Article History
Received: 22.03.2022
Received in revised form: 12.07.2022
Accepted: 23.07.2022
Article Type: Research Article

International Journal of Contemporary Educational Research (IJCER)

www.ijcer.net

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Emre Laçin[1], Erhan Çetin[2]
[1]Hatay Mustafa Kemal University, 0000-0003-0262-1743
[2]Ankara University, 0000-0002-7135-9825

To cite this article:

Laçin, E. & Çetin, E. (2022). An Examination of teachers' use of metacognitive strategies in supporting the reading comprehension skills of children with learning disabilities. *International Journal of Contemporary Educational Research*, *9*(3), 519-531. https://doi.org/10.33200/ijcer.1091661

International Journal of Contemporary Educational Research
Volume 9, Number 3, September 2022, 519-531 ISSN: 2148-3868

An Examination of Teachers' Use of Metacognitive Strategies in Supporting the Reading Comprehension Skills of Children with Learning Disabilities

Emre Laçin[1*], Erhan Çetin[2]
[1]Hatay Mustafa Kemal University,
[2]Ankara University

Abstract

Metacognitive reading strategies are to facilitate the reading processes of students, to give them the chance to monitor and control the reading process, and to regulate the reading process. While many typically developing children can acquire these cognitive processes, children with learning disabilities (LD) have difficulties. They also have more limited memory than typically developing children. It is an effective method for making it easier for children with limited memory and learning difficulties to remember the information in the text and thus increase their understanding. The most effective people in teaching metacognitive reading strategies are teachers. Teachers' knowledge level of metacognitive strategies affects the reading comprehension success of students with LD (Oslund et al., 2016). Therefore, in this study, it aims to examine the views of teachers on the teaching of metacognitive reading strategies to improve the reading comprehension of children with LD. The "Metacognitive Reading Strategy Usage Scale" (MRSUS) developed by Özen and Durkan (2016) was used to evaluate the teaching of metacognitive reading strategies that teachers use to improve reading comprehension. The MRSUS is a tool that evaluates a set of strategies that children use before, during, and after reading. MRSUS scores of 204 teachers participating in the study were examined. Got results; presented in the findings section.

Keywords: learning disability, Teacher training, Reading difficulties, Metacognitive learning strategies

Introduction

Reading comprehension is one of the basic tools necessary for learning. However, when the reading performance of students in different countries is examined, it is seen that many students perform below what they should be (OECD, 2019). The risk of failure in reading comprehension is always higher for students with learning disabilities (LD), who are in the risk group because of poverty or lack of stimuli, compared to their normally developing peers (McFarland et al., 2017). According to a study conducted on the subject, it was stated that especially students with LD (Tarchi, 2015) and students affected by poverty and lack of stimuli (Oslund et al., 2016) were all deficient in skills such as reading comprehension and especially making inferences. While teaching students with such difficulties to read with comprehension, special education teachers need to make instructional adaptations, use teaching methods and materials, and make frequent evaluations to ensure the functionality of the individualized education plan (Edmonds et al., 2009). Children with LD need to exert more effort to read with understanding compared to their normally developing peers. For example, secondary school students are required to read and understand a greater amount of information in subject areas than primary school students (Gajria et al., 2007). However, it is estimated that 21% of middle school students with LD are at least five grades below their peers in reading (National Joint Committee for Learning Disability, 2008). Reading comprehension of the text and gaining information can be difficult, especially for middle school students with LD (Edmondset et al., 2009). Reading comprehension can be defined as a skill that requires students to interact with the text they read and make sense of stories or passages (Honig et al., 2008). At the secondary school level, as text structures become more complex, it becomes increasingly difficult for children with LD to make sense of them (Gardill & Jitendra, 1999). Comprehension is called "the essence of reading" (Durkin,1993). Researchers agree that the ultimate purpose of reading written materials is comprehension (Edmonds et al., 2009; Honig et al., 2008). Negative statistics on reading comprehension for

