

The Development of the Text Evaluation Scale for Child Rights: A Study of Validity and Reliability

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Abstract

This study was conducted with the aim of developing *The Text Evaluation Scale for Child Rights*. There are four different sample chosen for the face validity, content validity and construct validity (for pilot scheme and main study) of the study. For face validity, a sample group of 3 experts chosen with the method of purposeful sampling including the researcher was formed. For content validity, snowball method was determined and studied with 12 experts. For the study of construct validity, random sampling method was performed for the sample selection in pilot study involving 120 people and in main study involving 510 people.

The theoretical framework of the scale was determined by means of the attempts, conventions, studies regarding the subject basing upon the United Nations Organization Child Rights Convention and additional protocols to this convention. One could get minimum 40 and maximum 200 points from the five-point Likert scale which consists of 28 positive and 12 negative (total 40) items. The scale has two sub-dimensions which are *content* and *author*. The fact that Cronbach Alpha reliability coefficient is high regarding the sub-dimensions of the scale (*author* sub-dimension= 0,822 *content* sub-dimension= 0,834) shows that the items in the sub-dimensions are consistent with one another. Cronbach Alpha value for the whole of the scale was determined as 0,90 which means that the scale is highly reliable. Besides, in the scale, there are items of which factor loading value is higher than 0,45. When validity and reliability results are examined, it can be seen that the scale could be utilized to evaluate the text in terms of being suitable for the child rights.

Keywords: scale development, reliability, validity, child rights, text evaluation scale

1. Introduction

Child is defined as a human in the growing period between the babyhood and puberty (<http://www.tdk.gov.tr>). As for the United Nations Organization Child Rights Convention, every individual is accepted as child until s/he is 18 years old (MEB, 1991: 12). Differently from the baby notion, child notion is a period involving social and cultural elements and it is regarded as a period in which it is possible to start to live without being dependent to the parents (Akyüz, 2010: 1). Defined as “small man” or “little man” is a social constitute who is not cared and mostly in the growing process (Torun, 2011: 8). The child who sometimes is exposed to sex discrimination, regarded important according to his/her gender, given or not given the right of succession, accepted as a source of either shame or honor is the most exploited constitute also in the war times (Kara, Biçer& Gökalp, 2004: 140-141).

A child is considered as the one who has the right to benefit from the human rights, even though it is not found enough, also as an individual who has special and different needs from the adults and the constituent who builds the future of the society. Hence, nations in the modern world take international steps to entitle the child special rights and to protect these rights, and they sign conventions.

It is important for the structures comprising text or texts such as books or training materials, which play an important role in child education, to have sensitivity for child rights and to be adequately prepared for this. The fact that there should be a scale which makes it possible to evaluate the texts in terms of the child rights should be considered as equally important. As these evaluations increase, published books and texts designed or chosen for training materials would be more content-rich in terms of being suitable for child rights, even for teaching child rights.

2. Literature Review

Knowledge is synonymous to awareness, learning, education and cognizance (Adeyemi, Roseline, Ocheje, 2015: 71). Having rights is a concept which could exist culturally in the society not spontaneously in the nature (Kara, Biçer& Gökalp, 2004: 140-141). Therefore, considering the child as a right owner is related to the society and the structure of the society. In the medieval ages, children were individuals wearing like the adults and judged like adults when they committed crimes. Having started to have a different identity after renaissance, children were started to be seen as symbol of innocence. They started to have their own stories and plays. The opportunity of the families to reach libraries and books became a source of privilege for the children, too (Yıldırım& Şimşek, 2018). While it was the case for the children in belonging to middle class and upper class, children in the low-income groups took place as individuals who were the stakeholders of the burden of their families and were wearing the minimized clothes of the adults (Postman, 1995, cited by Torun, 2011: 8).

Reading is crucial in the development and improvement of people's mind (Oriogu, 2015: 61). So the child starts to have an exact identity in the twentieth century. The idea that children have different emotions and thoughts from the adults raised. The facts that pedagogues, philosophers, legists and educators started to examine the children and that the ideas about the child rights and growth made this period important (Yurtsever, 2009: 14-15). The perception dominant in the 20th century is that children have their own biological category and they are different from the adults; as being adult is an acquisition children should be prepared for this; this responsibility belongs to the adults. (Tan, 1993 cited by Yurtsever, 2009: 22).

In 1919, Custody of Infants Act was established to protect the children in England after The First World War. Jebb, working for this act prepared a draft for child rights in 1922. In this draft, responsibilities against children such as protection of them against the exploitation, providing them with fully physical, cognitive and moral development regardless of their nation, race and religion was mentioned. Later on, this draft was accepted as Geneva Declaration of the Rights of the Child by United Nations in 1924. Geneva Declaration of the Rights of the Child was the first international document for the protection of the child rights (Kurt, 2013: 16; Yurtsever, 2009: 32).

Second World War starting in 1939 caused Child Rights Convention not to go beyond being just on the paper (Müftü, 2001: 7). The fact that child abuse raised worldwide following the Second World War forced countries to take special precautions for the benefit of the children. In this context, firstly in 1959, Child Rights Declaration was revealed by the United Nations General Assembly, and then in 1989, a more detailed work was put forward with Child Rights Convention. Child Rights Convention which was opened for signature in January 20, 1990, was signed by 61 countries at the same time. Turkey signed the convention, in the "World Summit for Children" gathered in United Nations General Center by making reservation for Articles 17, 29, and 30. The convention which was found suitable to confirm with the law no 4058 came into force in January 27, 1995 after it was published in official gazette.

