. | 0,94 | Easy | 0,26 | Should Be Corrected | 42. | 0,61 | Easy | 0,36 | High Discrimination |
| 19. | 0,81 | Easy | 0,34 | High Discrimination | 43. | 0,59 | Medium | 0,36 | High Discrimination |
| 20. | 0,80 | Easy | 0,39 | High Discrimination | 44. | 0,69 | Easy | 0,31 | High Discrimination |
| 21. | 0,83 | Easy | 0,38 | High Discrimination | 45. | 0,76 | Easy | 0,37 | High Discrimination |
| 22. | 0,39 | Medium | 0,46 | High Discrimination | 46. | 0,71 | Easy | 0,27 | Should Be Corrected |
| 23. | 0,26 | Hard | 0,40 | High Discrimination | 47. | 0,68 | Easy | 0,24 | Should Be Corrected |
| 24. | 0,28 | Hard | 0,40 | High Discrimination | | | | | |

According to the item difficulty index values presented in Table 3, 34 of the 47 items are easy, 8 are medium, and 5 are hard. Item difficulty index values vary between 0.22 and 0.96. The most difficult one is item 26; the easiest ones are items 11, 12, and 17. The mean of the total item difficulty index of the test is 0.69. It was deduced that the difficulty levels of the items in the final form item pool were predominantly easy, and the difficulty level of the whole test was also at the easy level.

The discrimination index values of the items vary in the range of 0.03–0.52. The discrimination indexes of items 10 and 17 are 0.18 and 0.03, respectively. Since the discrimination indexes of these two items were low, they were excluded from the final form. In addition, in line with the information that items 11, 12, 13, 18, 40, 46, and 47 needed to be corrected, amendments were made to these articles, and 45 articles remained for the final form. The mean difficulty index of 45 items was calculated at 0.68. According to this result, the removed items have not caused a serious change in the average difficulty of the test.

As a result of the construct validity examination with EFA, the measurement tool has a 4-factor structure. The factors were named Accidents, First Aid, Emergency Numbers, and Personal Safety, respectively. Safety skills related to emergency numbers refer to the ability to notify the emergency call center of situations that require serious assistance for individuals in other skill areas. Considering that it has a complementary function to all other safety skill areas in this respect, it has been evaluated that it is appropriate for the conceptual structure to include the safety skills related to emergency numbers at the end of the measurement tool. In this direction, the places of the 3rd and 4th factors were changed while generating the final form. After examining the item parameters, CFA was applied for the 4-factor, 45-item structure.

***(d)*** *Findings Regarding the Confirmatory Factor Analysis Process:* In the confirmatory factor analysis process, as in the EFA process, the WLSMV estimation method is recommended for data sets with categorical variables (Muthén & Muthén, 2010; Barendse, Oort, & Timmerman, 2015). To check whether the structure is confirmed or not, four different fit indices, such as Chi-Square/sd, RMSEA, CFI, and TLI, were examined. Hu and Bentler (1999) defined threshold values for these fit indices to be able to determine a good fit. Accordingly, when Chi-square/sd<2; RMSEA<0.06; and when CFI and TLI >0.95, it can be interpreted that the model data fit is good. In addition, it can be reported that the model data fit is at an acceptable level for CFI and TLI values greater than 0.90. The results regarding the item parameters obtained as a result of the CFA analysis are presented in Table 4.

