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Adaptation of the Systematic Assessment of Book Reading Tool (SABR-2.2) into Turkish

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Abstract: This study aims to adapt SABR-2.2 to the Turkish language and culture. The tool was developed to evaluate the quality of preschool teachers' book-reading activities with children. The adaptation of the SABR-2.2 was conducted in line with the theoretical and practical models and criteria. A total of 150 volunteer preschool teachers employed in preschools and kindergartens in Ankara participated in the study. According to the results, the factor loadings for 11 items ranged from .40 to .83, accounted for 46% of the total variance, and indicated a unidimensional structure. The goodness-of-fit indices obtained from the confirmatory analyses (χ^2/df = 1.43, CFI = .95, GFI = .87, NNFI = .92, TLI = .92, RMSEA = .080, SRMR = .090) indicated an acceptable to good level of model-data fit. For the 11-item scale, Cronbach's α was .81, and McDonald's ω was .90. These values indicate that the scale works with high internal consistency. In addition, the total scores obtained from the scale seem to provide high discrimination between the lower and upper groups. In line with these findings, the scale is considered a valid and reliable instrument for evaluating teachers' book reading practices in the Turkish culture.

INTRODUCTION

Supporting language and early literacy skills at an early age plays a critical role in children's prospective educational life (Barnes & Puccioni, 2017; Justice & Kaderavek, 2002; Whitehurst & Lonigan, 1998). Research has shown that early literacy skills are closely associated with later literacy skills (Dickinson & Porche, 2011; Sénéchal & LeFevre, 2002; Shanahan & Lonigan, 2010) and that early literacy skills in preschool predict literacy performance in the first grade (Castro & Barrera, 2019). Phonological and writing awareness, as key components of early literacy, have been considered as significant predictors of future literacy development (National Early Literacy Panel, 2008).

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Early literacy skills include phonological awareness, print awareness, listening comprehension, name writing, alphabet and letter knowledge, and vocabulary (Dickinson & McCabe, 2001; Zucker *et al.*, 2009). Whitehurst and Lonigan (1998) define early literacy development as the acquisition of certain behaviours, knowledge, skills, and attitudes, first from the inside out and then from the outside in. Supporting early literacy skills holistically from the preschool period onward, as emphasized in Rohde's (2015) *Comprehensive Early Literacy Model*, is a crucial process. One of the most important activities that contributes to this process is quality book-reading experiences with children (Ezell & Justice, 2000; Morrow & Gambrell, 2004).

Language and early literacy skills are closely linked to the frequency and quality of book-reading experiences to which children are exposed during the preschool years (Justice & Pullen, 2003). The use of children's picture books in the classroom environment increases children's receptive and expressive language (Dowdall *et al.*, 2020; Wasik *et al.*, 2016), literacy skills (Weadman *et al.*, 2022; Zucker *et al.*, 2013), and creates environments that enable children to actively engage in these skills (Gonzalez *et al.*, 2014). Moreover, reading books regularly creates interactive contexts that nurture language development (Dickinson *et al.*, 2012).

Considering the importance of reading books for the development of children, the quality of the reading processes of adults with children comes to the fore. Unlike traditional reading, the teacher keeps the children engaged by asking questions and having extratextual conversations with them (Sembiante *et al.*, 2018). In book reading processes, teachers use strategies for early literacy interactions and make decisions about language and early literacy support (Williamson *et al.*, 2026). Teacher dialogue provides children with a meaningful context in terms of language and early literacy skills. Recent studies have begun to focus on effective teacher-to-child dialogues, especially in low socioeconomic contexts, and teachers' strategies to support children's language and early literacy skills (Hindman *et al.*, 2022). Studies emphasize the significant role of high-quality conversations (Barnes *et al.*, 2017) and frequency of extratextual talk in the acquisition of vocabulary in children (Zucker *et al.*, 2013). In this context, the strategies applied by teachers in reading books and the quality of extratextual conversations gain extra value.

In addition, Zucker *et al.* (2021) state that the instructional content of shared reading conversations was grouped into two categories: meaning-related talk, which supports textual comprehension, and literacy-related talk, which facilitates children's understanding of print concepts and book-related features. During book reading, teachers use a range of instructional utterances and engage children in discussions about code-related skills as well as the meaning of the text (Sembiante *et al*., 2018). In this context, high-quality interactions between adults and children serve as a supportive factor in the development of language and early literacy skills (Dickinson & Smith, 1994; Gonzalez *et al.*, 2014). Questioning strategies implemented during the process of reading books require active participation of children and can support story comprehension and attention to new words. Moreover, the verbal responses of the adult are considered as the strategies that support vocabulary learning in the process (Blewitt & Langan, 2016). The studies in the national context, Türkiye, echo the findings on the positive contributions of reading books on children's development (Ergül *et al.*, 2016; Tepetaş-Cengiz & Gönen, 2018; Yılmaz & Turguner, 2022).