When United Nations Child Rights Convention is examined in terms of its content, it could be said that it was structured on the themes of "Education, Leisure Time and Cultural Activities", "Family Environment and Care", "Basic Health and Welfare" and "Civil rights and Freedom." (Yurtsever, 2009: 67). Reading is one of the most important skills (Migdadi, Baniabdelrahman, 2016: 39). According to the text, every child has the right to be recorded with the name given by their parents, to stay with their parents and to be cared by them. If they are insufficient, the state is responsible to provide the essential conditions for the children, in which a child can develop physically and cognitively. The care, health, welfare and the identity rights of the children, who are disabled, abandoned, separated from their families permanently or temporarily, are also under the assurance of the state. A child has the freedom of thought and faith. Children could tell their ideas liberally, own documents and share them, join art organizations and meet up peacefully. Contracting countries promised to provide this. The convention which covers many rights from living, the most basic right of the children, to the games, regards the child as an individual who has his/her own rights, freedom and boundaries and protects them.

The purpose of this study is to develop a reliable and valid scale which would help to evaluate the texts, prepared for children, with respect to the child rights. In accordance with this purpose, the research question was performed as follows:

"Is it possible to develop a reliable and valid scale which could be used to evaluate the texts, prepared for children, with respect to the child rights?"

3. Methodology

The study was conducted according to the exploratory design among mixed methods. Qualitative data were gathered via document analysis and analyzed with the method of content analysis. As for the quantitative data, they were gathered through scanning method and analyzed with a statistical package.

The study was conducted within the mixed method framework. In this method, in which qualitative and quantitative research methods are used together, different designs could be determined according to the order and importance of quantitative and qualitative data.

3.1 Design

The study was planned and conducted according to exploratory design on the basis of mixed method. Scientific studies are conducted according to quantitative and qualitative method; however, some studies make it necessary to combine these two methods. As both of these methods are utilized in these studies, they are called *mixed method studies* (Creswell and Plano Clark, 2014: 3). Mixed method studies consist of different designs according to the aim and type of the research, and to the conditions such as the way or sequence that quantitative and qualitative data are utilized. Due to the fact that this study setting out from the quantitative data aims to develop a qualitative research tool which could be used in the future studies, *exploratory sequential design* was used (Creswell and Plano Clark, 2014: 96).

Table 1. The Scale Development Model Used in the Study

Content Validity	Question pool	Setting the question pool	Lawhse CVR (Content Validity Ratio)
		Providing face validity	
		Providing content validity	
Construct Validity	Pilot Study	Pilot study to the identified sample	Correlation-based analysis Analysis based on the internal consistency scale
		The application of descriptive statistics	
		The analysis of the items	
	Main Sample application	Application of the scales to the main sample	Kaiser-Meyer-Olkin (KMO) test and Bartlett test Explained variance rates Varimax rotation analysis
		The application of descriptive statistics	
		Exploratory Factor Analysis (EFA)	
Reliability	Main Sample application	Item analysis Cronbach Alpha, Spearman-Brown and Guttman internal consistency coefficients	

Question pool is somehow the draft of the assessment instrument to be developed. The items should be prepared in a conceptual framework regarding all sub-dimensions of the structure which is intended to be assessed (Comrey, 1988: 755; cited by Şahin, 2009). Therefore, international attempts for the child rights, conventions, especially United Nations Child Rights Convention, additional protocols and studies in the literature related to the subject were examined. When the case is to generate questions, two ways, inductive and deductive, could be followed (Hinkin, 1995: 969). Because especially United Nations Child Rights Convention was approached in the study, deductive method was preferred. As there would be 35-40 items in the aimed final scale form, it is necessary for question pool to consist of at least three times higher number of items (Şencan, 2005: s. 750). For this reason, a question pool involving 142 items consisting of positive and negative question roots was formed.

After forming the question pool, face validity was studied by the researcher and two people who are experts in the field of Turkish language education. Face validity is about how the scale seems to assess when it is examined by the attendant of the scale (DeVellis, 2003: 57). In face validity, the opinions of the participants about the subjects such as the clarity of the items, their length and being easy to read and answer are evaluated (Karakoç& Dönmez, 2014).

For the draft scale, which has face validity, content validity was studied with 12 people who are experts in the fields of Turkish Language education, child development, assessment and evaluation. Calculating the Content Validity

Ratio (CVR) developed by Lawshe, it was determined whether scale items are covering the subjects about child rights.

The draft, which has content validity, was tested over two different sample groups. Firstly, pilot study was performed to the sample group (n=120) which was chosen via the purposive sampling method and excluded from the main sample group. The scale was put into final form by performing analysis of the obtained data via a statistical package basing upon correlation and internal validity standards.

Following the pilot study, the scale was tested on the main sample group (n=510) which had been determined with the random sampling method. Exploratory Factor Analysis (EFA) was performed; construct validity was provided with Kaiser-Meyer-Olkin (KMO) test and Bartlett test, explained variance rates and Varimax rotation analysis. For reliability, item analysis was performed and Cronbach Alpha, Spearman-Brown and Guttman internal consistency coefficients were examined. Finally, it was decided to be a valid and reliable assessment tool.

3.2 Population and Sample

Research population consists of teachers working in National Education Directorate of Erzurum, last grade undergraduates from Ataturk University and academicians working at the same university.

The present study, which is a study of scale development, has four different sample groups. The first group is the expert group who help to provide face validity. It consists of the researcher and two people who are experts in the field of Turkish language education.

The second group was the expert group who helps to provide content validity. Expert group was determined with snowball sampling technique and it consisted of 12 people who are experts in the fields of Turkish Language education, child development, assessment and evaluation.