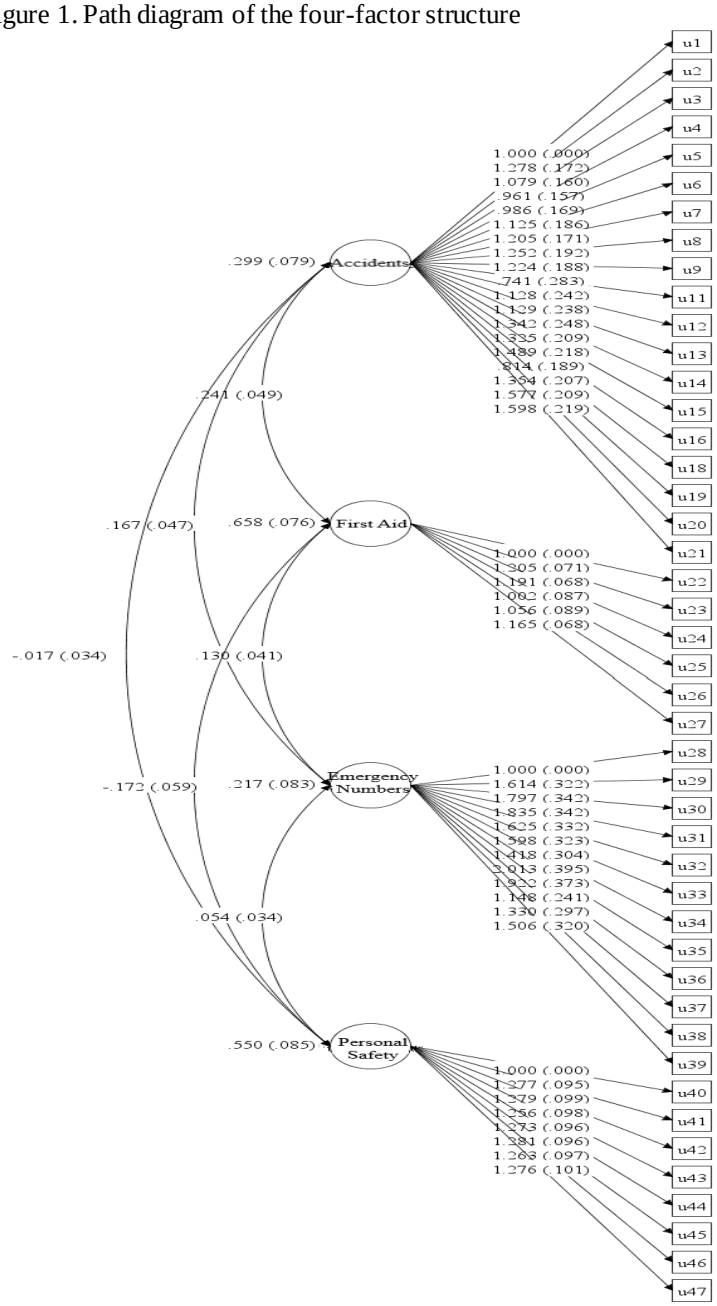
Table 4. Results on confirmatory factor analysis item parameters

| Dimension | Item Number | Factor Load | Standard Error | $R^2$ | T | T value significance level |
|---|---|---|---|---|---|---|
| Accidents | U1 | 0,547 | 0,072 | 0,299 | 7,613 | 0,000 |
| | U2 | 0,699 | 0,064 | 0,489 | 10,869 | 0,000 |
| | U3 | 0,590 | 0,067 | 0,348 | 8,793 | 0,000 |
| | U4 | 0,526 | 0,067 | 0,277 | 7,792 | 0,000 |
| | U5 | 0,539 | 0,074 | 0,291 | 7,290 | 0,000 |
| | U6 | 0,615 | 0,075 | 0,378 | 8,186 | 0,000 |
| | U7 | 0,659 | 0,062 | 0,434 | 10,612 | 0,000 |
| | U8 | 0,685 | 0,066 | 0,469 | 10,330 | 0,000 |
| | U9 | 0,670 | 0,058 | 0,449 | 11,593 | 0,000 |
| | U11 | 0,405 | 0,153 | 0,164 | 2,650 | 0,008 |
| | U12 | 0,617 | 0,085 | 0,381 | 7,271 | 0,000 |
| | U13 | 0,617 | 0,103 | 0,381 | 6,000 | 0,000 |
| | U14 | 0,734 | 0,082 | 0,539 | 8,920 | 0,000 |
| | U15 | 0,725 | 0,056 | 0,526 | 12,969 | 0,000 |
| | U16 | 0,814 | 0,051 | 0,663 | 15,850 | 0,000 |
| | U18 | 0,445 | 0,086 | 0,198 | 5,178 | 0,000 |
| | U19 | 0,741 | 0,057 | 0,549 | 12,894 | 0,000 |
| | U20 | 0,862 | 0,035 | 0,743 | 24,300 | 0,000 |
| | U21 | 0,874 | 0,039 | 0,764 | 22,132 | 0,000 |
| First Aid | U22 | 0,811 | 0,047 | 0,658 | 17,258 | 0,000 |
| | U23 | 0,978 | 0,017 | 0,956 | 56,022 | 0,000 |
| | U24 | 0,966 | 0,016 | 0,933 | 60,043 | 0,000 |
| | U25 | 0,813 | 0,061 | 0,661 | 13,327 | 0,000 |
| | U26 | 0,857 | 0,053 | 0,734 | 16,203 | 0,000 |
| | U27 | 0,945 | 0,03 | 0,893 | 31,978 | 0,000 |
| Emergency Numbers | U28 | 0,466 | 0,089 | 0,217 | 5,249 | 0,000 |
| | U29 | 0,751 | 0,054 | 0,564 | 13,868 | 0,000 |
| | U30 | 0,837 | 0,048 | 0,701 | 17,438 | 0,000 |
| | U31 | 0,855 | 0,036 | 0,731 | 23,423 | 0,000 |
| | U32 | 0,757 | 0,057 | 0,573 | 13,369 | 0,000 |
| | U33 | 0,744 | 0,071 | 0,554 | 10,449 | 0,000 |
| | U34 | 0,660 | 0,064 | 0,436 | 10,376 | 0,000 |
| | U35 | 0,938 | 0,038 | 0,880 | 24,539 | 0,000 |
| | U36 | 0,895 | 0,031 | 0,801 | 28,795 | 0,000 |
| | U37 | 0,535 | 0,075 | 0,286 | 7,089 | 0,000 |
| | U38 | 0,620 | 0,073 | 0,384 | 8,462 | 0,000 |
| | U39 | 0,702 | 0,062 | 0,493 | 11,234 | 0,000 |
| Personal Safety | U40 | 0,742 | 0,057 | 0,551 | 12,975 | 0,000 |
| | U41 | 0,947 | 0,021 | 0,897 | 45,572 | 0,000 |
| | U42 | 0,949 | 0,019 | 0,901 | 50,089 | 0,000 |
| | U43 | 0,932 | 0,022 | 0,869 | 42,205 | 0,000 |
| | U44 | 0,944 | 0,022 | 0,891 | 43,451 | 0,000 |
| | U45 | 0,950 | 0,023 | 0,903 | 40,900 | 0,000 |
| | U46 | 0,937 | 0,025 | 0,878 | 38,022 | 0,000 |
| | U47 | 0,947 | 0,021 | 0,897 | 45,677 | 0,000 |