Teachers' knowledge of early language and literacy relates to classroom practices and children's early literacy development (Piasta *et al.*, 2020). Research argues that most of the questions teachers ask during shared reading are simple, and that 'why' questions are used less frequently (Deshmukh *et al.*, 2019). The studies also focus on the evaluation of the shared reading processes (He & Bowman, 2021; Mascareño *et al.*, 2016; Pentimonti *et al.*, 2012; Weadman *et al.*, 2022). For instance, Işıkoğlu and Şimşek (2020) reveal the most preferred book reading technique of preschool teachers as traditional reading. Similarly, Ergül *et al.* (2015) observed that many preschool teachers read the book uninterrupted without interacting

with the children. According to the study by Işıkoğlu-Erdoğan *et al.* (2016), parents and teachers prefer adult-centered reading techniques where children stay passive; they also favor less interaction that avoids asking questions related to children's lives or asking open-ended questions. Hence, a comprehensive examination of teachers' uses of reading processes is needed to support children's verbal language and early literacy skills in a more efficient way, considering the practices in Türkiye.

As for the national context, numerous measurement tools have been developed in Türkiye to evaluate the effects of picture book reading processes on children's early literacy skills. To illustrate, the "Dialogic Reading Behaviours Checklist", developed by Ergül *et al.* (2015), enables the examination of preschool teachers' book reading activities in the context of interactive book reading. This tool consists of a total of 35 observation items and allows the frequency of each behaviour to be evaluated. Another tool, the "Read Aloud Teacher Assessment Form" (Deniz, 2018), aims to evaluate read-aloud processes. The form consists of four dimensions with 29 items: effective reading of the story (5 items), supporting the receptive language (10 items), supporting expressive language (10 items), and activity environment (4 items).

Apart from these measurement tools, the national context signals a need for a tool that evaluates the interactive process of reading picture books at all stages: before, during, and after reading books. This tool will help demonstrate the stages of reading children's picture books and the skills that teachers use to support children's early literacy development. Therefore, Tepetaş-Cengiz (2015) adapted The Systematic Assessment of Book Reading developed by Justice *et al.* (2010). This measurement tool consists of five sub-dimensions (language development, abstract thinking, elaboration, print/phonological skills, environment/atmosphere) and measures the effectiveness of teachers' picture storybook reading activities (Tepetaş-Cengiz, 2015; Tepetaş-Cengiz & Gönen, 2015). In 2021, Pentimonti *et al.* updated the tool, SABR-2.2, making it more functional and providing ease of coding through videos. All in all, adapting a new measurement tool to Turkish culture to evaluate the process of teachers' reading books to and with children in preschool classes has become a crucial task. Therefore, this study aims to implement the adaptation stages of SABR-2.2 to evaluate the book-reading process of preschool teachers in Turkish classrooms. The following research questions are sought to be answered:

1. Is SABR-2.2 a valid tool?
2. Is SABR-2.2 a reliable tool?

METHOD

The present study was conducted as basic research within the framework of a broader, comprehensive project. As defined by Fraenkel *et al.* (2012), basic research aims to reveal the processes operating in the background and contribute to the production of theoretical knowledge by considering theoretical hypotheses, unlike applied research, which focuses on practical points and their effectiveness.

Sample

The sample for this study was selected by the maximum variation method, a purposive sampling method. Maximum variation sampling involves including diverse cases within the sample to capture existing variations and to ensure broad representation of individuals with differing characteristics (Creswell, 2015). Therefore, 150 preschool teachers who voluntarily participated in the study were observed in 49 preschools and kindergartens across the districts of Ankara: Altındağ (3), Çankaya (11), Etimesgut (5), Keçiören (11), Mamak (11), Sincan (3), Yenimahalle (5). Two teachers are male, and the other participants are female. The average age of teachers is 36.11 years, and the average professional experience is 12.46 years. Table 1 displays demographic information about the participants.