Third sample group consisted of 120 participants who were determined by purposive sampling who are not included in the main study sample group. Demographic features of the sample are given in Table 2.

Table 2. Demographic Features of the Sample Group That the Pilot Study Was Applied

		Occupational Group		
		Undergraduate	Teacher	Academician
Gender	Women	24	14	12
	Men	30	20	20
	Total	54	34	32

The fourth group was the main sample group on which the assessment instrument was tested. Demographic features of this sample group consisting of 510 participants determined via random sampling method are given in Table 3.

Table 3. Demographic Features of the Sample Group That the Main Study Was Applied

		Occupational Group		
		Undergraduate	Teacher	Academician
Gender	Women	120	80	30
	Men	142	100	38
	Total	262	180	68

4. Results

The findings obtained from the study are examined under the four titles; face validity, content validity, construct validity and reliability

4.1 Face Validity

Face validity includes the stage of extraction or restoration of the parts of the scales which are repeating, irrelevant or incoherent after the questions in the question pool are evaluated with respect to such features as language, meaning, punctuation etc. After the researcher and two people who are experts in the field of Turkish language education studied face validity, from the question pool consisting of 142 items, it was decided to extract 25 of 50 recurrent items and 20 items that included irrelevant and specific expressions. Out of the 21 items, which are thought to have intelligibility problems, 15 items were extracted from the scale and 6 were refined. The items having punctuation and spelling problems were refined and the first draft consisting of 82 items was made.

4.2 Content Validity

Content validity is about the validity of the instrument and the correlation between the feature intended to assess and scale items. To provide content validity, Lawshe's Content Validity Ratio was decided (Lawshe, 1975). According to this, content validity rates are obtained by getting the opinions of the experts about any of the items. Content Validity Rates (CVR) is calculated by subtracting 1 from the rate of the number of the experts, who indicates their "necessary" recommendations for an item, to the total number of the experts. The minimum values of CVRs (content validity criteria) were converted to a table by Veneziano and Hooper (1997) at the significance level of $\alpha=0,05$ so that it could be calculated easily. Accordingly, minimum values about the number of the experts also give the statistical significance of the item (Yurdugül, 2005; Sevim, 2014; Erdemir, 2007).

Table 4. Minimum Values at the Significance Level of $\alpha=0,05$ for CVRs

Number of the Experts	Minimum Value	Number of the Experts	Minimum Value
5	,99	13	,54
6	,99	14	,51
7	,99	15	,49
8	,78	20	,42
9	,75	25	,37
10	,62	30	,33
11	,59	35	,31
12	,56	40+	,29

In the study of content validity conducted with 12 experts, when the Table 4 is examined it is necessary to refine the items under the value of 56 if possible; if it not possible it is necessary to extract them from the scale.

The data obtained from the content validity study conducted with 12 experts are given in Table 5.

Table 5. Content Validity Rates of the Text Evaluation Scale for Child Rights

Item Number	Essential	Should be refined	Should be extracted	CVR
1	10		2	0,67
2	5	2	5	-0,17
3	8	1	3	0,33
4	9		3	0,50
5	10	1	1	0,67
6	11		1	0,83
7	12		0	1,00
8	11		1	0,83
9	11		1	0,83

10	11		1	0,83
11	11	1	0	0,83
12	12		0	1,00
13	10		2	0,67
14	10		2	0,67
15	9		3	0,50
16	8		4	0,33
17	9		3	0,50
18	4	1	7	-0,33
19	5		7	-0,17
20	6		6	0,00
21	6		6	0,00
22	7	1	4	0,17
23	9		3	0,50
24	11		1	0,83
25	12		0	1,00
26	10	1	1	0,67
27	10		2	0,67
28	12		0	1,00
29	11		1	0,83
30	6		6	0,00
31	7		5	0,17
32	10		2	0,67
33	12		0	1,00
34	8		4	0,33
35	7		5	0,17
36	5		7	-0,17
37	12		0	1,00
38	11	1	0	0,83
39	11		1	0,83
40	10	2	0	0,67
41	10		2	0,67
42	12		0	1,00
43	12		0	1,00
44	12		0	1,00
45	11		1	0,83
46	11		1	0,83
47	10		2	0,67
48	11		1	0,83
49	11		1	0,83
50	10		2	0,67

51	12		0	1,00
52	12		0	1,00
53	12		0	1,00
54	11		1	0,83
55	10		2	0,67
56	10		2	0,67
57	9		3	0,50
58	8	1	3	0,33
59	9		3	0,50
60	8		4	0,33
61	11		1	0,83
62	12		0	1,00
63	10	2	0	0,67
64	12		0	1,00
65	11		1	0,83
66	11		1	0,83
67	12		0	1,00
68	12		0	1,00
69	10		2	0,67
70	11		1	0,83
71	12		0	1,00
72	12		0	1,00
73	9		3	0,50
74	8	2	2	0,33
75	11		1	0,83
76	10		2	0,67
77	8		4	0,33
78	9		3	0,50
79	8		4	0,33
80	8		4	0,33
81	10	1	1	0,67
82	11		1	0,83
The number of the Experts				12
Content Validity Standard				0,56
Content Validity Index				0,67

When table 5 is examined and $CVR \geq ,56$ is based for CVR value, it can be seen that items with number 2, 3, 4, 15, 16, 17, 18, 19, 20, 21, 22, 23, 30, 31, 34, 35, 36, 57, 58, 59, 60, 73, 74, 77, 78, 79, 80 are under this value. As a result of the evaluation, it is decided to extract all of these items from the scale. Inasmuch as the average of the rest of the items is ,84 and close to exact 1 value, it could be claimed that average content validity is high.

