Development of the "Social Studies Course Engagement Scale" for Elementary School Students[*]

Ebru Ocakçı[**]   **Osman Samancı**[***]

Abstract

In this study, it is aimed to develop the "Social Studies Course Engagement Scale" to be used for 4th grade elementary school students. Despite the critical importance of the engagement for the social studies course, no engagement scales developed specifically for the social studies course were found in the literature. A total of 730 4th grade elementary school students were included in the development of the scale. As a result of "exploratory factor analysis", a scale structure consisting of 12 items and 2 sub-dimensions was created. It was determined that the created structure explained a total variance of 51.62%. The first dimension of the scale, individual engagement, helped explain 39.90% of the total variance, while the second dimension, interaction engagement assisted in clarifying 11.72% of the total variance. As a result of "confirmatory factor analysis", it was determined that the structure of the scale was adequate. The reliability of the scale was analyzed using "Cronbach's Alpha", "McDonald's Omega" and test-retest reliability coefficients were used. Both "Cronbach's Alpha" and "McDonald's Omega" coefficients were calculated as 0.81. Test-retest reliability coefficient was calculated as 0.72. It was determined that the "Social Studies Course Engagement Scale" is a reliable and valid measurement tool.

Keywords: Social studies, course engagement, scale development, elementary education.

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İlkokul Öğrencileri için
"Sosyal Bilgiler Dersine Katılım Ölçeği"nin Geliştirilmesi[*]

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Öz

Bu araştırmada ilkokul 4. sınıf öğrencileri için kullanılmak üzere "Sosyal Bilgiler Dersine Katılım Ölçeği"nin geliştirilmesi amaçlanmıştır. Katılımın Sosyal Bilgiler dersi için kritik bir öneme sahip olmasına rağmen alanyazında Sosyal Bilgiler özelinde geliştirilen bir katılım ölçeğine rastlanmamıştır. Ölçek geliştirme sürecinde toplam 730 ilkokul 4. sınıf öğrencisiyle çalışılmıştır. Açımlayıcı faktör analizi sonucunda 12 madde ve 2 alt boyuttan oluşan bir yapı elde edilmiştir. Elde edilen yapının toplam %51.62 varyans açıkladığı belirlenmiştir. Açıklanan varyansta ölçeğin birinci boyutu olan bireysel katılım yapıya %39.90 katkı sağlarken; ikinci boyutu olan etkileşimli katılım yapıya %11.72 katkı sağlamıştır. Yapılan doğrulayıcı faktör analizi sonucunda ölçeğin 12 madde ve 2 alt boyuttan oluşan yapısının oldukça iyi uyum verdiği belirlenmiştir. Ölçeğin güvenirliğinin incelenmesinde "Cronbach's Alpha", "McDonald's Omega" katsayılarından ve test-tekrar test güvenirliğinden yararlanılmıştır. Hem "Cronbach's Alpha" hem de "McDonald's Omega" katsayısı .81 olarak hesaplanmıştır. Test-tekrar test güvenirlik katsayısının ise .72 olduğu tespit edilmiştir. Analiz sonucunda "Sosyal Bilgiler Dersine Katılım Ölçeği"nin güvenilir ve geçerli bir ölçme aracı olduğu değerlendirilmiştir.

Anahtar Sözcükler: Sosyal bilgiler, derse katılım, ölçek geliştirme, ilkokul.

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Introduction

Course engagement refers to a psychological process that involves attention and effort towards learning (Marks, 2000). Mazer (2012) highlights students' interest as one of the factors that encourage engagement and argues that cognitive and affective interest allows students to be more involved with their own education. Students' interest and their active efforts encourage them to participate more regularly with the course. In turn, this positively affects a number of variables related to the learning process. Prior research has shown the effect of course engagement on individuals' learning performance and academic achievements (Fung et al., 2018; Jiang & Peng, 2023; Maamin et al., 2022; Parsons & Taylor, 2011; Phan et al., 2016; Putwain et al., 2018; Putwain et al., 2019; Putwain & Wood, 2023). It is also argued that one of the most important predictors of adjustment to school life is engagement (Cobo-Rendon et al., 2022). Furthermore, former studies have also indicated that course engagement is correlated with other variables such as students' motivation (Froment & Gutierrez, 2022; Singh et al., 2022; Zhang et al., 2023), critical thinking (Ravandpour, 2022; Riswanto, 2022), satisfaction (Froment & Gutierrez, 2022), autonomy (Ravandpour, 2022), and self-assessment (Riswanto, 2022).