Table 1. *Demographic information on sampling.*

Variables	Groups	*n*	%
Gender	Female	148	98.7
	Male	2	1.3
Age	21-30 years	36	24.0
	31-40 years	79	52.7
	Age 41 and over	35	23.3
Education Status	Associate	3	2.0
	Bachelor's degree	128	85.3
	Master's degree	19	12.7
Professional Experience	1-10 years	60	40.0
	11-20 years	78	52.0
	21-30 years	12	8.0
Type of institution where the teachers work	Preschool	110	73.3
	Kindergarten	40	26.7
District of institutions where the teachers work	Keçiören	35	23.3
	Altındağ	12	8.0
	Çankaya	21	14.0
	Sincan	13	8.7
	Etimesgut	18	12.0
	Mamak	41	27.3
	Yenimahalle	10	6.7
Size of the class	1-10 children	15	10.0
	11-20 children	115	76.7
	21-30 children	20	13.3
The age group of the class	36-47 months	14	9.3
	48-59 months	42	28.0
	60-72 months	94	62.7
Total		150	100

Table 1 shows that 98.7% of the teachers are female. More than half of the teachers (52.7%) are aged 31-40. As for their experience, most of them (52%) have 11 to 20 years of experience, and only 8% have more than 20 years of experience. It is seen that 85.3% of the teachers have a bachelor's degree, while 12.7% have a master's degree. Moreover, 73.3% of the teachers work in independent preschools, and 26.7% work in kindergartens affiliated with public primary and secondary schools. The participating teachers were employed across various districts of Ankara, including Keçiören (23.3%), Mamak (27.3%), Çankaya (14.0%), Etimesgut (12.0%), Sincan (8.7%), Altındağ (8.0%), and Yenimahalle (6.7%). The size of the classes consisted of 1-10 children (10.0%), 11-20 children (76.7%), and 21-30 children (13.3%). Finally, the age groups of the children ranged from 36-47 months (9.3%), 48-59 months (28.0%), and 60-72 months (62.7%).

Data Collection Process

Aligned with the scope of the larger project, the data for this study were collected after acquiring the permissions of the Ethics Committee of the relevant university (decision dated 11/10/2021 numbered 09/30) and the permissions from the Provincial Directorate of National Education. Following the approval of research permit, the data collection and data analysis were conducted between January 2022 and January 2023, adhering to the principles of voluntariness and confidentiality.

Data Collection Instrument

SABR-2.2 was developed by Pentimonti *et al.* (2021) to examine the quality of book-reading processes in early childhood classrooms. The quality of the book reading sessions is determined by coding the teacher's extratextual talk. A storybook called Kingdom of Friends was also prepared by Pentimonti *et al.* (2021) to use the measurement tool. The instrument was developed based on data from 286 teachers and children aged 3 to 5 years and includes video-based coding of shared book-reading sessions. During its implementation, teachers were told to keep their normal book-reading time routine while being observed, and the process was videotaped. The talk and expressions of the teacher related to the text were recorded, and the reading process was encoded.

The basic behaviours in the measurement tool, which are considered to improve the language and literacy skills of young children, are coded using the frequency counting system. The tool contains 11 codes (Pentimonti *et al.*, 2021): Auxiliary-Fronted Question, Wh- Questions, Why Question, How Question, Repeat/Recast/Extend, Book/Print Conventions, Letter/Words/Writing, Cognition, Feelings/Emotions, Define/Elaborate on Vocabulary, Act Out/Pretend. Talk excluded from coding is as follows (Pentimonti *et al.*, 2021): Inaudible utterances, filler talk (mmm, uh), talk that references formalities (thank you), yes/no utterances, teacher praise, exact repetitions, and speaking in a language other than the language of instruction.

According to the analysis by Pentimonti *et al.* (2021), the item load values of the single-factor tool ranged from 0.41 to 0.86, and the inter-coder reliability values ranged from 0.95 to 0.99. It was stated that the internal consistency value of the tool, calculated by Cronbach's alpha coefficient, was 0.71. In addition, the concurrent validity of the tool with Early Literacy and Language Classroom Observation (ELLCO) was found to have a moderate relationship (rs = 0.31-0.50).

Adaptation Process

SABR-2.2 adaptation into Turkish was carried out in accordance with the theoretical and practical models and criteria outlined by Hambleton *et al.* (2005). Accordingly, the steps followed are listed below:

- Determining the need for adaptation

This study aimed to adapt SABR-2.2, developed by Pentimonti *et al.* (2021), to Turkish to evaluate the process of reading books together with children and teachers. The tool allows the researchers to observe the process of book reading and systematically examine teacher talk. It is believed that the adaptation of this tool will contribute to studies in preschool education in the context of Türkiye.

- Examining the cross-cultural equivalence of the trait of interest and deciding to adapt

The original research was analysed thoroughly in terms of its appropriateness for Turkish grammar and language; experts were consulted to identify the Turkish equivalents of the structures in English. The principal investigator of the original scale was informed and kept updated during the adaptation process.

- Obtaining the necessary permits

For the adaptation of the scale, the necessary permissions for the scale and materials (manual, forms, and storybook) were acquired from the principal researcher.