4.3 Construct Validity

4.3.1 Pilot Study

In order to provide the construct validity of the second draft which has content validity, firstly pilot study was performed. Researchers indicate that pilot studies could be performed with sample groups of 30-50 people (Şeker and Gençdoğan, 2006: 13) and that these numbers could be increased so as to increase the reliability of the data (Özgüven, 2012). Therefore, a sample group consisting of 120 participants was studied. In Table 6, some of the descriptive statistics related to the range features of the points belonging to the Text Evaluation Scale for Child Rights are shown.

Table 6. Descriptive Statistics of the Text Evaluation Scale for Child Rights

Descriptive Statistics	
N	120
Mean	178,640
Std. Error of Median	3,82456
Median	160,00
Mode	149
Std. Deviation	18,65314
Variance	347,939
Skewness	,013
Kurtosis	,045
Range	191,00
Minimum	108,00
Maximum	257,00
Sum	21436,8

In table 6 where descriptive statistics of Text Evaluation Scale for Child Rights are given, there are 54 items and they are coded as *strongly disagree*, *disagree*, *neither agree nor disagree*, *agree*, *strongly agree*, and they are given points from 1 to 5 in the same sequence. On the other hand, negative items are graded reversely. The lowest possible score in the test is 54 and the highest is 270. The range is expected to be $(270-54=)$ 216 so that the scale could cover all of the skill items from the most positive point of the related skill to the most negative point of it; however, it can be seen that range is 191 in the pilot study. Now then, it is seen that the draft scale covers some parts of the expected range. The mean of the data, obtained in the pilot study as measures of central tendency, is 178,64; the median is 160 and the mode is 149 which are very close to each other. It is determined that range informing about how the data are distributed around the measures of central tendency is 191 while standard deviation is 18,65. Showing the distribution rates of points and values, these obtained measures of tendency has revealed that the participants of the pilot study are homogenous in terms of the assessed features.

Item analysis method was used to determine whether the items of the scale assess the conceptual structure consistently. Firstly, the total correlation coefficients of the Text Evaluation Scale for Child Rights were examined. In table 7, total correlation coefficients of the items in the scale are given.

In table 7, Pearson Product Moment Correlation coefficients calculated between the range of item points and the range of scale point are present. When table 7 is examined, the item which has the highest scale value (item-test correlation) is Item 28 while the item which has the lowest scale value (item-test correlation) is Item 5. In other words, according to the scale values basing upon the reactions of the participants, Item 28 is the best item which assesses the intended feature while Item 5 assesses the intended feature at the minimum level.

When the values in Table 7 are regarded, it is seen that coefficient values vary between the values of -0,125 and 0,794. It is understood that 2 items (Item 5 and Item 32) have revealed negative value coefficient. It was revealed that in addition to 2 items (Item 5 and Item 32) which have negative value coefficient, the coefficient values of 3 items (Item 8, Item 37 and Item 44) are less than 0.30.

Table 7. The Total Correlation Coefficients of the Text Evaluation Scale for Child Rights

Item	X	SS	r
Item 5	4,06	0,76	-,125
Item 32	2,96	0,18	-,110
Item 37	4,80	0,97	,201
Item 44	3,85	1,78	,246
Item 8	4,22	0,81	,254
Item 36	3,94	0,91	,325
Item 30	3,86	0,86	,328
Item 38	4,02	1,54	,328
Item 43	2,25	0,67	,328
Item 14	4,07	0,91	,330
Item 16	3,92	0,98	,330
Item 34	4,03	0,86	,330
Item 46	2,30	0,20	,348
Item 18	3,44	1,87	,350
Item 54	3,14	0,76	,354
Item 52	4,67	0,91	,355
Item 10	2,60	1,21	,356
Item 11	2,65	1,54	,356
Item 53	3,80	1,31	,356
Item 4	3,85	1,25	,359
Item 41	4,11	1,24	,359
Item 19	2,97	0,86	,361
Item 40	4,58	1,86	,366
Item 33	3,66	1,91	,378
Item 42	4,72	0,97	,378
Item 47	3,38	1,98	,378
Item 29	1,44	1,50	,380
Item 6	2,97	0,91	,382
Item 24	4,64	1,45	,382
Item 35	3,88	0,76	,382
Item 50	4,22	1,54	,382
Item 1	3,89	0,66	,385
Item 49	3,56	0,76	,385
Item 22	2,90	0,97	,392
Item 48	4,46	0,87	,399
Item 21	3,98	0,76	,420
Item 27	4,25	0,78	,420
Item 31	4,73	0,42	,420
Item 25	3,04	0,80	,421

Item 39	4,20	1,42	,423
Item 17	2,23	1,31	,424
Item 7	3,98	0,86	,449
Item 12	4,38	1,54	,455
Item 15	4,08	0,81	,463
Item 13	4,83	1,32	,472
Item 45	3,69	0,86	,472
Item 26	3,54	0,76	,480
Item 2	2,68	0,93	,485
Item 23	3,84	1,42	,505
Item 3	4,51	1,42	,556
Item 51	2,79	1,86	,558
Item 20	4,52	0,85	,582
Item 9	4,98	0,62	,615
Item 28	3,24	0,52	,794

Moreover, discrimination power of every item was analyzed. It was examined whether every item in the Text Evaluation Scale for Child Rights, in a statistically significant level, discriminate the group (high critical visual reading level) which is present in the top 27 percent of the sample on the basis of the total points and the group (low critical visual reading level) which is present in bottom 27% of the sample group. For this, the points of these two extreme groups were compared via t test technique.

