

See discussions, stats, and author profiles for this publication at: <https://www.researchgate.net/publication/363483916>

A Validity and Reliability Study on Developing a Scale for Assessing Classroom Teachers' Attitudes Towards Illustrated Children's Books

Article in Educational Policy Analysis and Strategic Research · September 2022

DOI: 10.29329/epasr.2022.461.11

CITATIONS

0

READS

62

2 authors:



Seyit Ateş

Gazi University

64 PUBLICATIONS 460 CITATIONS

SEE PROFILE



Gül Şebnem Altuner Çoban

Bozok University

12 PUBLICATIONS 3 CITATIONS

SEE PROFILE

Some of the authors of this publication are also working on these related projects:



Bir adım da biz atalım: Okuyalım, paylaşalım, okutalım ve yayalım (Literature Circles) [View project](#)



Bir adım da biz atalım: Okuyalım, paylaşalım, okutalım ve yayalım (Literature Circles) [View project](#)

A Validity and Reliability Study on Developing a Scale for Assessing Classroom Teachers' Attitudes Towards Illustrated Children's Books

Seyit ATEŞ¹

Gazi University

Gül Şebnem ALTUNER ÇOBAN²

Yozgat Bozok University

Abstract

The aim of this research is to create a scale to assess classroom teachers' attitudes towards illustrated children's books and to reveal the psychometric aspects of the scale. Between September 13th and December 22nd, 2021, data for the study were collected from classroom teachers in various provinces of Turkey via social networks. Data were collected from a total of 819 people, 517 of whom were included in the exploratory factor analysis in the first stage, while 302 of whom were included in the second-order confirmatory factor analysis (CFA) in the second stage. The exploratory factor analysis (EFA) done with the first sample group yielded a three-component construct with 20 items, ensuring the construct validity of the scale. A second-order CFA was conducted using the second sample group to give evidence for the construct. The convergent validity of the scale was examined with the average variance extracted (AVE) and combined reliability (CR) values, while the divergent validity of the scale was examined by comparing the \sqrt{AVE} values with the correlation coefficients among the factors. Cronbach's alpha coefficient (Cr α) and combined reliability (CR) values were used to assess the scale's reliability. The scale was found to be valid and reliable in measuring classroom teachers' attitudes regarding illustrated children's books as a result of these examinations.

Keywords: Attitude scale, classroom teachers, illustrated children's books.

DOI: 10.29329/epasr.2022.461.11

¹Prof. Dr., Faculty of Education, Gazi University, Ankara, Turkey, ORCID: 0000-0002-4498-0376.

Correspondence: seyitates@gmail.com

² Res. Asst., Faculty of Education, Yozgat Bozok University, Yozgat, Turkey, ORCID: 0000-0002-4508-571X. Email: altunergulsebnem@gmail.com

Introduction

Illustrated children's books are considered as books that attract readers' attention with several visuals and a short-text narrative structure in a way as to enable them to focus on reading (Dockett, Perry & Whitton, 2006). In such publications, which are supposed to be as attentively prepared as those prepared for adults, the presence of artificial teaching, in which dry and childlike narration is dominant, may weaken the relationship between the child and the book in the course of time (Oğuzkan, 2006, p. 3; Sever, 2008). With the availability of quality books, children are likely to gain more knowledge and experience as well as the opportunity to learn to make connections between their experiences and their own lives, to look at life from different perspectives, to cope with different situations, and to develop their personalities (Erbaş, 2019; Gönen & Veziroğlu, 2013; Işıtan & Gönen, 2006). The relationship between children and books, which often begins at an early age with illustrated children's books, reinforces children's love of books and foster the culture of reading (Bilgin, 2011). Baccus (2004) found that teachers' experiences with reading books and providing orientation to students are influential in motivating students to read books. In the study of Myette (2006), the researcher stated that teachers are effective in inculcating reading habits in students. Arıcı (2005) similarly reported that 57.3% of the students got the idea of reading a book from their teacher, and 35.4% of them were given their first book by their teacher. Research also shows that the students taught by a teacher who reads a lot exhibit similar reading behaviour (Von Sprecken & Krashen, 1998). Such studies, which point to the fact that teachers have great responsibilities in creating a reading culture in children, also emphasize the relevant qualifications of teachers. Ateş (2021, p.345-346) stated that the students of teachers who regularly read books with children, are familiar with a wide variety of genres, and follow the newly released books will also be interested in books, and in addition to that, teachers' reading behaviour, their interest in reading, the kind of reading culture they possess, and what they know about the world of books- especially of children's books- will also be effective on students' reading culture.