For teaching to be effective, it is necessary to determine students' levels of course engagement and to work on increasing it wherever necessary. However, observations made in the learning environment may be misleading in determining students' course engagement (Fuller et al., 2018). This is because course engagement notinvolves behaviors that can be observed during the teaching process such as raising one's hand alone (Handelsman, 2005), participating in class discussions (Mazer, 2012; Wang et al., 2014), taking notes (Lin & Huang, 2018), as well as behaviors that cannot be observed during the teaching process such as doing homework (Handelsman, 2005), repeating course notes (Lin & Huang, 2018; Mazer, 2012), and being interested in course subjects after the course takes place (Mazer, 2012). Hence, Fredricks and McColskey (2012) argue that self-report instruments can be used to detect engagement behaviors that cannot be directly observed. This is why developing reliable and valid measurement tools for this purpose would is crucial to an accurate assessment.

Scope of Course Engagement

The literature includes various classifications of the term "engagement" (Parsons & Taylor, 2011), of which the one made by Fredricks et al. (2004) is quite widely accepted. According to Fredricks et al. (2004), the classification of engagement encompasses three dimensions: emotional, behavioral, and cognitive. "Emotional engagement" pertains to the affective responses of students in the classroom, including feelings of interest, happiness, anxiety, or boredom. (Fredricks et al., 2004; Handelsman et al., 2005). "Behavioral engagement" involves observable behaviors such as following classroom rules, engaging in the learning process and academic tasks, paying attention and effort to learning, asking questions and participating in classroom discussions (Fredricks et al., 2004; Lin & Huang, 2018; Wang et al., 2014). "Cognitive engagement" is the third dimension, and it is the most difficult to observe. Cognitive engagement entails the psychological engagement of students, and includes the utilization of different course materials, reviewing topics that they did not understand, or trying to pinpoint the source of their mistakes (Fredricks et al., 2004; Wang et al., 2014). Mameli and Passini (2017) have analyzed course engagement in four sub-dimensions, adding the dimension of "agentic engagement" to the classification made by Fredricks et al. (2004). Agentic engagement refers to questions that asked by students during the lesson, and their opinions and feedback regarding the learning process (Reeve & Tseng, 2011). Deng et al. (2020) and Wang et al. (2016) offered an alternate fourth dimension, "social engagement", to the three-dimension classification of engagement, which consists of cognitive, affective, psychomotor engagement. Social engagement refers to students' social interactions related to the teaching content and their emotional reactions towards their peers (Wang et al., 2016).

Social Studies Course Engagement

The aim of social studies courses is to educate individuals to become current and functioning citizens who benefit both their own societies and humanity as a whole (National Council of the Social Studies [NCSS], 2010). It is the responsibility of the social studies course to educate students to be engaged citizens with the competence to make wise decisions (Farris, 2015; Thomas, 2022). Students' ability to transform into such citizens is closely correlated to the active engagement they show throughout the learning process. This is why course engagement is such a critical variable that needs more research. Research on social studies courses included in the literature examines the engagement variable through various data collection tools. There are a number of studies that utilize qualitative data collection tools such as observation and interview forms (Parsons, 2018; Saripudin et al., 2021), as well as quantitative self-report data collection instruments (Gürer & Yildirim, 2014; Schmitt, 2022; Saritepeci & Cakir, 2015). When the behaviors involved in engagement that cannot be directly observed are considered, it is thought that the self-report instruments can help illustrate what is going on behind the scenes (Fuller et al., 2018). One limitation worth noting in the existing literature is the absence of a specific engagement scale designed for the social studies course.

Measurement Tools for Course Engagement

The literature includes various measurement tools that have been developed to measure the variable of course engagement. The current research examined the ones included in the literature before the Social Studies Course Engagement Scale (SSCES) was developed (Deng vd., 2020; Finn vd., 1991; Handelsman vd., 2005; Kim and Song, 2023; Lin and Huang, 2018; Mazer, 2012; Siddiqi vd., 2022; Singh and Srivastava, 2014; Vongkulluksn vd., 2022; Wang vd., 2014; Wang vd., 2016).