* Corresponding Author: *Emre Laçin, emrelacn09@gmail.com*

students with LD underscore the fact that comprehension can actually be difficult for many students. Strategy teaching, which is used to increase comprehension, emerges as a functional way to help students understand the purpose of reading and equip them with the practical skills necessary to understand the text (Honig et al., 2008). Reading strategies provide a way for readers to access the meaning of the text. Studies show that the correct use of reading strategies can facilitate understanding of the text (Hagaman et al., 2012; Klingner et al., 2015). In this respect, successful readers understand, discover, and use reading strategies better. (Van Keer and Verhaeghe, 2005; Westbrook et al., 2019). Readers with low reading comprehension performance cannot discover and apply efficient reading strategies or techniques on their own and may not understand the text because of a lack of knowledge of reading strategies (Daly et al., 2015). As a promising teaching approach, teaching reading strategy is thought to be effective in helping readers with low reading comprehension performance (Daly et al., 2015; Konza, 2006; Roberts et al., 2013). There are many methods, techniques, and strategies used by teachers in the literature to support reading comprehension. One of them is teaching metacognitive strategies. Metacognitive reading strategies are tactics used by the reader to plan, monitor, evaluate, and use the information given to the reader. Metacognitive reading strategies are used to discover important details while reading, to keep them in mind, to combine new information with old ones, to produce new information that is not in the text, to interpret the text, to use personal judgments and to make sense of it. Metacognitive strategies; It allows the reader to form insight, find the main idea, determine the author's purpose and predict the content, make deep meaning and literary inferences, and use the context of the text to understand unknown words and judgments (Mokdari and Reichard, 2002). Students with LD have significant difficulties in using cognitive and metacognitive strategies (Anastasiou & Griva, 2009; Botsas, 2017; Wigent, 2013) and it has been stated in various studies that the inability to use these strategies effectively is the main reason that negatively affects their understanding (Hagaman et al., 2012; Mastropieri et al., 2003; Swanson and Vaughn, 2010). Students with LD cannot establish a purpose for reading, monitor their own comprehension, organize their reading according to the difficulty level of the text, or make inferences (Sencibaugh, 2007). Through strategy teaching, students with LD can be provided with the skills to cope with all these difficulties. When studies evaluating intervention studies aimed at improving the comprehension skills of students with LD are examined, it is seen that strategy teaching has positive effects on reading comprehension (Edmonds et al., 2009; Gajria et al., 2007; Gersten et al., 2001; Kim et al., 2012; Mastropieri et al., 2003). Some of these studies state that the most important factor affecting the development of reading comprehension skills is cognitive and metacognitive strategy teaching (Gajria et al., 2007; Gersten et al., 2001; Kim et al., 2012; Swanson, 1999). Therefore, teaching and using metacognitive strategies to students with LD is very important for their reading comprehension skills. Teachers are the most effective people in teaching and using metacognitive reading strategies in terms of reading and reading comprehension. Furthermore, teachers should guide students in the use of strategy so that they can best interpret the text they read (Kana, 2014). Students ' use of metacognitive and cognitive strategies depends on their teachers' expertise in knowledge and skills on the subject (Başaran, 2013). In addition, the ability of students to read and understand a text is very important for their lifelong learning and its foundations are laid in primary school (Öztürk, 2012). Teacher competencies differ according to various demographic variables. As teachers' age and length of service increase, they are expected to gain experience and become more qualified in their profession (Pantić & Wubbels, 2010). In Turkey, the socioeconomic level of the region where the teachers work affects the self-development of the teacher (Ergül et al., 2014). In a study evaluating preschool teachers' knowledge of reading strategies, it was found that the knowledge level of teachers working in the low SEL region was low (Cunningham et al., 2009). The level of knowledge of teachers working with LD on strategies to improve reading comprehension differs according to the SEL of the region they work in (Talbott et al., 1994). Inclusive education and special education support services are provided to children with LD in Turkey. Primary school teachers or Turkish art teachers study reading skills with children with LD in general education classrooms. While special education teachers receive special education support services, they study reading skills with children with LD in resource rooms. Teachers' educational performances may differ depending on their field (Wake & Whittingham, 2013). Children with learning disabilities have the same or sometimes higher intelligence scores than typically developing children. However, limitations in attention and memory skills cause them to be unsuccessful in the academic field. These limitations also have an effect on reading comprehension skills. Children with learning disabilities need to use metacognitive strategies to overcome their difficulties in reading comprehension.