In the international literature, this situation is expressed with the concept of the Peter Effect (Applegate & Applegate, 2004, p.561), claiming that "one cannot be expected to give what one does not possess". Teachers must be equipped with the necessary knowledge, skills and attitudes in order to guide their students successfully in the educational environment (Kılıç, 2007, p.137). It is believed that the positive attitudes that teachers may develop towards illustrated children's books will turn out to be effective to inculcate a love of books and reading culture in their students since teachers will become more likely to make use of such books in their classrooms as a natural result of the positive attitude. The three-component structure of attitude as cognitive, affective and behavioural was first defined by Smith (1947). Brecker (1984) stated that the cognitive component includes knowledge structures related to perceptual reactions and thoughts, the affective component includes reactions

related to emotions and excitement, and the behavioural component includes explicit actions and implicit tendencies (as cited in Erkuş, 2003). Spite of the fact that the literature has a diversity of definitions for attitude, it is widely agreed that attitude refers to the inclination to react positively or adversely to a stimulus or object (Beyer et al., 2015; Cohen & Swerdlik, 2015). According to relevant research (Handayani, Kosnin, Jiar & Imhonde 2011; Vogel & Wanke, 2016), having a positive attitude towards an object means showing positive behaviours towards that object, and having a negative attitude means negative behaviours towards that object.

There are no studies in the international literature that have been conducted with the goal of developing an attitude scale about illustrated children's books and children's literature, whereas there are several studies in the national literature that have been conducted on scales regarding prospective teachers' attitudes toward children's literature and undergraduate children's literature courses. However, an attitude scale towards illustrated children's books has not been found in the national literature either.

In this framework, Karagül (2020) developed a five-point Likert type scale to reveal the attitudes of prospective teachers towards children's literature. The scale consisted of 26 items, 18 of which were positive and 8 of which were negative, along with 3 factors, namely, awareness, appreciation and acceptance. Those three factors (1st factor 27.47%, 2nd factor 9.77%, and 3rd factor 7.57) proved to meet 44.82% of the explained variance, and the item test correlations ranged from .19 to .57. While the Cronbach's alpha reliability coefficient for the whole scale was .88, it was .86, for the first factor (awareness), .83 for the second factor (appreciation), and .75 for the third factor (acceptance). No information could be found about the CFA of the scale in the study.

The Attitude Scale towards Children's Literature was developed in Bağcı (2007)'s study to measure prospective Turkish teachers' attitudes about children's literature and children's literature courses. There were 35 items on a five-point Likert scale. The Cronbach's alpha reliability coefficient for the entire scale was found to be .80. The percentage and frequency values of the questions in the scale were determined as to the item analysis. No information was contained in the scale as regards item-test correlation, nor in relation to EFA and CFA.

Because no scales of attitude toward illustrated children's books have been found directly in the national and international literature, the current study is believed to be the first in the field.

Method

Sample Group

This study was conducted with two different sample groups in two different stages, in which 517 people were included for the EFA in the first stage and 302 people for the second-order CFA in the second stage. The demographic distribution of the participants is presented in Table1.

Table 1. Participants' demographic data

		Sample 1		Sample 2	
		f	%	f	%
Gender	Female	350	67.7	205	67.9
	Male	167	32.3	97	32.1
Length of service	0-5 years	109	21.1	71	23.5
	6-10 years	102	19.7	43	14.2
	11-15 years	54	10.4	53	17.5
	16-20 years	39	7.5	61	20.2
	20 years and over	213	41.2	74	24.5
Educational background	Associate degree	25	4.8	16	5.3
	Bachelor's degree	427	82.6	248	82.1
	Master's degree	61	11.8	36	11.9
	PhD degree	4	0.8	2	0.7

Scale Development Process

The relevant literature related to attitude towards illustrated children's books was reviewed via Google Scholar, YÖK Thesis Center, PROQUEST, SOBIAD, TOAD, Web of Science, and ERIC by focusing on the following key words: "attitude scale for illustrated children's books, attitude scale for children's books, illustrated children's books and attitude, attitude scale towards illustrated children's books, attitude scale towards picturebooks, attitude and picturebooks, attitude and illustrated children's books, attitude scale towards children's literature, attitude and children's literature, scale and picturebooks, scale and illustrated children's books". In the national literature, there were several scales connected to prospective teachers' attitudes toward children's literature and undergraduate children's literature courses, but no scales related to attitudes about illustrated children's books were found in the international literature. Besides that, no relevant scales were found that directly measures the attitudes of classroom teachers towards illustrated children's books.

As a consequence of the literature review, the scale's items were planned to be prepared. In this process, relevant literature as regards children's literature, illustrated children's books and attitude were taken into consideration in the item writing phase. While writing the items, the theoretical framework of the attitude and its cognitive, affective and behavioural sub-components were also taken into account. In the item pool consisting of a total of 62 items, 19 items were related to cognitive sub-component of attitude, 22 items to affective sub-component and 20 items to behavioural sub-component. In addition, on the basis of the view indicating that attitude is the reflection level of positive and negative emotions (Thurstone as cited in Erkuş, 2003), utmost attention was paid to include positive and negative expressions within the items. Consequently, 26 of the items contained negative statements, whereas 35 of them positive. Then, in order to evaluate the necessity, clarity and

originality of these statements, opinions were obtained from 6 experts, including 1 specialist in Turkish language, 4 specialist in classroom teaching field and 1 specialist in assessment and evaluation. Corrections were made in line with expert opinions, and 6 items containing ambiguous expressions were deleted, and a final trial form with 56 items was developed. The scale's items were scored using a five-point Likert scale (Strongly disagree with 1, disagree with 2, undecided with 3, agree with 4, strongly agree with 5).