According to the data presented in Figure 1, it is noteworthy that the scales aimed at elementary school students are limited in number compared to other learning levels. Further, it was observed that nearly all of the scales presented in Figure 1 were developed to examine general course engagement behaviors, while only the scale developed by Wang et al. (2016) considered engagement in "mathematics" and "science" courses. Students' engagement behaviors may differ between each lesson (Wang et al., 2014). Thus, it would be more appropriate to examine the engagement variable specifically for each course and to use items specific to the course at hand in scales to be developed (Wang et al., 2016). Considering the cognitive characteristics of elementary school students, it is thought that utilizing course-specific engagement scales in research would prevent students from experiencing confusion and reflecting their general engagement to a course-specific measurement process.

Despite the critical importance of the engagement for the social studies course and the fact that it is one of the prominent variables in the research in this field (Gürer & Yıldırım, 2014; Parsons et al., 2018; Saripudin et al., 2021; Saritepeci & Çakır, 2015; Schmitt et al., 2022), no engagement scales developed specifically for the social studies course were found in the literature. It is thought that this demonstrates a gap in the literature, and that there is a need for a measurement tool to address engagement in the context of the social studies course. The objective of this study was to create a dedicated engagement scale tailored specifically for the social studies course and evaluate its psychometric properties.

Researcher	Scale	Participants	Sub-Dimensions of Engagement
Finn et al. (1991)	The Student Participation Questionnaire	4th grade students	1. Effort 2. Initiative 3. Non-participatory behavior
Handelsman et al. (2005)	Student Course Engagement Questionnaire	Undergraduate students	1. Skills engagement 2. Emotional engagement 3. Participation/Interaction engagement 4. Performance engagement
Mazer (2012)	Student Engagement Scale	Undergraduate students	1. Silent in class behaviors 2. Oral in class behaviors 3. Thinking about course content 4. Out of class behaviors
Wang et al. (2014)	The Classroom Engagement Inventory	4th-12th grade students	1. Affective Engagement 2. Behavioral Engagement 3. Cognitive Engagement 4. Disengagement
Singh and Srivastava (2014)	Student Engagement Scale	Postgraduate students	1. Sense of belonging 2. Individual engagement 3. Collaborative engagement 4. Management skill
Lin and Huang (2018)	Student Course Engagement Scale	Undergraduate students	1. Skills engagement 2. Emotional engagement 3. Performance engagement 4. Interaction engagement 5. Attitude engagement
Wang et al. (2016)	Student and Teacher Report Math and Science Engagement Scales	Middle school and high school	1. Cognitive engagement 2. Behavioral engagement 3. Emotional engagement 4. Social engagement
Deng et al. (2020)	MOOC Engagement Scale	Unspecified	1. Cognitive engagement 2. Behavioral engagement 3. Emotional engagement 4. Social engagement
Siddiqi et al. (2022)	Student Engagement Scale	Undergraduate students	1. Class atmosphere 2. Facilities provided in the campus 3. Course work 4. Identical social stata within the classroom 5. Personality and competence of teacher 6. Policies applied within the classroom
Vongkulluksn et al. (2022)	Cognitive Engagement with Technology	9th to 12th grade students	1. Retrieving 2. Processing 3. Generating
Kim and Song (2023)	Agentic Engagement Scale	Unspecified	1. Agentic support requests 2. Agentic learning strategies 3. Agentic learning construction

Figure 1. *Measurement Tools for Course Engagement*

<div align="center">**Method**</div>

Research Model

This study on the development of the SSCES for 4th grade students was conducted through a survey design. The main purpose of this design is to examine the characteristics, attitudes, beliefs, behaviors, and thoughts of a particular community (Gay et al., 2012). Research based on the survey design can be conducted cross-sectionally or longitudinally (Fraenkel et al., 2012). In the present study, a cross-sectional survey design was used and data from different study groups was collected at various stages of the scale development process. The research was carried out within the scope of the TUBİTAK project carried out between December 1, 2020, and December 1, 2021. Data collection studies of the research were completed in 2021.