According to Table 4, the factor loads of items vary between 0.405 and 0.978. Item 11 has the lowest factor load, and Item 23 has the highest factor load. Considering item factor loads and $R^2$ values, variance explanation rates of items, which are observed variables, on factors that are latent variable structures are between %16,4 and %95,6. According to the examination of observed and latent variables, the items that make up the structure are sufficient. The T values of the items vary between 2.65 and 60.043. Considering that the critical T value is 1.96 at the 95% confidence level (sd = ∞), the T values of all items are significant. The fact that all item T values are significant at the 95% level indicates that the items can be significantly predicted by latent variables. When all these statistical parameters are evaluated theoretically in the context of the relationships between the item and

latent variables, it can be argued that the structure is statistically appropriate. The path diagram of the model obtained as a result of DFA is shown in Figure 1.

Figure 1. Path diagram of the four-factor structure




The fit indices calculated for the four-factor model as a result of confirmatory factor analysis are as follows: Chi-Square /sd=1,545; RMSEA=0,052 (0,045 – 0,057); CFI = 0,921 ve TLI = 0,917. These results indicate that the four-dimensional structure is acceptable and fits well.

***(e)*** *Findings Regarding the Reliability Analysis Process:* The KR-20 coefficient for this test, which was scored as 1-0, was .898; Cronbach Alpha coefficients for sub-dimensions were 0.794 for "accidents" 0.875 for "first aid" 0.794 for "emergency numbers" and 0.921 for "personal safety". These values indicate that the sub-dimensions in the test have sufficient reliability ($\alpha$>0.70). Accordingly, it can be interpreted that the measurement tool is reliable for the sample.

***(2) Findings Obtained During the Implementation Process of SSIP***

Table 4. U-test result of SSIP's experimental and control groups' pretest data

| Grup | N | Mean Rank | Sum of Ranks | U | P |
|---|---|---|---|---|---|
| Experimental | 16 | 15,84 | 253,50 | 117,5 | ,691 |
| Control | 16 | 17,16 | 274,50 | | |

According to Table 4, there was no significant difference between the safety skill levels of the students in the experimental and control groups before the instruction (U=117.5, p>0.05). Accordingly, it can be said that the experimental and control groups are equivalent.