Data Collection

The data were collected via Google Form from the first sample group within the period between 13 September and 3 November, 2021 and from the second sample group between 20 November and 22 December 2021 through online participation.

Data Analysis

Before starting the analyses, the data sets of both sample groups were examined to see if there were incorrect data entries, missing values, and extreme values. For extreme values, Z values and Mahalanobis Distance were examined. Six people in the first data set and five people in the second data set, who were outside the $-4 < Z < +4$ range (Mertler & Vannata, 2005), had a value of $\alpha = 0.001$ in the Mahalanobis Distance analysis, and exceeded the critical χ^2 value in the relevant degree of freedom (Tabachnick & Fidell, 2007), were not included in the analysis because they were outliers. The first data set, including 523 people in the first stage, was analysed as 517 participants, and the second data set, which was 307 people, as 302 participants with the exclusion of those with the extreme values. For the construct validity of the scale, first EFA and then second-order CFA were performed. The suitability of the data set for EFA was examined with KMO and Bartlett tests. Principal component analysis and the Varimax rotation method were used to uncover the scale's factor structure. Then, in order to test the accuracy of this structure, a second-order CFA was performed based on the maximum likelihood method. In the second-order CFA, fit values were examined with X^2/df , RMSEA, NFI, CFI, AGFI, GFI, IFI, and TLI. The average variance extracted (AVE) and composite reliability (CR) of the scale were investigated for convergent validity. For divergent validity, the \sqrt{AVE} value was compared with the inter-factor correlation. Cronbach's alpha values, item-total correlation coefficients, and composite reliability (CR) were used to assess the scale's reliability. The analysis was conducted using the SPSS 26.0 and AMOS 24 package tools.

Ethical Procedures

Approval of the Ethics Committee was acquired from Yozgat Bozok University Ethics Committee by Decision No: E-14415064-900-24829 dated 13.07.2021.

Results

Results Regarding the Validity

In scale development studies, a number of researchers suggest that the sample size be “at least 300 people” in order to carry out a factor analysis, whereas some other researchers generally consider that “the number of observations for each variable should be between 5 and 10 people” (Bryman & Cramer, 2001; Comrey & Lee, 1992; Pett, Lackey & Sullivan, 2003; Tabachnick & Fidell, 2007; Tavşancıl, 2005). In this study, data obtained from 517 participants for EFA and that obtained from 302 participants for second-order CFA met the criteria specified for sample size.

The suitability of the data for factor analysis was evaluated prior to the EFA using the KMO and Bartlett's Test of Sphericity. As a result of the analysis, the KMO value was .93 and the result of the Bartlett's Test of Sphericity was significant ($X^2=5264, 567$, $sd= 190$, $p=0.000$). The fact that the KMO value is above .60 and the Bartlett's test gives out a statistically significant result means that the data used in the study are suitable for factor analysis (Field, 2005; Kline, 2010; Pallant, 2001). Principal component analysis, one of the factorization methods, and the Varimax rotation method, one of the rotation methods, were employed to discover the scale's factor construct. The scree plot created on the basis of the EFA is presented in Figure 1.

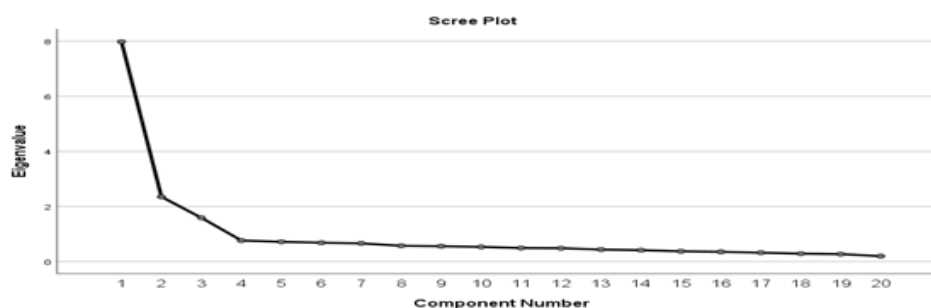


Figure 1. Scree Plot

The 36 items (1, 2, 3, 6, 8, 10, 12, 15, 16, 17, 18, 22, 23, 28, 30, 31, 33, 34, 35, 37, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 53, 54, and 55) loaded on more than one factor were discarded from the 56-item scale after the scree plot and explained variance table were examined at the same time. The remaining 20 items formed a three-factor structure. The eigenvalue of the first factor was found to be 7.98, accounting for 39.91% of the variance. This factor, consisting of 7 items (5, 13, 14, 24, 25, 32, and 36), was named “Inclination”. The eigenvalue of the second factor was found to be 2.35, explaining 11.75% of the variance. This factor, consisting of other 7 items (19, 20, 26, 29, 38, 52, and 56), was named “Interest”. The eigenvalue of the third factor was found to be 1.58, explaining 7.94% of the variance. This factor, consisting of 6 items (4, 7, 9, 11, 21, and 27), was named “Avoidance”. Factor names were determined by taking the opinions of six field experts. These three

sub-factors together explained 60.07% of the variance as regards the related attitude variable. The criterion indicating that the total variance explained should be above 50% is met (Thompson, 2004). Table 2 below presents the factor load values and common factor variance of the items.