Participants

A total of 730 4th grade students were included in the development of the SSCES. Schumacker and Lomax (2004) discussed in their study the importance of conducting "exploratory factor analysis" (EFA) and "confirmatory factor analysis" (CFA) with various data sets during scale development processes. In the current study, data were collected from four different study groups. Respectively 50 students for the pilot application, 419 students for the EFA, 210 students for the CFA, and 51 students for the reliability analysis. Detailed information about the study groups is presented in Figure 2.
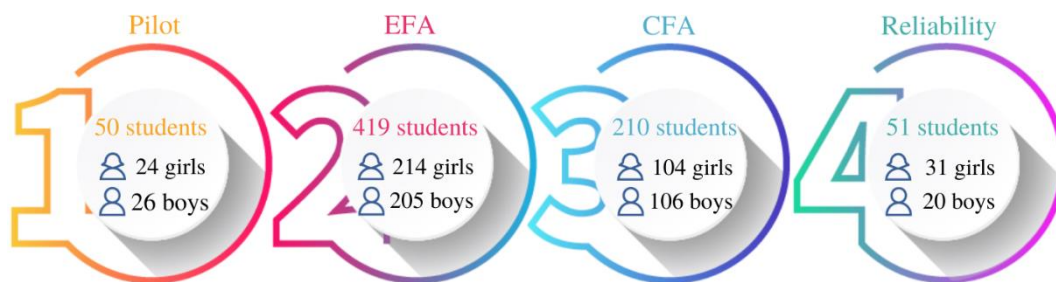

Figure 2. *Distribution of Study Groups*

It has been argued that scale development processes that include 100 participants have poor adequacy, ones that include 200 participants have fair adequacy, ones that include 300 participants have good adequacy, ones that include 500 participants have very good adequacy, and ones that include 1000 or more participants have excellent adequacy (Comrey & Lee, 1992; Field, 2009). The fact that this study included 730 elementary school students indicates that adequacy is very good.

Scale Development Process

The scale development steps recommended by Develis (2012), and Carpenter (2018) were adopted during the development of the SSCES. Taking into account the eight steps proposed by DeVellis (2012) and the ten steps proposed by Carpenter (2018), the following work was carried out in the scale development process:

Generate an item pool

Before creating the item pool for the SSCES during the scale development process, a literature review was conducted first as recommended (Carpenter, 2018; DeVellis, 2012). In accordance with the information obtained through the review, behaviors that indicate course engagement were identified. In addition, course engagement scales included in the literature were also examined, and scale items created by Handelsmans et al. (2005), Mazer (2012), Wang et al. (2014), Lin and Huang (2018) were utilized in the pool of items. Information regarding the scales and the scale items used are presented in Figure 3.
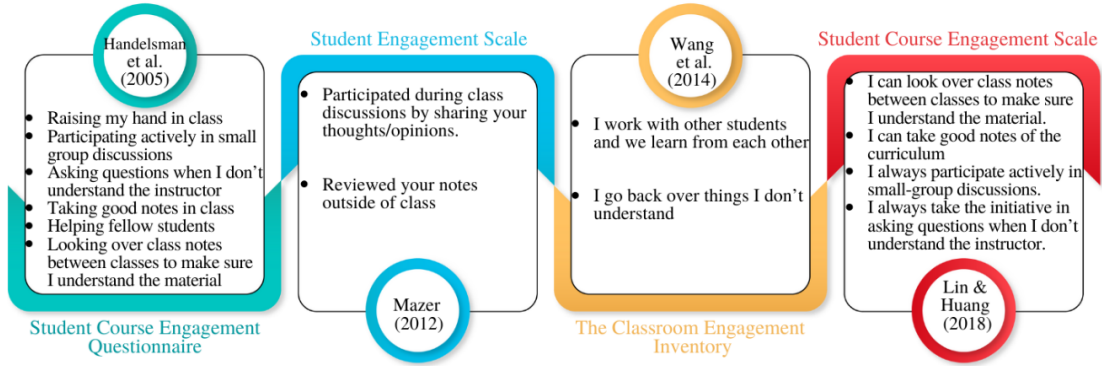
Figure 3. *Scales Used in the Creation of the Item Pool*

The scale items presented in Figure 3 were translated into Turkish and simplified to cater to the comprehension level of elementary school students. Subsequently items were rearranged to assess social studies course engagement. In order to establish the highest level of credibility the item pool created was presented to four field experts for their opinions (Carpenter, 2018; DeVellis, 2012). In line with the opinions received from field experts, new items were added to the item pool and existing items were rearranged. The process elicited an item pool consisting of a total of 40 items. The final version of the SSCES had a structure of 12 items. In this context, it is thought that the item pool of 40 items was of sufficient size (Carpenter, 2018).

Determine the format for measurement

Results of studies conducted with young age groups, it was observed that Likert-type scales made more reliable and valid measurements (İlhan et al., 2022), and that students had an easier time filling them out, tending to prefer them to alternative methods (Van Laerhoven et al., 2004). These were the reasons why a Likert-type structure was chosen for the SSCES. Considering the cognitive and affective characteristics of 4th grade students, a 4-point Likert type was created (Alan & Atalay-Kabasakal, 2020). Mellor and Moore (2014) determined that word-based Likert-type scales have higher fit compared to numeric Likert-type scales in measurements of characteristics of young age groups. For this reason, the scale was structured to contain word-based answers instead of numeric answers (Always, Often, Sometimes, Never).