Table 5. U-test result of SSIP's experimental and control groups posttest data

| Grup | N | Mean Rank | Sum of Ranks | U | P |
|---|---|---|---|---|---|
| Experimental | 16 | 24,31 | 389 | 3 | ,000 |
| Control | 16 | 8,69 | 139 | | |

According to Table 5, there is a significant difference between the level of safety skills of students with mild ID who participated and those who did not participate in SSIP (U=3, p<0.01). According to their mean rank, students with mild ID who attended SSIP had higher levels of security skills than those who did not participate in the instruction. This finding indicates that SSIP is effective in increasing the level of safety skills of students with mild ID. The effect size for the z value is found to be r=-0.83 for z=-4.725. The fact that the effect level is above .5 indicates that the implementation has a large effect.

Table 6. The signed ranks test result of SSIP scores

| Posttest-Pretest | N | Mean Rank | Rank Sum | z | P |
|---|---|---|---|---|---|
| Negative Rank | 0 | ,00 | ,00 | 3,52* | ,000 |
| Pozitive Rank | 16 | 8,50 | 136 | | |
| Equal | 0 | | | | |

According to Table 6, Wilcoxon signed-rank test results indicate that there is a significant difference between the pre-test and post-test scores of the students who participated in the instruction (z=3.52, p<.05). Considering the mean rank and sums of the difference scores, the difference is in favor of the posttest score. Accordingly, SSIP has a significant effect on improving students' safety skills.

***(3) Findings Obtained in the Process of Observing the Levels of Implementation of Safety Skills of Individuals with Mild Intellectual Disabilities***

The difference between the experimental group post-test scores ($\bar{x}_{experiment\text{-}posttest}$=41.18) and the averages of the observation data ($\bar{x}_{experiment\text{-}observation}$=34.81) [($\bar{x}_{experiment\text{-}posttest}$= 41,18)-($\bar{x}_{experiment\text{-}observation}$= 34,81)= 6.37] according to the highest score that can be obtained from the measurement tool (45) is 14.15%. Hereunder, the level of preservation of the safety skills acquired by the students during the observation process was found to be 14.15% lower than the highest possible score. In other words, according to the observation data collected in the week following the instruction, the safety skills acquired by the students were preserved at a level of 85.85%.

***(4) Findings Obtained in the Interview Process Regarding SSIP***

In the focus group interviews, the first question to the students was, *"Which of the safety skills have you learned as a result of this study?"* 15 students stated that they had learned the traffic lights; nearly half of them (f=7) stated that they had learned to wear a helmet while on a bicycle; 3 of them stated that they had learned how to make way for others, and two students stated that they had learned the direction of the road and riding on the bicycle path. Regarding this, a student said, *"We have learned to ride a bicycle on the bicycle path. I learned about traffic lights. We get ready in yellow. We go to the green. We stop at red."* (12th student).

9 students stated that they had learned to hold the knife properly; 8 students stated that they had learned to walk carefully on the wet floor; 7 students stated that they had learned to close the open detergent bottle; 6 students stated that they had learned to carefully collect the broken items; and 5 students stated that they had learned to touch the hot oven with a glove. Regarding this, a student said, *"We will put the knife in its place. We will close the lid on the detergent. We will walk slowly"* (10th student).

Almost half of the students (f=7) stated that they had learned to say no to the risks coming from the social environment and to stay away from them, while most (f=9) stated that they had learned to tell the risks coming from the social environment to an elder they trust. Half of the students (f=8) stated that they had learned to report the risks coming from the virtual environment to a trusted adult and to prevent risky messages. Regarding this, a student said, *"We're just looking through the peephole. About that, well, we have to shout. We have to stay away from it. We have to go,"* the 12th student said.

Twelve students stated that they had learned how to call 112 emergency numbers, and six of them stated that they had learned how to ask for help over the phone. Regarding this, a student said, *"..getting help; 112"* (1st student).

Secondly, the question *"What do you think learning about safety skills has contributed to you?"* has been asked of the students. Nearly half of the students (f=6) stated that the SSIP contributed to their learning to protect themselves. Five students stated that it helped them have fun. A student stated that it helped to feel confident in traffic, and a student stated that the study had served as a model for them. Regarding this, a student said, *"We have learned to protect ourselves."* (6th student).