Table 2. Factor Load Values and Common Factor Variance

		Inclination	Interest	Avoidance	Common Factor Variance
	Items				
Inclination	I 5 I think that students are likely to participate actively in the lessons when taught with illustrated children's books.	.652			.480
	I 13 I enjoy having a look at illustrated children's books.	.678			.622
	I 14 Making use of illustrated children's books while teaching increases my motivation.	.727			.687
	I 24 I believe that illustrated children's books attract students' attention.	.795			.699
	I 25 I like to use illustrated children's books in my classroom.	.821			.768
	I 32 I think that my students better understand the subject I am teaching when I use illustrated children's books.	.706			.620
	I 36 I believe that illustrated children's books make teaching fun.	.788			.692
Interest	I 19 I do research on newly released illustrated children's books.		.739		.612
	I 20 I like to follow those who share about illustrated children's books on social media.		.705		.621
	I 26 I follow the publications (magazines, websites, books, etc.) about illustrated children's books.		.733		.631
	I 29 I read book reviews on the Internet to get an idea about illustrated children's books.		.789		.663
	I 38 I go to bookstores, book fairs, etc. to have a look at illustrated children's books.		.731		.566
	I 52 Whenever I go to a bookstore, I never leave the store without stopping by the aisle of illustrated children's books.		.740		.619
	I 56 I enjoy doing research on the authors and illustrators of illustrated children's books.		.746		.587
Avoidance	I 4 I find it tiring to make use of illustrated children's books in my classes.			.708	.529
	I 7 I think that using illustrated children's books is a waste of time in terms of language skills.			.659	.526
	I 9 I feel uneasy as I have difficulty using illustrated children's books.			.696	.485
	I 11 I think that the use of illustrated children's books in lessons is not appropriate in terms of fulfilling the achievements.			.623	.447
	I 21 I find it difficult to plan a lesson to teach with the support of illustrated children's books.			.692	.531
	I 27 I think that illustrated children's books will make it difficult to use time effectively.			.655	.536
		Eigenvalues:	7.97	2.35	1.68
	Explained Variance:	39.88	11.76	8.43	-
	Total Variance Explained:		60.07		-

* The table does not display load values smaller than .40.

The factor loads of the first factor related to the scale's items are between .65 and .82, those of the second factor are between .70 and .78, and those of the third factor are between .62 and .70, as shown in Table 2. Having factor loads above .40 provides the criteria for an item to be included within a factor (DeVellis, 2014; Hair, Black, Babin, Anderson & Tatham, 2014; Harrington, 2009). These findings show that the construct validity of the scale is provided.

The correlation coefficients between the scale's factors are shown in Table 3. As a consequence of the analysis, the factors were found to have a moderate, positive, and significant association.

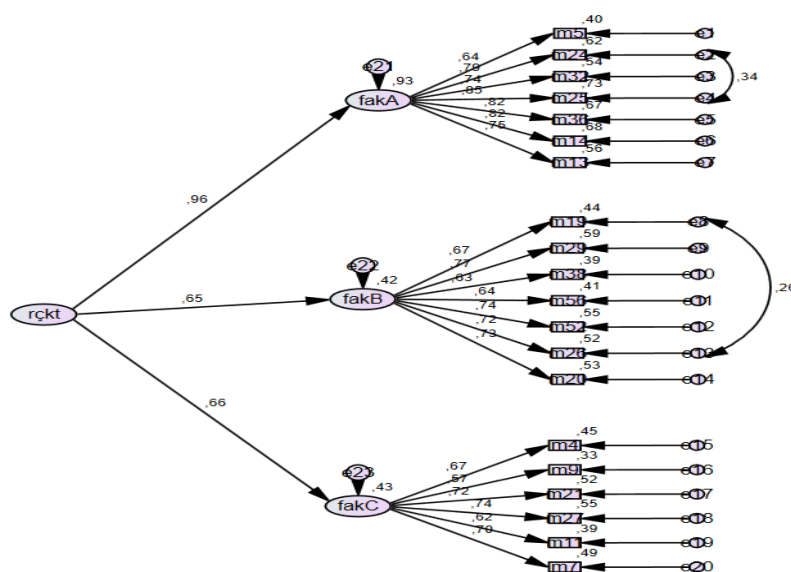
Table 3. Correlation Coefficients between Factors

Factors	1	2	3
1.Inclination	-		
2.Interest	.566*	-	
3.Avoidance	.523*	.347*	-

*p<0.001

The correlation between the factors of the scale is between .37 and .56, as shown in Table 3. The fact that the correlations are above .20 with p<0.001 provides evidence that these three factors constitute the components of the classroom teachers' attitude towards illustrated children's books (Kalaycı, 2010).

Second-order CFA employing the maximum likelihood method was used to confirm the three-factor structure produced by the EFA. Figure 2 shows the factor distributions and values obtained from the second-order CFA.