Pilot application

According to Carpenter (2018), it is recommended to conduct a pilot study with a study group comprising 50-100 participants as part of the scale development process, in order to perform an initial EFA. In this study, the draft version of the SSCES consisting of 40 items was administered to a pilot group consisting of 50 4th grade students. Following the pilot application, the internal consistency coefficient of the item pool was found to be 0.89. Four items with item total correlation coefficients below 0.20 were eliminated from the item pool, while seven items with item total correlation coefficients ranging from 0.20 to 0.30 were reviewed by field experts for feedback. The seven relevant items were revised based on the input received from the field experts. After reorganizing the item pool, the factor analysis values were calculated for the remaining 36 items for preliminary assessment.

Structural validity and reliability analysis

To assess the structural validity of the scale, an EFA was conducted using the dataset obtained from the students, utilizing the SPSS package program. The EFA resulted in the creation of a scale structure consisting of 12 items and two sub-dimensions. To evaluate the model fit of the obtained structure, CFA was employed using the AMOS package program, based on data obtained from 210 4th-grade students. "Cronbach's Alpha", "McDonald's Omega" internal consistency coefficients, and test-retest reliability were utilized to assess the reliability of the SSCES. These analyses were made via SPSS package program with the data set obtained from 50 4th grade students.

Data Analysis

EFA and CFA were conducted to examine the structural validity of the SSCES. KMO and Bartlett tests were used to determine the suitability of the data set for EFA. The Promax oblique rotation technique was used in the factor analysis. According to Tabachnick and Fidell (2013), the Promax oblique rotation technique can be utilized in scale structures where the sub-dimensions are related to each other. It was ensured that the eigenvalues of the items in the scale were at least 1.00, the item factor loads were at least 0.32, and the item-total correlation coefficients were at least 0.30 (Field, 2009; Tabachnick & Fidell, 2013).

"Chi-Square Goodness of Fit Test", "Comparative Fit Index", "Tucker Lewis Index", "Incremental Fit Index", "Root Mean Square Error of Approximation", "Goodness of Fit Index", "Root Mean Square Error of Approximation", "Goodness of Fit Index", "Adjusted Goodness of Fit Index", "Root Mean Square Residual" and "Standardized Root Mean Square Residual" fit indices were used in the CFA. "Pearson Product-Moment Correlation Coefficient" was used to examine the relationship between the sub-dimensions of the scale.

While "Cronbach's Alpha" coefficient has commonly been utilized in reliability analyses, Hayes and Coutts (2020) have recommended the use of "McDonald's Omega" coefficient as an alternative. Therefore, both "Cronbach's Alpha" and "McDonald's Omega" internal consistency coefficients were employed in this study to assess the reliability of the SSCES. Four weeks after the data collection for reliability analyses, the test-retest reliability was examined by collecting data from the same study group again.

Ethical Procedures

Ethical Procedures Ethical Committee consent for current research was obtained from the Ethics Committee of Atatürk University Educational Sciences (Num:06; Date: 19.03.2020).

Results

Exploratory Factor Analysis Results

The EFA of the SSCES was conducted with the data obtained from 419 4th grade students. As a result, the KMO value was calculated as 0.924 and it was determined that the Bartlett test results were significant ($\chi2=5341.608$, $p=0.00$). Sample size was decided to be adequate, so the analysis was initiated (Field, 2009; Pallant, 2015). The items that had insufficient factor load values or convergent structures with different factors were identified and removed from the scale. Correlation matrix and anti-image matrix of the remaining items were examined and KMO and Bartlett tests were repeated. Scree plot table, the eigenvalues and the explained variance ratios of the items were examined to determine the number of factors, and the classifications of engagement included in the literature were taken into account (Costello & Osborne, 2005). It was observed that the breaks in the scree plot table of the final version of the scale, which consisted of 12 items, indicated a structure consisting of two factors. Findings regarding the factor structure of the scale are presented in Table 1 and Table 2.