- Translating and its validation

The storybook Kingdom of Friends was translated into Turkish by three experts in the field of early childhood education and child development, who are proficient in both languages, familiar with the cultures studied, and have knowledge of the test structure and the measured structure. A language expert then reviewed the translated text. The images in the storybook are

left untouched and used as in the original. Afterwards, elements of the storybook (text, page harmony, visual structure, comprehensibility) were analysed by three early childhood educators. Two experts in the field of early childhood education translated the coding form, coding guide, and codes of the measurement tool into Turkish. After that, the translations were verified by an English language expert, and the Turkish draft manuals and forms were translated into English by three early childhood educators. All the draft documents were prepared for the expert panel. The online expert panel was held with the participation of three experts from each field: early childhood education, child development, and special education. They evaluated the compatibility between translated versions and the original tool based on four criteria (Borsa *et al.*, 2012): Semantic equivalence, idiomatic equivalence, experiential equivalence, and conceptual equivalence. Having incorporated the feedback and suggestions of the panel, and in line with the recommendations of the experts, the necessary points were reviewed with the English and Turkish language experts, and modifications were made.

- Defining scaling and scoring formats

The coding key was decided to be used, in which the 11 codes in the measurement tool are provided, as stated in the original form.

- Determining the sample and the trial plan

For the adaptation of the measurement tool, data collection was planned through video recordings of reading sessions conducted in classrooms with children aged 36 to 72 months. It was aimed to reach 150 preschool teachers, who voluntarily agreed to participate in the research, working in preschools and kindergartens representing various socio-economic levels and age groups.

- Conducting the pilot implementation

After the storybook Kingdom of Friends was translated into Turkish, the reading processes of five preschool teachers (in classes with 3, 4, and 5-year-old children) were videotaped, and a pilot implementation was carried out. During the panel of researchers, pilot video recordings were viewed, and the "Classroom Visit and Teacher Observation Guide" developed by the researchers in the original study of the scale was finalized for adaptation. After organizing the forms and materials of the measurement tool, the researchers and main coders trained research assistants about SABR-2.2 coding in two separate 4-hour sessions.

In the first session, measurement tools and materials were introduced. During training sessions, the codes in the tool were explained, relevant examples were illustrated, and the coding process of a sample video was demonstrated step by step. The coders attended the second session with the coded forms. Feedback was provided for the video, and the form coding process was discussed. After the encoder training, a round of new coding was carried out to see reliability among coders, and the reliability ratio between coders was found to be between .80 and .93. The guide prepared by Pentimonti *et al.* (2021) states that a ratio greater than .80 suffices to start the coding process by assigning individual videos to the coders. Hence, pilot applications were initiated after this process.

- Conducting validity and reliability analysis

150 book-reading videos were recorded during the data collection process, which were coded by coders and then processed into the data sets. After the detailed analysis, the form was finalized for use.

Data Analysis

Exploratory and confirmatory factor analyses were used to verify if SABR-2.2 is a valid construct and if all 11 items can be put together in a one-dimensional way. For validity considerations of the estimations, the data were split into two pairs randomly, and EFA and CFA were conducted on the separate datasets. For EFA, principal component analysis was conducted with the row covariance matrix. For the CFA, parameter estimates were obtained

using the conventional maximum likelihood method, with convergence achieved after 97 iterations. The limited number of statistical modifications between the error terms of the manifest variables was considered to improve the model accuracy. In addition, reliability and item discrimination analyses were conducted to determine internal consistency. Before the analysis, the distributions and descriptive statistics of the data for 11 items were examined. Monotonically decreasing distributions in each item peaks in the frequencies in the ranges of 0-5 and 5-10, and accordingly, partially right-skewed distributions were observed. Therefore, outliers based on Mahalanobis distances were removed from the dataset. 18 observations with high Mahalanobis distance values were determined and removed from the dataset. In these observations, teachers were observed to perform significantly more than other teachers in SABR-2.2 items. These teachers' performance seems much higher in reading activities than the group in general. With the effect of this highly performing group, the data was observed to be right-skewed. Subsequent analyses were conducted after excluding the data from these 18 teachers. All statistical analyses were conducted using the R language (R Core Team, 2024) and some R packages: "psych" (Revelle, 2025), "lavaan" (Rosseel, 2012), and "semPlot" (Epskamp, 2022).

RESULTS

Construct Validity

The sample size is found sufficient for exploratory factor analysis (EFA) (KMO = .77), and multiple correlations between variables are significant (χ^2 = 651.99, df = 10 and p < .01). (Kalaycı, 2006). Figure 1 illustrates Eigenvalues according to the number of factors.