Şekil 2. Second-order CFA

In this study, χ^2/df , RMSEA, NFI, CFI, AGFI, GFI, IFI, and TLI were examined as model fit indices. The findings of the second-order CFA performed on the scale structure consisting of 3 factors and 20 items, the results obtained with two modifications on the model can be summarized as follows: [$\chi^2/df=1.75$ ($p=.000$), RMSEA=.050, NFI=.91, CFI=.95, AGFI=.89, GFI=.91, IFI=.95, and TLI=.95].

The χ^2/df value for the model is 1.75, according to the fit indices derived for it. The model is perfect if the χ^2/df value is smaller than 2 (Anderson & Gerbing, 1984; Kline, 2010; Tabachnick & Fidell, 2007). The RMSEA value was found to be .050, indicating a good fit (Browne & Cudeck, 1993; McQuitty, 2004; Steiger, 2007). In this study, the CFI was found .95, while the NFI was .91. When these two values are .90 and above, it can be assumed that the model has a good fit (Kline, 2010; Thompson, 2004). The analysis of the AGFI and GFI values showed that the AGFI was found .89, and GFI was .91. The levels of .85 and above for GFI, and .80 and above for AGFI indicate an acceptable fit (Hooper, Coughlan & Mullen, 2008; Schermelleh-Engel & Moosbrugger, 2003). When it comes to the IFI and TLI values, it appears that the IFI was .95 and the TLI was .95. The values being .95 and above reflects the perfect fit (Byrne, 2011; Marsh, Hau, Artelt, Baumert & Peschar, 2006).

As a consequence of the second-order CFA, the CR value in the AMOS output is distributed as a z-statistic, expressing the statistical significance of the parameter (Byrne, 2011). The CR values of the items were found to range from 6.18 to 12.58. In order to deem the items to be statistically significant at the .05 level, their Z values are expected to be above 1.96 (Bayram, 2010). According to the CR values of the scale, all items were deemed to be statistically significant in the study. As a result of all the findings examined, the questionnaire developed in this study shows good fit.

Table 4. Convergent Validity Measures

Factors	AVE	CR
Inclination	0.566	0.901
Interest	0.526	0.886
Avoidance	0.472	0.843

Convergent validity was examined through the scale's AVE and CR measures. As can be seen in Table 4, the AVE value is 0.566 for the first factor, 0.526 for the second and 0.472 for the third. The CR value is 0.901 for the first factor, 0.886 for the second factor and 0.843 for the third factor. If the mean variance is below than 0.5 and the composite reliability is above than 0.6, the construct has acceptable convergent validity (Fornell & Larcker, 1981). These findings prove that the convergent validity of the scale has been achieved.

It is possible to compare the \sqrt{AVE} value with the correlation between factors to ensure divergent validity (Hair et al., 2014). In our study, the values we found are as follows: $\sqrt{AVE} = 0.75$ for the first factor, $\sqrt{AVE} = 0.72$ for the second factor, and $\sqrt{AVE} = 0.68$ for the third factor, respectively. As seen in Table 3, the \sqrt{AVE} value of each factor is higher than the correlation between the factors, a result which shows that the scale has convergent validity.

Results Regarding Reliability and Item Analysis

To verify the scale's internal consistency dependability, Cronbach's Alpha reliability coefficients were determined for the entire scale and for each factor independently. In addition, item-total correlation coefficients were examined in order to determine whether each item in the questionnaire measured the approach intended to be measured or not. The results regarding the Cronbach's Alpha reliability coefficients, item-total test correlations and CR values are presented in Table 5.

Table 5. Item-Total Correlation Tests for Items and Cronbach's Alpha Confidence Coefficients

Factors / Items	\bar{X}	S	Item-Total Correlation	Cronbach's Alpha Coefficient of Confidence with Item Removed
Factor 1: Inclination ($\alpha = .90$, CR=.90)				
I 5	4.40	0.73	.595	.908
I 13	4.41	0.64	.705	.895
I 14	4.38	0.66	.765	.888
I 24	4.50	0.66	.743	.890
I 25	4.41	0.63	.808	.884
I 32	4.25	0.70	.709	.894
I 36	4.39	0.64	.746	.890
Factor 2: Interest ($\alpha = .89$, CR=.88)				
I 19	3.68	0.90	.695	.875
I 20	3.85	0.97	.689	.876
I 26	3.80	0.91	.714	.873
I 29	3.83	0.93	.727	.871
I 38	3.68	0.98	.635	.883
I 52	3.85	0.94	.700	.874
I 56	3.72	0.90	.662	.879
Factor 3: Avoidance ($\alpha = .80$, CR=.84)				
I 4	4.32	0.75	.564	.765
I 7	4.36	0.76	.583	.760
I 9	4.19	0.83	.483	.784
I 11	4.25	0.79	.523	.774
I 21	4.01	0.77	.579	.761
I 27	4.10	0.78	.589	.759
Scale ($\alpha = .91$)				

As shown in Table 5, the Cronbach's alpha reliability coefficient obtained for the entire scale is .91, and that for the first factor is .90, with the composite reliability being .90. The Cronbach's

alpha reliability coefficient obtained for the second factor is .89 with the composite reliability being .88, while the Cronbach's alpha reliability coefficient obtained for the third factor is .80 and the composite reliability is .84. That the Cronbach's alpha and CR values are above 0.60-0.70 demonstrates that the scale is reliable (Hair, Hult, Ringle, Sarstedt, 2014; Nunnally, 1978; Şencan, 2005). Such results show that the scale has adequately reliable.