Table 1

The Eigenvalues and Explained Variance of the Factors

Factor	Eigenvalues	of Variance%	Cumulative%
Individual Engagement	4.788	39.899	39.899
Interaction Engagement	1.406	11.717	51.616

The EFA revealed a scale structure comprising 12 items and two sub-dimensions. It was determined that the 2-factor structure of the scale accounted for a total variance of 51.62%. It was also concluded that the first dimension of the scale named "individual engagement", contributed to explaining 39.90% of the total variance, while the second dimension named "interaction engagement" contributed to explaining 11.72% of the total variance. A total variance between 40% and 60% percent is considered ideal for social science scales (Scherer et al., 1988).

Table 2
EFA Results

Item Number	Item	Item Total Correlation	Extraction	Component	
				Individual	Interaction
1	SSCE-9	.535	.513	.736	
2	SSCE-7	.568	.555	.762	
3	SSCE-21	.631	.608	.752	
4	SSCE-26	.535	.519	.742	
5	SSCE-24	.637	.588	.704	
6	SSCE-18	.528	.493	.716	
7	SSCE-10	.505	.545		.776
8	SSCE-17	.475	.517		.767
9	SSCE-33	.514	.504		.711
10	SSCE-31	.546	.501		.658
11	SSCE-28	.547	.446		.548
12	SSCE-27	.458	.405		.627

Judging from the data in Table 2, the item total correlations varied between 0.46 and 0.64. Field (2009) advised that the item total correlations be 0.30 or above to prove the relationship of each item in the scale with the entirety of the scale. The extraction values presented in Table 2 indicated that all the remaining items should be included in the structure of the scale. Also, items' factor loads in the scale varied between 0.55 and 0.78. Tabachnick and Fidell (2013) suggest that item factor loads should be at least 0.32 or above. Comrey and Lee (1992) narrow the definition further, classifying factor loads over 0.71 as excellent, factor loads over 0.63 as very good and factor loads over 0.55 as good. This means that the item factor loads of the scale are fairly adequate.

Although not presented in the Table 2 it was also found that the values in the communalities varied between 0.41 and 0.61, indicating that each item explained more than 40% variance. Costello and Osborne (2005) deem communalities between 0.40 and 0.70 to be adequate for social sciences scale development studies. Each item included in the SSCES seemed to contribute to the structure of the scale and explain an adequate percentage of variance.

The relationship between the sub-dimensions of the scale was examined via Pearson Product-Moment Correlation Coefficient. As a prerequisite for the correlation analysis, the normality of the distribution of scores obtained from the scale was examined. The results are presented in Table 3.

Table 3
Correlation Between Sub-Dimensions

	Individual Engagement	Interaction Engagement	Social Studies Course Engagement
Individual Engagement	1	.469[**]	.869[**]
Interaction Engagement	.469[**]	1	.845[**]
Social Studies Course Engagement	.869[**]	.845[**]	1

Table 3 shows that there was a moderately significant (R=0.469, p<0.05) correlation between the "Individual Engagement" and "Interaction Engagement" sub-dimensions of the SSCES. The obtained correlation coefficients also indicated that there was no multidimensionality problem between the sub-dimensions of the scale. A very significant (R=0.869, p<0.05) correlation was determined between the "Individual Engagement" sub-dimension and the entirety of the scale, and there was a very significant (R=0.845, p<0.05) correlation between the "Interaction Engagement" sub-dimension and the entirety of the scale.

Confirmatory Factor Analysis Results

A different study group consisting of 210 4th grade students was formed to obtain data in order to conduct a CFA for the SSCES. The model fit of the 12 items and the 2-factor structure identified through the EFA was examined via CFA. Based on the compliance indices obtained with the analysis, it was determined that the model fit of the scale was adequate ($\chi2$= 69.624, sd=53, p=0.06, $\chi2$/df=1.314). The fit index values were calculated as CFI=0.96, TLI=0.95, IFI=0.96, RMSEA=0.039, GFI=0.95, AGFI=0.92, RMR=0.048 and SRMR=0.053.

Table 4
Model Fit Indices of CFA

Indices	Criteria		Findings	Result
	Perfect Fit	Acceptable Fit		
χ^2/df	≤ 3	≤ 4-5	1.314	"Perfect"
CFI	≥ .95	≥ .90	.96	"Perfect"
TLI	≥ .95	≥ .90	.95	"Perfect"
IFI	≥ .95	≥ .90	.96	"Perfect"
RMSEA	≤ .05	≤ .08	.039	"Perfect"
GFI	≥ .90	≥ .85	.95	"Perfect"
AGFI	≥ .90	≥ .85	.92	"Perfect"
RMR	≤ .05	≤ .08	.048	"Perfect"
SRMR	≤ .05	≤ .08	.053	"Acceptable"

In accordance with the fit indices presented in Table 4, 12 items and the 2-factor structure appeared to have a very good fit and structural validity was achieved (Schumacker & Lomax, 2004; Tabachnick & Fidell, 2013). The 2-dimensional scale structure was confirmed to have adequate model fit as a result of the CFA. Scale structure is presented in Figure 4.