Thirdly, the question *"How important are the safety skills taught in this study to you?" has been asked of the students*. The majority of the students (f=10) stated that the safety skills taught were important to them.

In individual interviews, firstly, the question *"Which safety skills did your child learn as a result of this study?"* has been asked to the parents. The majority of the parents (f=14) stated that their children had learned about the traffic lights. Two parents stated that they had learned many things about traffic rules and how to walk properly on the sidewalk. A parent said that his child had learned to walk across the street, and a parent stated that his child had learned to wear a helmet while riding a bicycle. Two parents stated that their child had learned home accident prevention skills. A parent stated that her child learned self-help first aid skills. The majority of the parents stated that their children had learned to protect themselves against the risks of the social environment (f=14) and the virtual environment (f=13). The majority of the parents (f=10) stated that their children had learned to call the emergency number, and three of them stated that their children could consider heading for the fire escape in case of an emergency. Regarding this, a mother said, *"They have learned about lights. They have learned how to walk across the street. So they have learned pretty much what is necessary."* (5th parent) said. Regarding personal safety skills, a parent said, *"He learned it too. We also warn him."* (1st parent).

Secondly, the question *"How do you think learning safety skills has contributed to your child?" has been asked of the parents. While 8 parents stated that teaching safety skills to their children contributed to their development in terms of development, 3 parents stated that it contributed to their children's self-confidence, one parent stated that there had been a decrease in problem behaviors, and one parent stated that there had been an improvement in social skills. Regarding this, a mother said, "Of course, it helps. They have a lot of benefits for society. Actually, Berna was more fearful before. She's more daring now. She couldn't even stay at home in case a stranger came home. She was even afraid of it. So after training, it's better this year. She can stay more peaceful."* (4th parent).

Thirdly, the question *"How important are the safety skills taught in this study to you?"* has been asked to the parents. All of the parents (f=10) stated that the safety skills taught were very important to them. Regarding this, one mother said, *"It is very important to me. Very important. "This kind of kid usually can't defend themselves much because they can't express themselves."* (3rd parent) and a father: *"They are all important to me. Because everything you teach matters. By God, I think it is a very useful thing, something useful."* (8th parent) said.

***(5) Combination of Data***

As a result of the validity and reliability analysis, the SST, which consists of 21 scenarios and 45 items, has a 4-factor structure and is a valid and reliable tool in assessing the knowledge levels of individuals with mild ID aged 6–19 years in the dimensions of accidents, first aid, personal safety, and safety skills related to emergency numbers.

The SSIP, which covers the safety skill areas evaluated by SST, is broadly effective in teaching safety skills related to accidents, first aid, personal safety, and emergency numbers to individuals with mild ID and aged 7–16 (14 males and 18 females).

Observation results indicate that the acquisitions obtained with SSIP were maintained at 85.85% after one week. Also, the acquisitions belonging to each factor of the measurement tool were largely preserved.

Accordingly, the factor analysis, validity, and reliability results of the measurement tool, the effective results, and observation data obtained from the application of the SSIP, which includes the scenarios in the measurement tool, support each other, and the construct validity of the four-factor structure has been ensured.

According to the results obtained from the interviews, the participants concluded that the acquisition of safety skills related to accidents, first aid, personal safety, and emergency numbers had been achieved to a large extent, and the teaching of these skills had contributed to the development of the students and had been important for them.
In this study, students' safety skills related to accidents, first aid, personal safety, and emergency numbers were evaluated using both quantitative and qualitative data. Qualitative data were collected by observation and interview, while quantitative data were collected with SST. First of all, the level of safety skills of the students was evaluated quantitatively with the measurement tool. Then, with the observational assessment made after the instruction, the students' display of their safety skills in the simulation setting was evaluated. Finally, student and parent views on safety skills were evaluated qualitatively. The results obtained with these three different data types support each other and contribute to the construct validity of the measurement tool. Thus, the effectiveness of SSIP has been extensively examined.

## Discussion

This research aims to develop a valid and reliable measurement tool for assessing the safety skills of individuals with mild ID regarding accidents, first aid, personal safety, and emergency numbers; to examine the effectiveness of SSIP in teaching safety skills to these individuals; and to determine the views of students and parents on the instruction of safety skills. In line with this purpose, in the first stage of the research, it was found that the SST has a four-factor structure and is a valid and reliable tool for evaluating the safety skills of individuals with mild ID regarding accidents, first aid, personal safety, and emergency numbers. Personal safety skills (Tutty, 1995; Wurtele et al., 1986; Wurtele et al., 1998) and home accident prevention skills (Letts et al., 1998; McNulty & Fisher, 2001) were addressed in the literature in the development of measurement tools that assess safety skills.