The item analysis results given in Table 3 indicate that the item-total test correlation values vary between .59 and .80 in the Inclination factor, between .66 and .72 in the Interest factor, and between .48 and .58 in the Avoidance factor. Item-total correlation values of .30 and above are validity proof of the scale items' validity (DeVellis, 2014; Kline, 1986; Nunnally & Bernstein, 1994). In the light of these results, it can be assumed that the survey questionnaire items measure the same construct.

Conclusion and Recommendations

In this study, "Attitude Scale for Classroom Teachers towards Illustrated Children's Books" were developed and identified this scale's psychometric properties. In line with the analyses made with the data obtained from two different sample groups in this study, a construct consisting of 20 items and 3 factors (Inclination, Interest, and Avoidance) was formed, and it explained 60.07% of the total variance. There were seven items in the first factor, seven items in the second factor, and six items in the third factor. On the basis of examining the fit index values obtained from the second-order CFA, the scale can be considered to have good fit values [$\chi^2/df=1.75$ ($p=.000$); RMSEA=.050; NFI=.91; CFI=.95; AGFI=.89; GFI=.91; IFI=.95; TLI=.95]. The scale's AVE and CR values were assessed for convergent validity. The AVE value was .566 for the first factor, .526 for the second factor and .472 for the third factor, whereas the CR value was .901 for the first factor, .886 for the second factor, and .843 for the third factor. As a result, the convergent validity of the scale is ensured. For divergent validity, the \sqrt{AVE} value was compared with the inter-factor correlation. The fact that the \sqrt{AVE} value of each factor (.75; .72; .68) was higher than the correlation between the factors (.56; .52; .34) indicates that the scale's divergent validity was ensured.

Cronbach's Alpha reliability coefficients, item-total test correlations, and CR values were investigated to determine the scale's reliability. The Cronbach's alpha reliability coefficient of the scale was .91 and that of the first factor was .90 with the composite reliability being .90. Likewise, the Cronbach's alpha reliability coefficient obtained for the second factor was .89 with the composite reliability being .88; and the Cronbach's alpha reliability coefficient for the third factor was calculated as .80 and the composite reliability as .84. The results obtained proved that the scale is reliable. In this context, the item-total test correlation coefficients ranged from .59 to .80 in the first factor

(Inclination); from .66 to .72 in the second factor (Interest), and from .48 to .58 in the third factor (Avoidance). These results show that the scale items measure the same construct.

Given the study's findings, it can be assumed that the questionnaire presented in Annex I has a valid and reliable structure. This scale is expected to contribute to the existing literature in terms of exposing classroom teachers' attitudes toward illustrated children's books. The validity, reliability, and factor construct of the scale can be tested with data obtained from various branches of teaching. Further studies can be planned in line with a mixed methods design and can be conducted by enriching the scale with qualitative data. On the basis of the results obtained with the scale developed in our study, educational studies can be planned with teachers towards illustrated children's books. This questionnaire has been developed in Turkish, so it may also be recommended that the validity and reliability of the current scale be examined in terms of different languages.

References

- Anderson, J. C., & Gerbing, D. W. (1984). The effect of sampling error on convergence, improper solutions, and goodness-of-fit indices for maximum likelihood confirmatory factor analysis. *Psychometrika*, 49(2), 155–173. <https://doi.org/10.1007/BF02294170>.
- Applegate, A. J., & Applegate, M. D. (2004). The Peter effect: Reading habits and attitudes of preservice teachers. *The Reading Teacher*, 57(6), 554-563.
- Arıcı, A. F. (2005). İlköğretim ikinci kademe öğrencilerinin okuma durumları. Doktora Tezi, Atatürk Üniversitesi, Erzurum.
- Ateş, S. (2021). İlkokulda çocuk edebiyatı. H. Akyol, A. Avşar Tuncay (Ed.), İlkokulda eğitim ve öğretim içinde (s. 333-358). Ankara: Pegem.
- Baccus, A. A. (2004). Urban fourth and fifth grade teachers' reading attitudes and efficacy beliefs: Relationships to reading instruction and to students' reading attitudes and efficacy beliefs. United States: University of Maryland.
- Bağcı, H. (2007). Türkçe öğretmeni adaylarının çocuk edebiyatına ve çocuk edebiyatı dersine yönelik tutumlarının değerlendirilmesi. *Milli Eğitim Dergisi*, 36(174), 116-134.
- Bayram, N. (2010). Yapısal Eşitlik Modellemesine Giriş Amos Uygulamaları. Bursa: Ezgi.
- Beyer, K., Bizub, J., Szabo, A., Heller, B., Kistner, A., Shawgo, E., & Zetts, C. (2015). Development and validation of the attitudes toward outdoor play scales for children. *Social science & medicine*, 133, 253-260.
- Bilgin, H. (2011). 5-6 Yaş çocuklarına yönelik 1990-2010 yılları arasında basılan resimli kitapların çocuğa görelilik kavramına göre incelenmesi. Yayınlanmamış Yüksek Lisans Tezi. Marmara Üniversitesi, Eğitim Bilimleri Enstitüsü, İstanbul.
- Browne, M. W., & Cudeck, R. (1993). Alternative ways of assessing model fit. In K. A. Bollen and J. S. Long (Eds.), *Testing structural equation models* (pp. 136-162). Newbury Park, CA: Sage.