The use of metacognitive awareness and skills has an important effect on increasing students' academic success, and these skills can be developed through metacognitive teaching (Özsoy, 2008; Doğan, 2013; Karaman et al., 2014; Katrancı & Yang, 2013). Individuals with learning disabilities often experience metacognitive problems. These individuals have difficulties in acquiring metacognitive skills such as deciding on the difficulty level of a task, identifying and implementing strategies that will help them at school and outside of school, monitoring whether the strategy they choose and implement is working, and switching to a different strategy when necessary (Vuran, 2014). In order to acquire metacognitive awareness and skills, which have a very important

role in the success of students, educators need to teach these cognitive processes and skills to individuals and create awareness about these skills (Doğan, 2013; Katrancı & Yangın, 2013). Metacognitive learning strategies are strategies that allow students to control their own cognition (Boyacı, 2010) and are generally related to the awareness of which strategy will be more beneficial during the use of strategies in the reading process (Ülper, 2010). It is necessary to teach cognitive and metacognitive strategies and to raise awareness about these strategies in order to gain reading comprehension skills for students with learning difficulties and students with intellectual disabilities; that is, their metacognitive awareness should be developed in which situations and for what purpose the strategies will be applied (Doğanay-Bilgi, Özmen, 2014). Research on cognitive and metacognitive strategies provides a basis for understanding the processes involved in higher-order cognitive activities such as reading comprehension and also provides a foundation for process-based instruction. This study aims to determine the reading comprehension practices of teachers working with LD students that enable these students to develop metacognitive reading strategies. In the context of this purpose, answers to the following questions are sought:

1. How does it score on the Teachers' Metacognitive Reading Strategies Utility Scale (MRSUS)?
2. Do teachers' scores from MRSUS sub-dimensions differ according to the socio-economic level (SEL) of the region they work in?
3. Do teachers' scores from MRSUS sub-dimensions differ according to their length of service?
4. Do teachers' scores from MRSUS sub-dimensions differ according to their branches?
5. Do teachers' scores on MRSUS sub-dimensions differ according to whether or not they take courses related to learning disabilities?

Method

Design

In this study, a causal, descriptive survey model was used to examine the use of metacognitive strategy skills of Turkish teachers, primary school teachers, and Special Education teachers working with LD, in terms of age, length of service, socio-economic level, and whether they took/did not take courses related to LD. The descriptive model (screening model) is a research approach that aims to describe past or present conditions as they are (Büyüköztürk et al., 2010).

Participants

We conducted the research in Ankara, Turkey. The study group consisted of a special education teacher, a primary school teacher, and Turkish teacher who worked with LD in reading comprehension. A Confirmatory Factor Analysis was performed with 236 participants analyzed on research questions made with 200 other people. We have shown the study group characteristics in Table 1.

Table 1. Teachers' Demographic Information

Length of Service	Teacher's Branches			Total
	Primary School Teacher	Special Education Teacher	Turkish Teacher	
0-5 years	39	121	20	180
6-10 years	46	36	4	86
11-20 years	42	32	9	83
21 years and over	36	13	38	87
Total	163	202	71	436

Materials

The researchers created an information form to collect demographic information from the teachers who participated in the study (length of service, age, socioeconomic level, branch, and whether or not they were taking a course related to learning disability). Second, we used the "Metacognitive Reading Strategies Utility Scale" (MRSUS) to assess how teachers use metacognitive strategies. It is a measurement tool that evaluates the extent to which teachers use metacognitive strategies consisting of pre-reading, reading, post-reading, and reading evaluation dimensions. The scale developed by Özen and Durkan (2016) consists of four sub-dimensions and 25 items. Since the scale was developed for pre-service teachers, we need to do CFA. Since we work with different teacher groups (primary school teachers, Turkish teachers, and special education teachers),

we applied for confirmatory factor analysis (CFA). (H): Items in this sub-topic belong to metacognitive reading strategies during the reading preparation (planning) phase (5 items, numbered H1-5) The highest score that can be taken from this section is 25. A high score shows the utility level of applications during the planning phase is high. During reading (E): Items in this sub-topic belong to metacognitive reading strategies during the reading (self-monitoring) phase (5 items, numbered E6–10). A high score taken from this section shows the utility level of applications during the self-monitoring phase is high. After Reading (S): Items in this sub-topic belong to metacognitive reading strategies during the after-reading phase (7 items, articles: S11-17). A high score taken from this section shows the utility level of applications during the after-reading phase is high. Reading Evaluation (D): Items in this sub-topic belong to metacognitive reading strategies during the reading evaluation phase after reading. (8 items, items: D18-25). A high score taken from this section shows the utility level of applications during the reading evaluation phase is high. The results of the analysis are shown in figure 1.