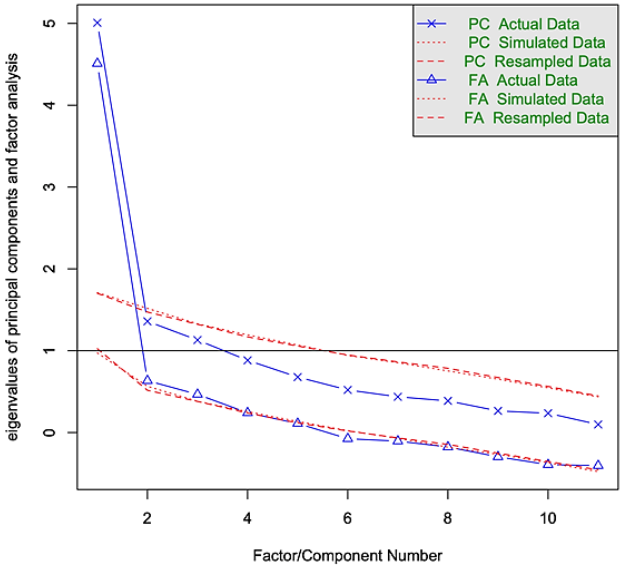


Figure 1. *Eigenvalues by number of factors.*

Figure 1 shows that Cattel's slope deposit graph, Kaiser-Harris criterion, and Horn's parallel analysis results support the one-factor and one-dimensional structure. Table 2 and Table 3 presents EFA Results for SABR-2.2 Main Application Data.

As seen in Table 3, factor loads for 11 items of SABR-2.2 are in the range of .40-.83. These 11 items provide a total of 46% of the explained variance and are structured one-dimensionally. This one-dimensional structure, indicated by the EFA results, was examined in terms of model-data fit level by confirmatory factor analysis (CFA). Just six statistical modifications between the error terms of some manifests were considered to provide a better model-data fit. This is a common and recommended statistical justification for making the model better fitted (Jöreskog *et al.*, 2016). According to the CFA results, all paths in the model are statistically significant. Standardized error variance values are found to be below .90. The goodness of fit indices for the model are given in Table 4.

Table 2. *EFA results (correlation matrix).*

	cr1	cr2	cr3	cr4	cr5	cr6	cr7	cr8	cr9	cr10	cr11
cr1	1.00	.61	.24	.46	.57	.18	.51	.61	.76	.33	.48
cr2	.61	1.00	.36	.64	.70	.22	.38	.57	.55	.49	.29
cr3	.24	.36	1.00	.51	.38	.19	.14	.46	.43	.23	-.13
cr4	.46	.64	.51	1.00	.67	.23	.33	.51	.59	.33	.16
cr5	.57	.70	.38	.67	1.00	.38	.39	.47	.59	.52	.22
cr6	.18	.22	.19	.23	.38	1.00	.38	.10	.34	.29	.12
cr7	.51	.38	.14	.33	.39	.38	1.00	.41	.36	.40	.37
cr8	.61	.57	.46	.51	.47	.10	.41	1.00	.48	.24	.28
cr9	.76	.55	.43	.59	.59	.34	.36	.48	1.00	.13	.18
cr10	.33	.49	.23	.33	.52	.29	.40	.24	.13	1.00	.17
cr11	.48	.29	-.13	.16	.22	.12	.37	.28	.18	.17	1.00

Table 3. *EFA results (factor loadings, error variances, and variances explained).*

Item	Factor1	Error Variance	Variance Explained
1	.81	.65	.35
2	.82	.68	.32
3	.52	.28	.72
4	.77	.59	.41
5	.83	.68	.32
6	.42	.18	.85
7	.62	.38	.62
8	.72	.52	.48
9	.77	.59	.41
10	.55	.30	.70
11	.40	.16	.84
Factor Eigenvalue	5.01		
Total Explained Variance (%)	46.00		

Table 4 displays that the goodness of fit indices for the factor structure of SABR-2.2 indicate an acceptable and high level of model-data fit. According to Hoelter's critical sample size index (CN), the sample size is acceptable (Hoelter, 1983). This index indirectly suggests that higher goodness-of-fit values can be achieved in a larger sample. Therefore, these values in Table 4 can be evaluated as a lower limit, and it can be concluded that the model presents construct validity.

Table 4. *The goodness of fit statistics for the SABR-2.2 main implementation.*

Index	Value	Level
χ^2 / *df*	1.4342	Very high*
CFI	.95	Very high**
GFI	.87	Acceptable**
NNFI	.92	High**
TLI	.92	High**
RMSEA	.080 (90%CI: [.00, .12])	Acceptable***
SRMR	.090	Acceptable***
CN (%99)	78.04	Acceptable

Note for references. * Kline (2005); ** Tabachnick & Fidell (2013); *** Jöreskog & Sörbom (1993).

Figure 2 demonstrates that all of the items are significantly related to the one-dimensional structure of the scale. Standard path coefficients range from .23 to .97. Items 2 contribute to the model at a relatively higher level than other items. Items 6, 11, and 7 are relatively lower predictive items.