Table 8. Related to the Significance of the Averages of Top and Bottom Groups, t Test Results of the Range of the Every Item in Text Evaluation Scale for Child Rights

Item	Group	N	X	S	d.f.	t	p
Item 1	Top	32	3,42	,869	77	2,982	,000
	Bottom	32	3,13	,354			
Item 2	Top	32	4,74	1,588	77	3,170	,001
	Bottom	32	3,36	1,011			
Item 3	Top	32	3,42	,951	77	5,502	,001
	Bottom	32	2,90	1,035			
Item 4	Top	32	3,42	1,128	77	6,236	,000
	Bottom	32	3,13	1,385			
Item 5	Top	32	4,74	,572	77	2,387	,102
	Bottom	32	3,36	,914			
Item 6	Top	32	3,42	1,456	77	4,507	,000
	Bottom	32	2,90	1,974			
Item 7	Top	32	4,12	,874	77	5,004	,000
	Bottom	32	3,87	1,978			
Item 8	Top	32	3,44	1,347	77	3,668	,163
	Bottom	32	3,77	1,348			
Item 9	Top	32	3,46	1,201	77	2,920	,005
	Bottom	32	4,28	,135			
Item 10	Top	32	4,50	1,486	77	5,357	,000
	Bottom	32	3,30	1,541			
Item 12	Top	32	3,42	,367	77	4,581	,000
	Bottom	32	2,31	,714			
Item 13	Top	32	3,47	,895	77	2,984	,000
	Bottom	32	3,42	1,784			

Item 14	Top	32	4,37	,702	77	4,433	,000
	Bottom	32	2,20	1,635			
Item 15	Top	32	3,72	1,380	77	5,392	,000
	Bottom	32	2,37	1,322			
Item 16	Top	32	4,85	,989	77	4,030	,000
	Bottom	32	3,10	,790			
Item 17	Top	32	4,32	1,352	77	3,248	,014
	Bottom	32	3,52	1,837			
Item 18	Top	32	2,42	1,847	77	2,025	,000
	Bottom	32	1,29	,645			
Item 19	Top	32	3,89	1,412	77	2,370	,000
	Bottom	32	3,19	1,209			
Item 20	Top	32	3,21	,605	77	2,804	,011
	Bottom	32	2,28	,507			
Item 21	Top	32	3,36	1,484	77	6,421	,001
	Bottom	32	2,65	,836			
Item 22	Top	32	3,18	1,449	77	2,502	,000
	Bottom	32	2,68	1,427			
Item 23	Top	32	3,51	,330	77	4,711	,000
	Bottom	32	3,00	,442			
Item 24	Top	32	3,63	1,255	77	4,920	,000
	Bottom	32	2,02	,461			
Item 25	Top	32	3,77	1,230	77	5,902	,000
	Bottom	32	2,38	,414			
Item 26	Top	32	4,05	1,521	77	5,000	,000
	Bottom	32	3,45	,273			
Item 27	Top	32	3,65	,895	77	6,203	,000
	Bottom	32	2,31	1,205			
Item 28	Top	32	3,88	,640	77	7,008	,000
	Bottom	32	2,42	1,260			
Item 29	Top	32	4,40	1,335	77	2,820	,000
	Bottom	32	3,99	,326			
Item 30	Top	32	3,01	1,840	77	3,014	,009
	Bottom	32	2,81	1,653			
Item 31	Top	32	3,24	1,401	77	2,019	,035
	Bottom	32	2,37	,987			
Item 32	Top	32	3,04	1,612	77	,562	,171
	Bottom	32	3,37	,956			
Item 33	Top	32	4,20	,814	77	2,656	,000
	Bottom	32	3,11	1,063			
Item 34	Top	32	3,31	1,058	77	2,210	,000
	Bottom	32	2,42	1,783			
Item 35	Top	32	3,47	,784	77	3,921	,000
	Bottom	32	2,55	1,302			
Item 36	Top	32	3,37	1,354	77	5,979	,001
	Bottom	32	2,94	,598			
Item 37	Top	32	3,98	,887	77	6,544	,120
	Bottom	32	3,43	,740			
Item 38	Top	32	3,42	1,963	77	4,225	,000
	Bottom	32	3,04	1,621			
Item 39	Top	32	3,42	1,874	77	3,944	,000
	Bottom	32	2,07	1,560			
Item 40	Top	32	3,44	1,204	77	2,550	,000
	Bottom	32	3,12	1,304			
Item 41	Top	32	3,77	1,950	77	6,954	,000

	Bottom	32	3,01	,227			
Item 42	Top	32	3,50	1,704	79	4,210	,000
	Bottom	32	3,20	,987			
Item 43	Top	32	4,58	1,126	79	3,054	,000
	Bottom	32	4,01	1,357			
Item 44	Top	32	3,22	,360	79	1,587	,163
	Bottom	32	3,29	,350			
Item 45	Top	32	3,63	1,354	79	3,874	,000
	Bottom	32	3,21	,417			
Item 46	Top	32	3,72	1,665	79	7,012	,001
	Bottom	32	2,87	1,060			
Item 47	Top	32	4,31	1,470	79	5,878	,000
	Bottom	32	3,73	,455			
Item 48	Top	32	4,64	1,235	79	7,655	,000
	Bottom	32	3,80	1,056			
Item 49	Top	32	3,71	,322	79	6,138	,000
	Bottom	32	3,20	1,221			
Item 50	Top	32	4,36	,553	79	5,818	,000
	Bottom	32	2,90	,931			
Item 51	Top	32	3,24	1,020	79	3,545	,000
	Bottom	32	3,17	,585			
Item 52	Top	32	4,24	,663	79	5,091	,000
	Bottom	32	3,71	1,206			
Item 53	Top	32	2,64	1,530	79	6,058	,000
	Bottom	32	2,71	,930			
Item 54	Top	32	4,24	1,201	79	5,542	,000
	Bottom	32	3,22	,780			