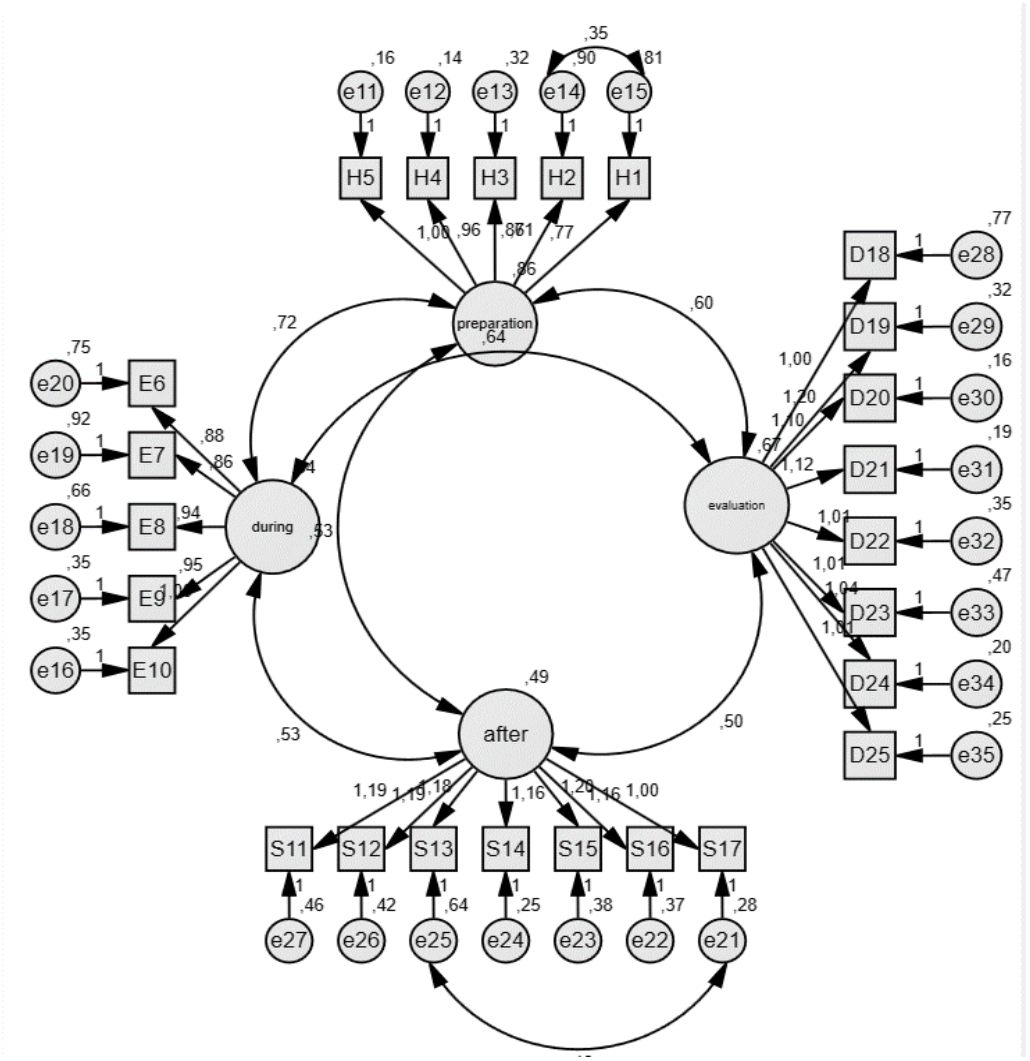

Figure 1. A confirmatory factor analysis model for metacognitive reading strategies utility scale (Standardized Values)

During the assessment of the confirmatory factor analysis (CFA) results, Chi-square and degrees of freedom values were identified as $\chi 2=648.012$ (sd=267, $p<.01$) and the ratio of $\chi 2/sd=2.42$ was obtained. In this study, it could be concluded that the fit between the model obtained as a result of CFA and the data suggests a perfect fit. The fit indices detected as a result of the CFA are presented in Table 2.