The Children's Knowledge of Abuse Questionnaire (CKAQ), developed by Tutty (1995), consists of both true-false and Likert-type items and has a two-factor structure that evaluates children's beliefs, knowledge, and skills about abuse. Only reliability analyses were applied to the Personal Safety Questionnaire (PSQ) (Wurtele et al., 1986) and the What If Situations Test (WIST) (Wurtele et al., 1998), which measure personal safety skills.

The psychometric properties of SAFER, which evaluates home accident prevention skills observationally, were determined by inter-rater reliability, test-retest reliability, and construct validity (Letts et al., 1998). Predictive validity analysis was performed by comparing the Assessment of Motor and Process Skills (AMPS) with SAFER (McNulty & Fisher, 2001).

The Children's Knowledge of Abuse Questionnaire (CKAQ) (Tutty, 1995), Personal Safety Questionnaire (PSQ), and What If Situations Test (WIST) (Wurtele et al., 1998) have been applied to typically developing children and only address personal safety skills. SAFER and the Assessment of Motor and Process Skills (AMPS), which evaluate home accident prevention skills, have been prepared in a checklist format and observationally evaluate the home accident prevention skills of individuals with psychiatric disorders accompanied by cognitive disabilities. The validity and reliability study of the SST, which has been developed within the scope of this research, was conducted on individuals with mild ID and includes personal safety skills as well as safety skills related to accident prevention, first aid, and emergency numbers.

SST is a scenario-based achievement test designed to evaluate the knowledge level of individuals with mild IDs between the ages of 6 and 19 regarding accidents, first aid, personal safety, and emergency numbers. In this respect, SST is similar to CKAQ (Tutty, 1995), WIST, and PSQ (Wurtele et al., 1986; Wurtele et al., 1998). In this study, content validity, construct validity, and reliability studies were also carried out. The findings revealed that the measurement tool is valid and reliable in determining the safety skills of individuals with mild ID at the level of knowledge regarding accidents, first aid, personal safety, and emergency numbers.

In the second stage of the research, the effectiveness of SSIP was examined, and the instruction has been effective in teaching safety skills related to accidents, first aid, personal safety, and emergency numbers to individuals with mild IDs. In the literature, the scope of instructions for teaching safety skills includes protection skills for the risks from the physical environment and the social environment (Gast et al., 1992). Within the

scope of protection skills from the risks of the physical environment, pedestrian and traffic safety (Batu et al., 2004; Branham et al., 1999; Coles et al., 2007; Matson, 1980a; Page et al., 1976), first aid and emergency numbers (Christensen et al., 1996; Marchand-Martella & Martella, 1990; Matson, 1980b; O'Reilly & Cuvo, 1989; Spooner et al., 1989; Self, Scudder, Weheba & Crumrine, 2007), fire safety (Matson, 1980a; Mechling, 2008), and safety skills for the prevention of home accidents (Self et al., 2007) were taught. On the other hand, the skills to avoid risks from the social environment include the skills to avoid the traps of strangers (Collins et al., 1999; Gast et al., 1993; Mechling, 2008; Watson, Bain, & Houghton, 1992). On the other hand, the intense digitalization trend poses a risk for all children and young people, as well as those with special needs, in terms of the traps of strangers in the virtual environment. And it takes place in the literature, albeit a little (Didden et al., 2009). (Didden et al., 2009). The SSIP applied in this research has been prepared as a holistic program to cover the skills of protection from the risks coming from the physical, social, and virtual environments, which are handled separately in the literature.

While the skills for protection against risks from the physical environment are handled in the sub-dimensions of Accidents, First Aid, and Emergency Numbers; the risks from the social and virtual environments are handled together in the Personal Safety sub-dimension. In this respect, it is a more comprehensive teaching process than other applications in which safety skills are taught.