T test results are shown in Table 8. In Table 8, top or bottom groups are divided according to the level of the texts for being for the child rights, and the number of the participants (N), the mean (X), standard deviation(S), degree of freedom (d.f), T Statistics (t Value) and significance level(p) of each group are shown. So as to decide according to the test results in Table 8, p or t values are regarded. If p is lower than 0.05 ($p < 0.05$) at the significance level of 0.05, the difference between the groups are important. In other words, the given item, basing upon the total points, significantly discriminates the top group which is in the top 27% of the sample and the group which is in the bottom 27% of the sample.

When Table 8 is examined, it is understood that the significance level of the items numbered 5, 8, 32, 37 and 44 is higher than 0,05. The fact that item-total score correlation coefficients of these items are also lower than 0,30 shows that these items are needed to be extracted from the scale. It is decided to extract items numbered 5, 8, 32, 37 and 44 from this draft scale depending on the T test results. Thus, there are 49 items in the 3rd draft scale to be studied with the main sample.

The lowest item-total coefficient among these 49 items is 0,325; t test values of these items vary between 2,019 and 7,655. In second pilot study, internal consistency of the 2nd draft consisting of 54 items was determined as $\alpha = 0,826$ and after above-mentioned items were extracted, internal consistency of the 3rd draft scale consisting of 49 items was determined as $\alpha = 0,842$. Thus it was seen that a scale of 49 items which had relatively high reliability was achieved.

4.3.2 Main Sample Study

As a result of the pilot study and item analyses related the pilot study, 3rd draft scale consisting of 49 items was achieved. So as to perform factor analyses of this draft, a 600-people sample group was aimed and these drafts were delivered to the 500 participants by hand and to 110 participants via e-mail.

458 of the handed scales and 62 of the scales sent via e-mail returned and following to the evaluations 510 of them were accepted to be valid. Main sample study was performed between February and April, 2018.

In table 9, there are some descriptive statistics related to the range of the scores of the Text Evaluation Scale for Child Rights.

Table 9. Descriptive Values of the Text Evaluation Scale for Child Rights

Descriptive Statistics	
N	510
Mean	180,134
Std. Error of Median	4,59874
Median	158,00
Mode	154
Std. Deviation	20,98856
Variance	361,324
Skewness	,024
Kurtosis	,035
Range	190,00
Minimum	95,00
Maximum	230,00
Sum	91868,34

Since there are 49 items in the Text Evaluation Scale for Child Rights, descriptive statistics of which are in Table 9, possible lowest score is 49 while the highest possible score is 245. The range is expected to be $(245-49=)$ 196 so that the scale could cover all of the skill items from the most positive point of the related skill to the most negative point of it; however, it can be seen that range is 190 in the pilot study. Now then, it is seen that the draft scale covers some parts of the expected range. The mean of the data, obtained in the pilot study as measures of central tendency, is 180,134; the median is 158 and the mode is 154 which are very close to each other. It is determined that range informing about how the data are distributed around the measures of central tendency is 190 while standard deviation is 20,98. Showing the distribution rates of points and values, these obtained measures of tendency has revealed that the participants of the pilot study are homogenous in terms of the assessed features.

The Text Evaluation Scale for Child Rights was studied with the main sample group consisting of 510 people and factor analysis was performed.

So as to perform factor analysis, Kaiser-Meyer-Olkin (KMO) test and Bartlett test was performed. In Table 10, the results of Kaiser-Meyer-Olkin (KMO) test and Bartlett test related to the Text Evaluation Scale for Child Rights are shown.

Table 10. The results of kaiser-meyer-olkin (kmo) Test and Bartlett Test Related to the Text Evaluation Scale for Child Rights

Kaiser-Meyer-Olkin Measure of Sample Adequacy	,856
Bartlett's Test of Sphericity	Approximate chi square 16254,20
	Degree of freedom 1325
	Significance level ,004

When Table 10 is examined it can be understood that KMO value (0.856) is adequate for the factor analysis of the size of the sample group and that the significance of the Bartlett values results from the multivariate normal distribution.

According to these obtained results, the size of the sample group is adequate for factor analysis. After it was determined that the size of the sample group is adequate for factor analysis, the next stage was to determine the factor number of the scale. At this stage, in order to determine the factor number, explained variance rate was examined and it was decided that the scale consisted of two factors.

Table 11. The Variance Rates Explained by the Factors of the Text Evaluation Scale for Child Rights

Factors	Eigenvalue	Variance (%)	Cumulative Variance (%)
1st Factor	4,321	19,265	56,284
2nd Factor	4,012	17,078	61,349
3rd Factor	3,842	16,914	62,448

When Table 11 was examined, it was determined that total variance rate was %62,448 which is an admissible value. Following to the determination of the variance rates, Varimax rotation analyses were performed in order to determine the range of the items to the factors, and the results are shown in Table 12.