Table 2. The fit indices obtained as a result of CFA

The Fit Criteria	Perfect Fit	Acceptable Fit	In the Scale Model observed value
$\chi 2/d$ (648,012/267)	$\chi 2/d<3$	$4<\chi 2/d<5$	2.42
RMSEA	0<RMSEA<0.05	0.05<RMSEA≤0.08	0.08
S-RMR	0≤S-RMR≤0.05	0.05≤S-RMR≤0.1	0.06
NNFI	0.97≤NNFI≤1	0.90<NNFI<0.97	0.90
CFI	0.97≤CFI≤1	0.90<CFI<0.95	0.91
GFI	0.95≤GFI≤1	0.90<GFI<0.95	0.92
AGFI	0.90≤AGFI≤1	0.85<AGFI<0.90	0.88
IFI	0.95≤IFI≤1	0.90<IFI<0.95	0.91

(Kelloway, 1989; Schumacker ve Lomax, 1996; Sümer,2000; Tabachnick ve Fidell, 2001; Thompson, 2004; (Hu ve Bentler, 1999; Thompson, 2004).

When the CFA results are examined, it is seen that the four-dimensional structure of the scale is confirmed. For the reliability analysis of the scale, a Cronbach Alpha reliability test was performed for each of the sub-dimensions. Accordingly, the results were as follows for the reading preparation sub-dimension as.88, the during-reading sub-dimension as.85, the after-reading sub-dimension as.91, and the reading evaluation sub-dimension as.94. As a result of the validity and reliability analyses, it is possible to say that the scale is a valid and reliable scale.

Procedure and The Analysis of Data

Due to the COVID-19 pandemic, the scales were delivered to the predetermined teachers via Google Forms.

The total scores obtained from the subscales of the scale were analyzed according to the variables included in the research questions. Detailed results of the analysis are presented in the result section.

Results

The results and findings of the analysis performed to answer the research questions of the study are presented in this section. The scores that the teachers attained from the sub-dimensions of the scale were evaluated comparatively in terms of various variables. Demographic information regarding these variables is shown in Table 3.

Table 3. Teachers' Demographic Information

The Length of Service	Teacher's Branches	Taking course/Not taking course		Total
		Yes	No	
0-5 Years	Primary School teacher	11	7	18
	Special Education Teacher	50	4	55
	Turkish Teacher	6	3	9
	Total	67	14	82
6-10 Years	Primary School teacher	15	7	22
	Special Education Teacher	16	0	17
	Turkish Teacher	1	1	2
	Total	32	8	41
11-20 Years	Primary School teacher	11	8	19
	Special Education Teacher	12	3	16
	Turkish Teacher	3	1	4
	Total	26	12	39
21 years and over	Primary School teacher	12	6	18
	Special Education Teacher	6	0	6
	Turkish Teacher	13	5	18
	Total	31	11	42
Total	Primary School teacher	49	28	77
	Special Education Teacher	84	9	94
	Turkish Teacher	23	10	33
	Total	156	47	200

The extreme values of the four sub-dimension scores of the Metacognitive Reading Strategy Utility Scale (MRSUS) of 204 teachers included in the analysis were converted into the standard scores (z scores) and the extreme values were examined. In the normal distribution curve, the z scores are between +3 and -3 (Deniz, 2020). As a result, four participants' data were excluded from the analysis because their z scores were outside the range of +3 and -3. In order to find an answer to the first research question of the study, "How do teachers score on the Metacognitive Reading Strategies Utility Scale (MRSUS)?", descriptive statistics such as the mean, standard deviation, mode, and median of the scores of the teachers attained from the sub-dimensions of the scale were estimated. The results of the analysis are presented in Table 4.

Table 4. Descriptive Values Regarding the Scores of Teachers' from Sub-Dimensions of MRSUS

Dimensions	N	Min. Score	Max. Score	Mean Score	The Success Percent (%)	SD
Reading Preparation	200	7	25	19	76	3.95
During Reading	200	5	25	17	68	4.33
After Reading	200	10	30	24	80	4.59
Reading Assesment	200	12	40	28	70	6.63

The results of the teachers' scores from the scale are clearly expressed in Table 4. Scores and standard deviations related to the sub-dimensions of the scale are included. An ANOVA was conducted to determine whether the scores obtained from the sub-dimensions of the scale differ according to the socio-economic level studied. Before we made ANOVA, we made sure that the distribution satisfied the assumptions of normality. The results of the analysis are presented in Table 5.