Upon reviewing Figure 4, which illustrates the two-dimensional structure of the SSCES, it is evident that the standardized factor loadings for the individual engagement dimension range from 0.52 to 0.68. Also, factor loads for the interaction engagement dimension are between 0.34 and 0.71. It was found that the model fit of the scale was adequate.
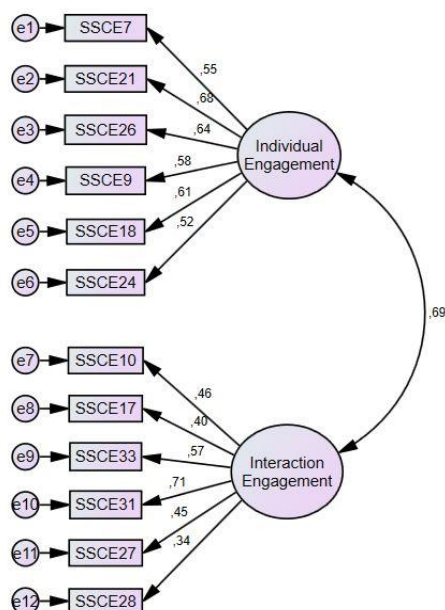

Figure 4. *Model Structure*

Reliability Analysis Results

A different study group consisting of 51 4th graders was formed to obtain data in order to conduct a reliability analysis for the SSCES. "Cronbach's Alpha" and "McDonald's Omega" coefficients are presented in Table 5.

Table 5
Reliability Analysis Results

	Cronbach's Alpha	McDonald's Omega
Individual Engagement	.82	.82
Interaction Engagement	.71	.71
Social Studies Course Engagement (total)	.81	.81

According to the analysis findings, the reliability coefficient of the "individual engagement" sub-dimension of the scale was 0.82, while the reliability coefficient of the "interaction engagement" sub-dimension was 0.71, and the reliability coefficient of the entirety of the scale was established to be 0.81. Consequently, the SSCES has adequate reliability for scores of both the sub-dimensions and the entirety of the scale (DeVellis, 2012; Fraenkel et al., 2012). The scale was repeated four weeks after the reliability analyses with the 51 4th grade students that participated in the reliability analyses. According to the findings obtained from the test-retest analysis, the correlation coefficient between the two applications was 0.72. As a result, the SSCES was determined to have an adequate test-retest reliability.

Discussion

In this research, the development of the SSCES specifically designed for elementary school students was undertaken, and the scale's reliability and validity were examined. The study employed a survey model and involved a total of 730 4th grade students. Through the application of EFA, a 2-factor structure comprising 12 items was derived. It was found that this 2-factor structure accounted for a cumulative variance of 51.62%. The scale appeared to explain an ideal percentage of total variance (Scherer et al, 1988). Based on the CFA it was determined that the version of the scale consisting of 2 sub-dimensions and 12 items had and adequate model fit (Schumacker & Lomax, 2004; Tabachnick & Fidell, 2013). When the correlation status between the sub-dimensions was examined, it was determined that there was a moderately significant correlation between the two sub-dimensions of the scale. Reliability analyses conducted that both the internal consistency and the test-retest coefficients of the scale were adequate. The process elicited a reliable and valid measurement tool that can be used to examine the engagement of 4th grade students towards the social studies course.

The classification of engagement that is widely accepted in the literature consists of three dimensions: "cognitive", "affective" and "behavioral" engagement (Deng vd., 2020; Fredricks et al., 2004; Wang vd., 2014; Wang vd., 2016). In the current study, unlike the literature, the Social Studies Course Engagement Scale had a two-dimensional structure regarding course engagement. Students' individual engagement behaviors during the learning process were examined through the first dimension, while their engagement behaviors that involve interaction with their teachers and friends were examined through the second dimension. It is thought that this two-dimensional structure regarding engagement is correlated with the nature of the social studies course.

The first sub-dimension of the SSCES was named "Individual Engagement". Individual engagement refers to students' individual efforts towards learning inside and outside of the classroom. Ryu and Lombardi (2015) consider individual engagement as a process that involves assuming roles and responsibilities regarding learning. Upon considering the aims of this social studies course, it is observed that individual engagement is closely correlated with the overall aims. Students' individual engagement in the social studies course, meaning assuming their own learning responsibilities, is an important step in their learning to become engaged individuals.