- Bryman, A., & Cramer, D. (2001). *Quantitative data analysis with SPSS release 10 for Windows*. London: Routledge.
- Byrne, B. M. (2011). *Structural equation modeling with AMOS basic concepts, applications, and programming (Multivariate Applications Series)*. Routledge, New York.
- Cohen, R. J., & Swerdlik, M. E. (2015). *Psychological Testing and Assessment*. E. Tavşancıl (Translation Ed.). Ankara: Nobel.
- Comrey, A. L., & Lee, H. B. (1992). *A first course in factor analysis (2nd ed.)*. Hillsdale, NJ: Lawrence Erlbaum.
- DeVellis, R. F. (2014). *Ölçek geliştirme*. T. Totan (Translation). Ankara: Nobel.
- Dockett, S., Perry, B., & Whitton, D. (2006). Picture storybooks and starting school. *Early Child Development and Care*, 176, 835–848. <https://doi.org/10.1080/03004430500293880>.
- Erkuş, A. (2003). *Psikometri üzerine yazılar*. Ankara: Türk Psikologlar Derneği.
- Erbaş, Y.H. (2019). Teaching diversity: Elementary school teachers' opinions and experiences on the use of multicultural children's books. *International Social Sciences Studies Journal*, 5(29), 404-409.
- Field, A. (2005). *Discovering statistics using SPSS (2nd ed.)*. London: Sage.
- Fornell, C., & Larcker, D. F. (1981). Evaluating structural equation models with unobservable variables and measurement error. *Journal Of Marketing Research*, 39-50.
- Gönen, M., & Veziroğlu, M. (2013). Çocuk edebiyatının genel hedefleri. M. Gönen (Ed.), *Çocuk Edebiyatı* (ss. 1-11) içinde. Ankara: Eğiten Kitap.
- Hair, J. F., Black, W. C., Babin, B. J., Anderson, R. E., & Tatham, R. L. (2014). *Multivariate data analysis*. Boston: Pearson.
- Hair, J. F., Hult, G. T. M., Ringle, C., & Sarstedt, M. (2014). *A Primer on Partial Least Squares Structural Equation Modeling (PLS-SEM)*. New York: Sage.
- Handayani, L., Kosnin, A. M., Jiar, Y. K., & Imhonde, H. O. (2011). Validity and reliability of breastfeeding attitude scale in Indonesian population. *Gender and Behaviour*, 9(2), 4217-4223. <https://doi.org/10.4314/gab.v9i2.72194>.
- Harrington, D. (2009). *Confirmatory factor analysis*. New York: Oxford University.
- Hooper, D., Coughlan, J., & Mullen, M. (2008). Structural equation modelling: Guidelines for determining model fit. *Electronic Journal of Business Research Methods*, 6(1), 53-60.
- Işıtan, S., & Gönen, M. (2006). Resimli çocuk kitaplarının benlik kavramıyla ilgili konuları içermesi yönünden incelenmesi. II. Ulusal Çocuk ve Gençlik Edebiyatı Sempozyumu Bildiri Kitabı, 413-420.
- Kalaycı, Ş. (2010). *SPSS uygulamalı çok değişkenli istatistik teknikleri*. Ankara: Asil.
- Karagül, S. (2020). Çocuk edebiyatına yönelik tutum ölçeği geliştirilmesi: Geçerlik ve güvenirlik çalışması. *Çocuk Edebiyat ve Dil Eğitimi Dergisi*, 3(2), 203-226. <https://doi.org/10.47935/ceded.836154>.