Table 5. Normality Test Results

Sub-dimensions	N	Min. score	Max. Score	X	Median	Mod	SD	Skewness	Kurtosis
Reading Preparation	200	7	25	19	20	20	3.95	-.60	.21
During Reading	200	5	25	17	17.5	15	4.33	-.39	-.10
After Reading	200	10	30	24	25	30	4.59	-.95	.53
Reading Assesment	200	12	40	28	29	31	6.63	-.19	-.51

When the results of the n ormality test were assessed, it was assumed that the scores of the teachers from the sub-dimensions of the scale were normally distributed with regard to the skewness and kurtosis values. In the evaluation of the values related to the normality assumption in the literature, it was proposed that a skewness value of less than -3.0 and a kurtosis value of less than 3.0 indicate a normal distribution (Tabachnick & Fidell, 2001). The histogram plot of the distribution of subscales is shown in Figure 2.

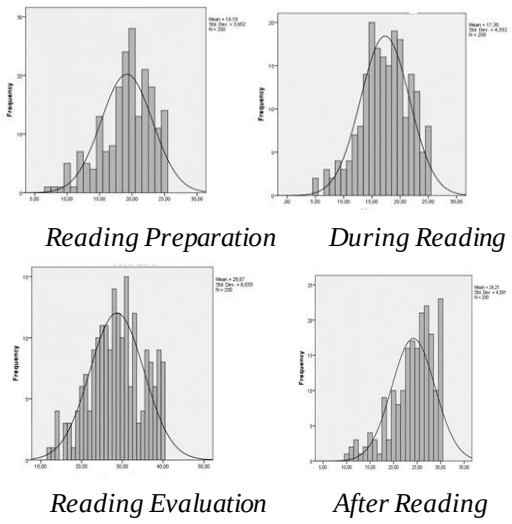

Figure 2. The Scores of Teachers Regarding the Sub-dimensions of MRSUS

After ensuring a normal distribution of data, a one-way ANOVA was carried out in order to compare the scores of the teachers from the sub-dimensions of MRSUS according to the socioeconomic status of the area where they work. ANOVA results are presented in Table 6.

Table 6. ANOVA Results for MRSUS according to SEL

	The source of the variance	Total of the squares	df	Mean of squares	f	p
Preparation sub-dimension	Between groups	24.386	2	36.193	4.59	.02
	Within groups	3083.134	197	15.650		
	Total	3107.520	199			
During-reading sub-dimension	Between groups	10.719	2	18.906	3.85	.00
	Within groups	3724.476	197	5.359		
	Total	3735.195	199			
After- reading sub-dimension	Between groups	2.771	2	21.578	3.65	.00
	Within groups	4191.824	197	12.856		
	Total	4494.595	199			
Reading Assesment sub-dimension	Between groups	23.733	2	44.317	3.74	.00
	Within groups	8730.487	197	11.86		
	Total	8754.220	199			

After the results of the analysis were examined, it was obvious that the scores obtained by the teachers from the sub-dimensions of MRSUS differed significantly according to SEL. The findings were as follows; reading preparation sub-dimension, $F(2, 197)=4.59$, $p<.05$; during reading sub-dimension $F(2, 197)=3.85$, $p<.05$; after-reading sub-dimension $F(2, 197)=3.65$, $p<.05$; reading evaluation sub-dimension, $F(2, 197)=3.74$, $p<.05$. In other words, teachers' average scores vary depending on the SEL of the area where they work. First, Levene's test was used to determine whether the variances of the group distributions were homogeneous, and the variances were found to be homogeneous (LF = 0.950; 05).nm Above all, the Scheffe multiple comparison technique, which is a widely used technique, was preferred in the case of the homogeneity of variance. The reason why the Scheffe test was preferred is that the test is sensitive to alpha-type errors. According to the results of the Scheffe multiple comparison analysis, a significant difference was identified in favor of the teachers working in the upper socioeconomic area in all sub-dimensions of the MRSUS. In the reading preparation sub-dimension, the mean scores of teachers working in the upper socioeconomic area (X=20.51) were determined as statistically significantly higher than the mean scores of the teachers working in the middle socioeconomic area (X=19.21), and lower (X=18.17) socioeconomic area.