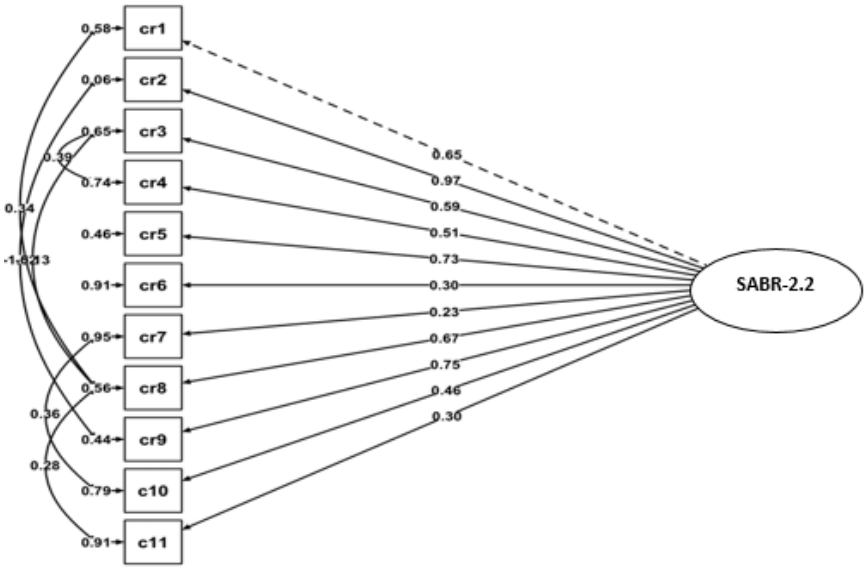


Figure 2. *Structural model for SABR-2.2 based on CFA results (Standardized path coefficients).*

Internal Consistency

Based on the main implementation data, the reliability level of SABR-2.2 in terms of internal consistency was examined by calculating Cronbach's α coefficient. Accordingly, the raw α value for 11 items of SABR-2.2 was obtained as .81, and the standardized α value as .86. Corresponding to the Feldt coefficients, the 95% confidence interval limits are found as .77 and .86. In addition, how the α coefficients change when neglected for each item was investigated. It was observed that the α coefficient remained at .77 and above in all items and that any isolated item did not seriously affect the level of internal consistency.

Cronbach's α coefficient is known to have rigid assumptions, requiring assumptions of one-dimensionality and normal distribution. Violations within this scope may lead to an underestimation of the internal consistency level. Therefore, the α coefficient can be considered as a lower limit for reliability in terms of internal consistency. An internal consistency coefficient that is more robust to such potential risks and assumption violations is McDonald's ω. This coefficient was also calculated using the main implementation data for SABR-2.2 and was found to be ω = .90 for the unidimensional structure.

Finally, "item cluster analysis (ICA)" was conducted to examine internal consistency. This analysis considers both Cronbach's α coefficient and the split-half reliability coefficient. The results of the item clustering analysis for SABR-2.2 items are displayed in Figure 3.

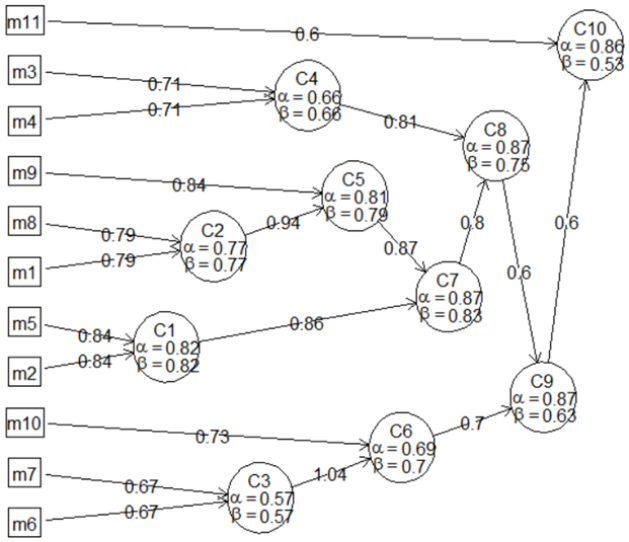


Figure 3. *Item cluster analysis results for SABR-2.2 items.*

Figure 3 shows that the internal consistency coefficients of α obtained with ICA stay above .60 for both items and item clusters and all 11 items. The majority values remain above .80 while total α obtained by ICA in SABR-2.2 is .86, and the predictive coefficient of the coefficient value of the split-half test reliability value is β = .53. All in all, these values indicate a high level of internal consistency.