The second sub-dimension of the SSCES was named "Interaction Engagement". Interaction engagement refers to the engagement behaviors of students regarding interacting with their peers and teachers during the lesson. The social studies course aims to teach individuals to work in cooperation with individuals with different cultural backgrounds, while respecting these different cultural backgrounds (Mindes, 2014). Interaction engagement is based on individuals sharing their thoughts with

other individuals while respecting these individuals and working in cooperation and helpfulness. In conclusion, interactive engagement is a dimension of engagement that serves ultimate aims for the social studies course.

Appendix I

	Social Studies Course Engagement Scale	Never	Sometimes	Often	Always
Individual Engagement	1. I take notes of what I learn during the social studies class.	Never	Sometimes	Often	Always
	2. I review the subjects I learned in the social studies course after the class.	Never	Sometimes	Often	Always
	3. After the social studies class, I study subjects that I did not understand during the class.	Never	Sometimes	Often	Always
	4. I study social studies regularly every day.	Never	Sometimes	Often	Always
	5. I prepare for the social studies class by reading about the subject beforehand.	Never	Sometimes	Often	Always
	6. I keep being interested in subjects I learned in the social studies course even after the class.	Never	Sometimes	Often	Always
Interaction Engagement	7. When I don't understand a social studies subject, I ask my teacher questions about the subject.	Never	Sometimes	Often	Always
	8. I ask my teacher for help when I need it in the social studies class.	Never	Sometimes	Often	Always
	9. I like to help my friends in the social studies class	Never	Sometimes	Often	Always
	10. I like to share my thoughts about social studies subjects with my friends.	Never	Sometimes	Often	Always
	11. I like to participate in course conversations in the social studies class.	Never	Sometimes	Often	Always
	12. I raise my hand in the social studies class.	Never	Sometimes	Often	Always

Appendix II

	Sosyal Bilgiler Dersine Katılım Ölçeği	Hiçbir Zaman	Bazen	Çoğu Zaman	Her Zaman
Bireysel Katılım	1. Sosyal Bilgiler dersi sırasında öğrendiklerimi not alırım.	Hiçbir Zaman	Bazen	Çoğu Zaman	Her Zaman
	2. Sosyal Bilgiler dersinde öğrendiğim konuları dersten sonra tekrar ederim.	Hiçbir Zaman	Bazen	Çoğu Zaman	Her Zaman
	3. Sosyal Bilgiler dersinden sonra derste anlamadığım konulara çalışırım.	Hiçbir Zaman	Bazen	Çoğu Zaman	Her Zaman
	4. Her gün düzenli olarak Sosyal Bilgiler dersine çalışırım.	Hiçbir Zaman	Bazen	Çoğu Zaman	Her Zaman
	5. Sosyal Bilgiler dersinden önce konuyu okuyarak hazırlık yaparım.	Hiçbir Zaman	Bazen	Çoğu Zaman	Her Zaman
	6. Sosyal Bilgiler dersinden sonra da derste öğrendiğim konularla ilgilenirim.	Hiçbir Zaman	Bazen	Çoğu Zaman	Her Zaman
Etkileşimli Katılım	7. Sosyal Bilgiler dersinde anlatılanları anlamadığımda öğretmenime sorarım.	Hiçbir Zaman	Bazen	Çoğu Zaman	Her Zaman
	8. Sosyal Bilgiler dersinde ihtiyacım olduğunda öğretmenimden yardım isterim.	Hiçbir Zaman	Bazen	Çoğu Zaman	Her Zaman
	9. Sosyal Bilgiler dersinde arkadaşlarıma yardımcı olmak isterim.	Hiçbir Zaman	Bazen	Çoğu Zaman	Her Zaman
	10. Sosyal Bilgiler konularıyla ilgili düşüncelerimi arkadaşlarımla paylaşmak isterim.	Hiçbir Zaman	Bazen	Çoğu Zaman	Her Zaman
	11. Sosyal Bilgiler dersinde ders içi konuşmalara katılmak isterim.	Hiçbir Zaman	Bazen	Çoğu Zaman	Her Zaman
	12. Sosyal Bilgiler dersinde parmak kaldırırım.	Hiçbir Zaman	Bazen	Çoğu Zaman	Her Zaman

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