Table 12. Converted Constituents Matrix of the Text Evaluation Scale for Child Rights after the Factor Analysis

Item Number	1st Factor	2nd Factor	3rd Factor
1	,812		
42	,824		
31	,830		
20	,784		
22	,745		
30	,710		
12	,705		
35	,690	,682	
40	,684	,677	
2	,670	,675	
27		,672	
17		,668	
8		,664	
25		,660	
32		,658	
43		,655	
39		,652	
37		,549	
3		,645	
33		,641	
47		,635	
6		,627	
38		,624	
46		,620	
18		,615	
34		,613	
21		,608	
4		,605	
16		,580	
29		,578	
13		,550	
9		,551	
11		,547	

36	,521	
44	,518	
23	,514	
19	,510	
45	,502	
28	,490	
5	,485	
41	,479	
24	,467	
15	,464	
48	,431	
7		,689
10		,664
49	,590	,594
26		,430
14		,420

As it can be seen in Table 12, when the range of the items to the factors is examined through the Varimax rotation analysis technique, items except for numbered 14, 26 and 48 have higher values (> ,45) in the factors they belong to. It is seen that 4 items (numbered 2, 35, 40, 49) get loading from more than one factor and that factor loadings are lower than 0,10 in the factors they belong to. It was decided to extract these items from the scale. Thus, total 42 items left in 3 factors in the scale. Due to the fact that two items are not enough to explain one factor and that there were only 2 items in the 3rd factor, 2 remained items (numbered 14 and 26) was decided to be extracted from the scale.

It is necessary to determine whether data structure is adequate for factor analysis so as to repeat factor analysis for the Text Evaluation Scale for Child Rights. Thus, once again, Kaiser-Meyer-Olkin (KMO) test and Bartlett test techniques were utilized. (Balci, 2013; Kalayci, 2005).

Table 13. Kaiser-meyer-olkin (kmo) Test and Bartlett Test Results for the Text Evaluation Scale for Child Rights

Kaiser-Meyer-Olkin Measure of Sample Adequacy		,876
	Approximate chi square	16267,60
Bartlett's Test of Sphericity	Degree of freedom	1364
	Significance level	,004

KMO test determines whether chosen sample data is adequate for revealing factors. That test value varying between 0 and 1 is high (0.876) means that every variable could be well estimated by other variables in the scale. In a case that KMO value equals to 0 or close to 0 indicates that there is dispersion in the range of the correlation coefficients and that factor analysis cannot be performed on these values. Bartlett's Test of Sphericity value provides chi square statistic value. The fact that significance level is lower than ,05 in this test means that data structure is adequate for revealing factors. As it can be seen in Table 13, that KMO result is ,876 and Bartlett significance value is 0,004 offers that factor analysis could be continued.

When Table 14 is examined, according to the range of the items to the factors via the Varimax rotation analysis technique, it was determined that all items have higher values (> ,45) in the factors that they belong to.

According to the results of the analysis, sub-dimensions of the Text Evaluation Scale for Child Rights and the items which have loading from these sub-dimensions.

Table 14. Converted Constituents Matrix of the Text Evaluation Scale for Child Rights after the Factor Analysis

Item Number	1st Factor	2nd Factor
1	,823	
9	,709	
16	,791	
18	,750	
25	,718	
26	,837	
35	,831	
2		,675
3		,624
4		,501
5		,632
6		,669
7		,560
8		,552
10		,562
11		,469
12		,594
13		,677
14		,619
15		,518
17		,613
19		,520
20		,474
21		,667
22		,679
23		,501
24		,588
27		,667
28		,654
29		,619
30		,530
31		,555
32		,632
33		,661
34		,488
36		,664
37		,525
38		,515
39		,629
40		,647

Table 15. Sub-dimensions of the Text Evaluation Scale for Child Rights and the Items Which Have Loading from These Sub-Dimensions

Factors	The number of the items	Item Number
1. Author	7	1, 9, 16, 18, 25, 26, 35
2. Content	33	2, 3, 4, 5, 6, 7, 8, 10, 11, 12, 13, 14, 15, 17, 19, 20, 21, 22, 23, 24, 27, 28, 29, 30, 31, 32, 33, 34, 36, 37, 38, 39, 40

When Table 15 is examined it is seen that first factor consists of 7 items while second factor is consisting of 33 items. After the items in the factors were determined, they were examined and sub-dimensions were named. In this regard, first sub-dimension was named as *author* and second one was named as *content*.

4.4 Reliability Analyses

While evaluating the reliability of the Text Evaluation Scale for Child Rights, Cronbach Alpha, Spearman-Brown and Guttman internal consistency coefficients were calculated.

Table 16. Internal Consistency Coefficients of the Text Evaluation Scale for Child Rights

	r	p
Cronbach Alpha	0,901	p<0,05
Spearman-Brown	0,890	p<0,05
Guttman	0,859	p<0,05

When the table is examined, it is understood that Cronbach Alpha value is 0,901; Spearman-Brown value is 0,890 and Guttman value is 0,859. Due to the fact that all internal consistency coefficients are higher than the value of 0,80, it can be claimed that the reliability of the Text Evaluation Scale for Child Rights is high (Bademci, 2006; Özer&Dönmez, 2013; Karakoç&Dönmez, 2014). In short, all of the items in the Text Evaluation Scale for Child Rights aim to assess the same feature.

Since the scale consists of two factors, internal consistency values of the factors are given separately.

Table 17. Internal Consistency Values of the Factors Belonging to the text Evaluation Scale for Child Rights

Factors	The Number of the Items	Item Number		r	p
Author	7	1, 9, 16, 18, 25, 26, 35	Cronbach Alpha	0,822	p<0,05
			Spearman-Brown	0,814	p<0,05
			Guttman	0,800	p<0,05
Content	33	2, 3, 4, 5, 6, 7, 8, 10, 11, 12, 13, 14, 15, 17, 19, 20, 21, 22, 23, 24, 27, 28, 29, 30, 31, 32, 33, 34, 36, 37, 38, 39, 40	Cronbach Alpha	0,834	p<0,05
			Spearman-Brown	0,810	p<0,05
			Guttman	0,802	p<0,05

When Table 17 is examined, it is seen that the values for the factors *author* and *content* are higher than the value of 0,80. It also means that factors belonging to the Text Evaluation Scale for Child Rights are highly reliable.