Discriminative Validity

Using the data from the main implementation, the lower-upper group discrimination level of SABR-2.2 was explored. To this end, first of all, it was necessary to obtain the total scores of SABR-2.2 and then to define the lower and upper groups on the basis of these values. The total scores of SABR-2.2 were collected as standardized integrated scores through the EFA model established in construct validity studies. These total scores range from -1.25 to 3.30 without any serious distortion. However, considering non-parametric techniques in hypothesis testing seems to be a safer method. SABR-2.2 total scores, obtained in the form of standard total scores, were deducted from the median value, and lower and upper groups were defined. Accordingly, 68 observations in the lower group and 69 observations in the upper group were identified.

Table 5. *Significance of differences between lower and upper groups according to SABR-2.2 standardized total scores.*

Group	*n*	*Mdn*	Student's *t*	*df*	*p*	Welsch' *t*	Wilcoxon's *W*
Lower	68	-.71	-13.069	135	.000	-13.143	0
Upper	69	.70					

As seen in Table 5, according to the results of Student's *t*-test as a parametric test, Welsch's *t*-test- a robust alternative-, and Wilcoxon's non-parametric test based on the sum of the ranks, SABR-2.2 total scores vary significantly between the lower and upper groups. The effect size of this significant difference was calculated at τ^2 = .5585, indicating a high level of effect between the groups.

Evaluation of SABR-2.2 Scores

In the application of SABR-2.2. frequency values are measured for each of the 11 items. The lower limit of these values is 0, and the upper limit is theoretically infinite. The correlation between the standardized scores from EFA and the raw total scores from SABR-2.2 items was calculated. Accordingly, Pearson product-moment correlation coefficient was determined as .975 and Spearman's rank differences correlation coefficient as .977 between raw total scores

and standardized total scores. Consequently, it has been decided that when there is a need to use total points for SABR-2.2, the sum of the raw material points can be used directly. If the total scores obtained in this way are high, it indicates that the feature measured by SABR-2.2 is high, while the opposite is low.

In the original study, researchers provided an Excel spreadsheet that allowed users to enter item scores and automatically generated scaled total scores. A similar spreadsheet was prepared in this study. It is mainly based on standardized coefficients obtained from the exploratory factor analysis conducted in this study. This spreadsheet is available upon request by the author/authors.

DISCUSSION and CONCLUSION

The 11-item, one-dimensional original version of SABR-2.2 developed by Pentimonti *et al.* (2021) was adapted to Turkish in this study. Throughout the adaptation process, the scale's factor structure was examined through exploratory and confirmatory factor analyses to establish construct validity, and the single-factor structure of the original scale was retained. In EFA, the 11 items accounted for 46% of the total variance, and the scale exhibited a unidimensional structure. The explained variance of 46% meets the criterion of 30% or more recommended in the related literature. In addition, the factor loads of the items above .40 comply with the lower limit recommended in the literature (Tabachnick & Fidell, 2013). In CFA, conducted to examine the confirmation of the original structure of the scale, goodness of fit indices χ^2 / df = 1.43, CFI = .95, TLI = .92 values showed very high fit, while RMSEA = .080, GFI = .87, NNFI = .92, and SRMR = .090 presented that an acceptable fit level was achieved (Jöreskog & Sörbom, 1993; Tabachnick & Fidell, 2013). According to these results, the construct validity of SABR-2.2 is ensured.

In the reliability analyses performed during the adaptation process, Cronbach's α internal consistency coefficient was first calculated, with the raw α value of .81 and the standardized α value of .86. In addition, McDonald's coefficient ω was calculated and found as ω = .90 for the one-dimensional structure. As a part of reliability analysis, "item cluster analysis" was performed, and the α values were seen above .80 for the majority of the items and .86 for the overall scale. These values indicate the high internal consistency of SABR-2.2 (DeVellis, 2012/2017). In the original study, Cronbach's α internal consistency coefficient was reported as .71 (Pentimonti *et al.*, 2021).

Three types of tests were used to look at the lower-upper group discrimination level of SABR 2.2: the Student's *t*-test, Welsch's *t*-test, and Wilcoxon's non-parametric test based on ordinal sums. The results show a significant and high difference between the lower and upper groups. Accordingly, SABR-2.2 total scores can be said to have a high level of discrimination. The correlation between the raw total scores from SABR-2.2 items and the standard total scores derived from EFA was .97, indicating an excellent correlation (Cohen, 1988; Pallant, 2020). High scores indicate high levels of the feature measured by SABR-2.2, while low scores indicate low levels.