- Kılıç, A. (2007). Sınıf öğretmeni yetiştirme programında yer alan derslerin öğrenilme düzeyleri. *Elektronik Sosyal Bilimler Dergisi*, 6(19), 136-145.
- Kline, P. (1986). *A handbook of test construction: Introduction to psychometric design*. New York: Methuen.
- Kline, R. B. (2010). *Principles and practice of structural equation modeling*. New York: Guilford.
- Marsh, H. W., Hau, K. T., Artelt, C., Baumert, J., & Peschar, J. L. (2006). OECD's Brief Self-Report Measure of Educational Psychology's Most Useful Affective Constructs: Cross-Cultural, Psychometric Comparisons across 25 Countries. *International Journal of Testing*, 6(4), 311-360. https://doi.org/10.1207/s15327574ijt0604_1.
- McQuitty, S. (2004). Statistical power and structural equation models in business research. *Journal of Business Research*, 57(2), 175-183. [https://doi.org/10.1016/S0148-2963\(01\)00301-0](https://doi.org/10.1016/S0148-2963(01)00301-0).
- Mertler, C. A., & Vannatta, R.A. (2005) *Advanced and Multivariate Statistical Methods: Practical Application and Interpretation*. Los Angeles: Pyrczak.
- Myette, S. (2006). Finding a great read: Book selection strategies for sixth grade silent reading an abstract. Master of Arts in Education, Pacific Lutheran University, United States.
- Nunnally, J. C. (1978). *Psychometric testing*. New York: Mc Graw-Hill.
- Nunnally, J. C., & Bernstein, I. (1994). *Psychometric theory*. New York: Mc Graw-Hill.
- Oğuzkan, A. F. (2006). *Yerli ve yabancı yazarlardan örneklerle çocuk edebiyatı*. Ankara: Anı.
- Pallant, J. (2001). *SPSS survival manual*. Maidenhead: Open University.
- Pett, M. A., Lackey, N. R., & Sullivan, J. J. (2003). *Making sense of factor analysis: The use of factor analysis for instrument development in health care research*. CA: Sage.
- Schermelleh-Engel, K., Moosbrugger, H., & Müller, H. (2003). Evaluating the fit of structural equation models: Tests of significance and descriptive goodness-of-fit measures. *Methods of Psychological Research Online*, 8, 23–74.
- Sever, S. (2008). *Çocuk ve edebiyat*. Ankara: Tudem.
- Smith, M. B. (1947). The personal setting of public opinions: A study of attitudes toward Russia. In Fisbein, M. (Eds.). *Attitude theory and measurement*. New York: Pergamon.
- Steiger, J. H. (2007). Understanding the limitations of global fit assessment in structural equation modeling. *Personality and Individual Differences*, 42(5), 893-98. <https://doi.org/10.1016/j.paid.2006.09.017>.
- Şencan, H. (2005). *Sosyal ve davranışsal ölçümlerde güvenirlik ve geçerlilik*. Ankara: Seçkin.
- Tabachnick, B. G., & Fidell, L. S. (2007). *Using multivariate statistics* (5. edition). Boston: Allyn and Bacon.
- Tavşancıl, E. (2005). *Tutumların ölçülmesi ve SPSS ile veri analizi*. Ankara: Nobel.
- Thompson, B. (2004). *Exploratory and confirmatory factor analysis: Understanding concepts and applications*. Washington: American Psychological Association.
- Vogel, T. & Wanke, M. (2016). *Attitudes and attitude change*. NY: Routledge.

Von Sprecken, D., & Krashen, S. (1998). Do students read during sustained silent reading? *California Reader*, 32(1), 11-13.

Appendix I

Madde No	Maddeler	Kesinlikle Katılmıyorum	Katılmıyorum	Kararsızım	Katılıyorum	Kesinlikle Katılıyorum
1	Resimli çocuk kitaplarıyla işlenen derslerde öğrencilerin derse aktif katılacağını düşünüyorum.					
2	Derslerimde resimli çocuk kitapları kullanmanın yorucu olduğunu düşünüyorum.					
3	Yeni çıkan resimli çocuk kitaplarıyla ilgili araştırma yaparım.					
4	Resimli çocuk kitaplarını incelerken keyif alırım.					
5	Resimli çocuk kitaplarının dil becerileri açısından zaman kaybı olduğunu düşünüyorum.					
6	Ders işlerken resimli çocuk kitapları kullanmak motivasyonumu artırır.					
7	Sosyal medya hesabında resimli çocuk kitaplarıyla ilgili paylaşım yapanları takip etmek hoşuma gider.					
8	Resimli çocuk kitaplarının kullanırken zorlandığım için kendimi huzursuz hissedirim.					
9	Resimli çocuk kitaplarının öğrencilerin dikkatini çektiğini düşünüyorum.					
10	Resimli çocuk kitaplarıyla ilgili yayınları (dergi, internet sitesi, kitap vb.) takip ederim.					
11	Derslerde resimli çocuk kitap kullanımının kazanımları gerçekleştirme açısından uygun olmadığını düşünüyorum.					
12	Sınıfta resimli çocuk kitapları kullanmak hoşuma gider.					
13	Resimli çocuk kitapları ile ilgili fikir edinmek için internetten kitaplarla ilgili yorumları okurum.					
14	Resimli çocuk kitapları destekli işlenecek bir derse planlamakta zorlanırım.					
15	Resimli çocuk kitaplarının ders işlemeyi eğlenceli hale getirdiğine inanıyorum.					
16	Resimli çocuk kitaplarını incelemek için kitapçılara, kitap fuarlarına vb. giderim.					
17	Resimli çocuk kitaplarının zamanı etkili kullanmayı zorlaştıracağını düşünüyorum.					
18	Bir kitapçıya gitsem resimli çocuk kitabı reyonuna uğramadan çıkmam.					
19	Resimli çocuk kitapları kullandığımda, öğrencilerimin işlediğim konuyu daha iyi anladığını düşünüyorum.					
20	Resimli çocuk kitaplarının yazar ve çizerleri hakkında araştırma yapmak hoşuma gider.					