Following to the reliability studies, items from each dimension were gathered, and reversely graded negative items were marked with red color and thus the scale was put into its final form. The scale was given in Appendix 1.

5. Discussion

The Text Evaluation Scale for Child Rights is a 5 point Likert scale developed to fill in the gap in the field. The theoretical framework of the scale is based on the United Nations Organization Child Rights Convention and

additional protocols to this convention, besides, international attempts for child rights, conventions, studies regarding the subject in the literature are also taken into consideration.

This scale, which could evaluate whether the texts developed for children or used for the education of children are suitable for child rights, consists of two sub dimensions and 40 items. The lowest possible score in the text is 40 while the highest possible score is 200. In the sub-dimension of the *author*, the attitude of the writer towards child rights is evaluated while child rights in the text are evaluated in the sub-dimension of *content*.

Regarding the sub-dimensions of the scale, the fact that Cronbach Alfa reliability coefficient is high (*author* sub-dimension = 0,822; *content* sub-dimension= 0,834) indicates that the items in the sub-dimension are consistent with each other. For the whole of the scale, it was determined that Cronbach Alfa value was 0,90; Spearman-Brown value was 0,890 and Guttman value was 0,859. It means that the scale is highly reliable (Bademci, 2006; Özer&Dönmez, 2013; Karakoç&Dönmez, 2014; Büyüköztürk, 2002; Gorsuch, 1983). That Cronbach Alfa reliability coefficient is higher than the coefficients related to the sub-dimensions can be interpreted as a fact that the scale could be used both unidimensional and multidimensional (Bozanoğlu, 2004). In the Text Evaluation Scale for Child Rights, there are items whose factor loading value is higher than 0,45. It is seen that the scale, which was developed according to the validity and reliability results, could be utilized to determine whether texts are adequate for child rights.

6. Conclusion

As a result of the fact that there are not studies similar to the Text Evaluation Scale for Child Rights in the literature, even though there are attitude scales for child rights or only book/text evaluation scales, there could not be found any chance to compare the scale directly.

It could be presented as a suggestion to test the scale with different sample groups since the sample group of the study was limited to undergraduates, teachers and academicians. Moreover, the books used for child education and the books suggested by official institutions and organizations could be evaluated with the help of the scale. Thus, education materials and books prepared for children could be provided with sensitivity to respect the child rights, furthermore, child rights education might be given prominence in the contents of the given materials and books.

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Appendix 1. The text evaluation scale for child rights

THE TEXT EVALUATION SCALE FOR CHILD RIGHTS

		<i>Strongly Disagree</i>	<i>Disagree</i>	<i>Neither Agree Nor Disagree</i>	<i>Agree</i>	<i>Strongly Agree</i>	
CONTENT	1.	Visuals provided on the cover/ before the text are suitable for the mental health of the child.					
	2.	The text is a publishing for protecting child’s physical and cognitive health.					
	3.	The text emphasizes the equality of opportunity in education.					
	4.	The text has enough qualifications to educate children against abuse					
	5.	In the text, every individual is accepted/ described as a child until they are 18.					
	6.	In the text, parents are advisors for the child’s development.					
	7.	In the text, a connective tone (language, religion, nation etc.) is adopted.					
	8.	In the text, child is called/placed by his/her name.					
	9.	In the text, the communication right of the child is respected.					
	10.	In the text, child is given a chance to express his/her opinion freely via an instrument he/she will choose.					
	11.	In the text, the data which belong to the child’s identity are respected (name, allegiance, family bonds etc.)					
	12.	In the text, the inherent right to life of the child is respected.					
	13.	Some statements/expressions which violate child rights were located in the text.					
	14.	Some visuals which could cause child abuse were used in the text.					
	15.	Some implications which could cause child abuse exist in the text					
	16.	In the text, a manner that tolerates child abuse is the point.					
	17.	The encouragement of child marriage is not the point in the text.	—	—	—	—	—
	18.	In the text, the child is imaged as a sex object					

	19.	Child/ children have been cared by their parents in the text.					
	20.	Children have freedom of religion and conscience in the text.					
	21.	In the text, children are deprived of their their freedom illegally.					
	22.	In the text, children are educated in accordance with their abilities.					
	23.	There is a physical offense towards children in the text					
	24.	Sexual abuse towards children is the point in the text.					
	25.	There is a cognitive offense towards children in the text.					
	26.	In the text, messages about the protection of children are given to the readers					
	27.	In the text, the idea of free medical support for children is supported					
	28.	In the text, there is a positive discrimination towards handicapped children.					
	29.	In the text, there is an approach about the active participation of the disabled children to the society					
	30.	The visuals taking part in the text have enough qualifications about affecting child's cognitive and physical development in a positive way					
	31.	In the text, there is an offense to child's honor and dignity.					
AUTHOR	32.	It is unfavorable for the parents of children who exposed to physical/mental violence to read the text.					
	33.	Children exposed to physical and mental violence can read the text.					
	34.	The author respects to the child's right to play.					
	35.	The author respects to the private life of the child.					
	36.	The author encourages children to get educated.					
	37.	The author takes the benefits of children into consideration about the subjects related to children.					
	38.	The author encourages children to attend an artistic life.					
	39.	The author tries to raise awareness level of children against harmful habits.					
	40.	The author has a criminal history related to child rights.					