When factor loadings in the original scale development study at two different times (Pentimonti *et al.*, 2021) and values obtained in the adaptation study to Turkish are compared, the findings suggest that the underlying factor structure of the original scale was preserved. For example, Repeat/Recast/Extend (.83 vs .85/.87), Cognition (.72 vs .74/.74), and Feelings/Emotions (.77 vs .76/.72) items have high factor loadings in two cultures. This supports the cross-cultural conceptual equivalence of the scale's theoretical framework. However, some items differ in ways that appear to reflect the cultural context. When comparing the loadings of the original study, structured question types have higher factor loadings (Auxiliary-Fronted: .81; How Question: .77) than the original study (.66/.66; .57/.62). Similarly, Letters/Words/Writing items show a higher factor loading (.62) in the Turkish adaptation study. This differs from the values

of the original study (.43/.34). This suggests that these items may be more related to the structure in the Turkish context.

In the national context, the book-reading process has been evaluated using instruments such as the *Dialogic Reading Behaviours Checklist* (Ergül *et al.*, 2015) and the *Read Aloud Teacher Assessment Form* (Deniz, 2018). Moreover, the *Systematic Assessment of Book Reading* (Tepetaş-Cengiz, 2015) was adapted to Turkish to evaluate teachers' book-reading practices. One of these tools, *Parent-Child Shared Book Reading Inventory*, originally developed by Cutler (2020), is used for evaluating the shared book reading process between parents and children. The tool, consisting of 39 items, was adapted to Turkish culture by Tepetaş-Cengiz and Erol (2021). Compared to SABR-2.2, the application method and target groups (parent-child) of the tool differ. Although this tool focuses on parents' literacy activities at home, SABR-2.2 evaluates the shared book reading process between teachers and children. SABR-2.2 is a tool that includes an evaluation conducted through video coding and focuses on teachers' extratextual talks.

Adapted SABR-2.2. offers a detailed account of the nature of the book reading process and makes a substantial contribution to both research and practice. SABR-2.2 enables research to focus on the nature of the book reading process and its relationships with a range of variables (early literacy skills, classroom interaction quality, literacy environment, etc.). Moreover, it provides a standardized measurement tool for comparative studies. SABR-2.2 is a functional observation and feedback tool that allows for evaluating book-reading classroom activities of early childhood teachers in a structured way. Based on the data obtained from the tool, feedback about teachers' strengths and areas for development can be provided, thus, the professional development of teachers can be supported. In addition to this, in light of the collected data, preventive and interventionist programs can be developed to improve the quality of the book-reading process. By using SABR-2.2 video coding, teachers can identify which skills they may emphasize during book reading to support early literacy development. In this regard, the adapted instrument is considered not only an assessment tool but also a guide for improving the quality of practices that support language and early literacy development in the early years.

The findings of the study indicated that the Turkish version of SABR-2.2 is a valid and reliable instrument. However, the results of the study should be evaluated in light of the methodological and contextual limitations. This study is a cross-sectional study. Future studies could use a longitudinal design and investigate the consistency over time. SABR-2.2 can also be used for assessing the effects of professional development programs through pre/post-test administrations. In the current study, the data were collected solely based on SABR-2.2. In future studies, the researchers can collect data from the quality of classroom interaction scales and early literacy scales, as well as qualitative observations. By focusing on teachers' meaning/literacy-related talk, children's responses, and early literacy skills, future studies can investigate the relationships between SABR-2.2 scores and developmental outcomes.

All in all, the analyses show the feasibility of the 11-item version of SABR-2.2 to be applied validly and reliably in the evaluation of book-reading activities carried out by preschool teachers for children in their classrooms. SABR-2.2 focuses on teacher talk related to meaning-making and early literacy skills as instructional content within extratextual conversations during book-reading activities, thereby serving as an important tool for evaluating these instructional processes. Through the adaptation conducted in this study, a reliable and practical instrument has been made available for use in the national context, while also offering a meaningful contribution to international comparative research.

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Declaration of Conflicting Interests and Ethics

The authors declare no conflict of interest. This research study complies with research publishing ethics. The scientific and legal responsibility for manuscripts published in IJATE belongs to the authors. **Ethics Committee Number**: Ankara University, 11/10/2021-09/30.

Data Availability Statement

Due to the nature of the data and participants' consent, the data are not publicly available for privacy and ethical considerations.

Informed Consent

Written informed consent was obtained from the participants who participated in this study.

Contribution of Authors

F.Ş.: Conceptualization, Methodology, Validation, and Writing-review and editing. **G.K.B.:** Conceptualization, Methodology, Validation, and Writing- review and editing. **N.T.:** Conceptualization, Methodology, Data Collection, and Writing-review and editing. **A.Y.:** Conceptualization, Methodology, Validation, and Writing-review and editing. **E.D.:** Methodology, Software, Data Analysis, Validation, Writing-review and editing. **E.K.K.:** Data Collection, Writing-review and editing. **T.B.:** Data Collection, Writing-review and editing.

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