In research in which safety skills are taught, BST (Bevill & Gast, 1998; Mechling, 2008; Wurtele et al., 1998), game-based teaching (Cavett, 2017; Coles et al., 2007; Fox et al., 1984), small group instruction (Fox et al., 1984; Gast et al., 1992), social stories (Kutlu & Kurt, 2017; Kutlu, 2016; Özdemir, 2007; Süzer, 2015), applied behavior analysis (O'Reilly & Cuvo, 1989), errorless teaching methods (Batu et al., 2004; Collins et al., 1992; Gast et al., 1992; Gast et al., 1992; Gast et al., 1992; Gast et al., 1993), direct teaching method (Christensen et al., 1996), and video modeling (Branham et al., 1999; Ergenekon, 2012) are used separately or together. BST is generally applied in six stages in the literature (Bevill & Gast, 1998; Mechling, 2008): (a) specifying target behaviors; (b) preparing instructions; (c) explaining the target skill to the participant; (d) rehearsing and modeling; (e) role-playing and giving feedback; (f) independent practice. The instruction program used in this study consists of three stages: (a) explaining the target skill to the participant; (b) rehearsal, role-playing, and giving feedback; and (c) independent practice. In addition, in this study, a board game was included as an enhancement activity along with BST. SSIP is effective in teaching safety skills related to accidents, first aid, personal safety, and emergency numbers to individuals with mild IDs.

According to the observation data collected one week after the application of SSIP in the third stage of the study, the level of preservation of the safety skills acquired by the students was found to be 85.85%. The acquisition for each factor is largely preserved. Accordingly, the factor analysis, validity, and reliability results of the measurement tool, which was determined to have a four-factor structure, the effectiveness results obtained from the application of the SSIP covering the scenarios in the SST, and the observation data supported each other, and the construct validity of the four-factor structure was ensured.

Studies in the literature on teaching safety skills are generally single-subject studies, and follow-up data have been collected to determine the level of preservation of the acquired knowledge over time. In the follow-up sessions of research on teaching safety skills, the acquisition was fully or partially preserved (O'Reilly, Green, & Braunling-McMorrow, 1990; Öncü, 2019; Christensen, Lignugaris-Kraft, & Fiechtl, 1996; Gast et al., 1992; Marchand-Martella & Martella, 1990; O'Reilly and Cuvo, 1989; Gast et al., 1993; Kutlu, 2016; Watson et al., 1992; Özen, 2008). In this research, the knowledge that students learned in the context of theory and practice was practiced once again during the observation, and it was checked whether the acquisition was preserved or not. According to the observation data, the acquisition was partially preserved.

According to Cronbach and Meehl (1955), an acceptable psychological construct should be associated with behavior. Observation of the individual's performance process can be decisive in explaining the validity of a test when used in conjunction with factor analysis, which is used to examine whether a measurement tool measures the assumed "general learning ability". In this study, first, the scenarios related to the safety skills in the SST were explained, and the participant's level of knowledge was evaluated before and after the instruction. After the instruction, the level of application of the knowledge in the simulation setting was evaluated by observation in line with the same scenarios. Thus, the construct validity of the measurement tool was handled in a multidimensional way and was supported by observational process data in addition to factor analysis.

According to the results obtained from the student and parent interviews, the participants concluded that the acquisition of safety skills related to accidents, first aid, personal safety, and emergency numbers had been achieved to a large extent; these skills had contributed to the students' development and had been important os how . Studies reveal that parents are satisfied with teaching safety skills to their children (Gast et al., 1992; Özen, 2008). The students and parents participating in this research are also satisfied with the instruction program and conclude that the skills have been acquired to a large extent.

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## Recommendations

The use of the SST to assess the safety skills of students with intellectual disabilities in schools is recommended. It is recommended that SSIP be integrated into the education programs of individuals with intellectual disabilities and implemented in schools. It is recommended to include the instruction of safety skills in inclusive settings. The psychometric properties of the SST can be studied by comparing it with typically developing students. Research on teaching security skills can be carried out with different teaching methods.

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## Author (s) Contribution Rate

The authors contributed equally to the design and implementation of the research, to the analysis of the results, and to the writing of the manuscript.

## Conflicts of Interest

The authors have no conflicts of interest to declare. All co-authors have seen and agree with the contents of the manuscript and there is no financial interest to report. We certify that the submission is original work and is not under review at any other publication.

## Ethical Approval

Ethical permission (13/12/2018-2018/265) was obtained from the Bolu Abant Izzet Baysal University Human Research Ethics Committee in Social Sciences for this research.

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