In order to find an answer to another research question of the study, " Do the scores obtained by the teachers from the sub-dimensions of MRSUS differ according to their length of service?", the scores of the teachers from the sub-dimensions of the scale were compared using One-Way Analysis of Variance (ANOVA). The results are presented in Table 7.

Table 7. ANOVA Results of MRSUS by the Length of the Service

	The source of the variance	Total of the squares	df	Mean of squares	f	p
Preparation sub-dimension	Between groups	35.309	3	11.77	.751	.523
	Within groups	3072.211	196	15.67		
	Total	3107.520	199			
During-reading sub-dimension	Between groups	21.128	2	7.04	.372	.774
	Within groups	3714.067	196	18.94		
	Total	3734.152	199			
After- reading sub-dimension	Between groups	82.170	3	27.390	1.305	.274
	Within groups	4112.425	196	20.982		
	Total	4194.595	199			
Reading Assesment sub-dimension	Between groups	246.292	3	82.097	1.892	.132
	Within groups	8507.928	196	43.408		
	Total	8754.220	199			

When the table was examined, the difference between the groups in all sub-dimensions of the scale was not identified as statistically significant. In other words, the average scores of the teachers included in the study with different lengths of service were identified to be very close to each other. In seeking an answer to the other research question of the study, " Do the scores that teachers acquire from the sub-dimensions of MRSUS differ according to the teacher's branches?", the scores of the teachers from the sub-dimensions of the scale were compared using One-Way Analysis of Variance (ANOVA). The results are shown in Table 8.

Table 8. Teachers' ANOVA Results According to Their Branches

	The source of the variance	Total of the squares	df	Mean of squares	f	p
Preparation sub-dimension	Between groups	12.406	2	6.202	.395	.674
	Within groups	3095.117	197	15.711		
	Total	3107.520	199			
During-reading sub-dimension	Between groups	9.659	2	4.829	.255	.775
	Within groups	3725.536	197	18.911		
	Total	3735.195	199			
After- reading sub-dimension	Between groups	58.677	2	29.339	1.397	.250
	Within groups	4135.918	197	20.995		
	Total	4194.595	199			
Reading Assesment sub-dimension	Between groups	65.694	2	32.847	.745	.476
	Within groups	8688.526	197	44.104		
	Total	8754.220	199			

After the examination of Table 8, the difference between the groups in all sub-dimensions of the scale was not statistically significant. In other words, the average scores of teachers from different branches (special education, primary school teachers, and Turkish teachers) included in the study were very close to each other.

In order to answer the last research question of the study, "Do the scores that teachers obtain from the sub-dimensions of MRSUS differ according to whether they take courses related to LD or not?", the scores of the teachers from the sub-dimensions of the scale were compared using the t-test for independent groups. The

results are shown in Table 9.

Table 9. T-test Results for Mean Score Comparisons According to Whether Teachers Take Learning Disability Courses or Not

	Group	n	X	SD	Mean	t	df	p
Reading sub-Dimension	Taking course	130	18.95	3.91	2.85	3.43	198	.005
	Not taking course	70	16.10	7.85				
During Reading sub-Dimension	Taking course	130	17.10	4.11	2.20	2.65	198	.002
	Not taking course	70	14.90	7.65				
After Reading sub-Dimension	Taking course	130	24.00	4.68	3.80	3.73	198	.003
	Not taking course	70	20.20	9.70				
Reading Assesment sub-Dimension	Taking course	130	28.46	6.63	2.85	3.07	198	.010
	Not taking course	70	24.47	11.71				

After the examination of Table 9, the mean scores of the teachers' sub-dimensions of MRSUS differ significantly according to whether they have taken courses related to LD or not ($t(198)=3,43$, $p>.05$).

Discussion, Conclusion, and Recommendations

In this chapter, in the findings section, the results obtained were discussed in the context of the cause-effect relationship. This study aims to determine the views of teachers working with LD students on reading comprehension practices that enable their students to develop metacognitive reading strategies. It is suggested that children with LD have difficulties with reading, one of the academic skills (Lyon et al., 2003). In addition, many studies have shown that metacognitive strategies improve reading comprehension in students with LD (Gajria et al., 2007; Gersten et al., 2001; Kim et al., 2012; Swanson & Vaugh, 2010). Considering the importance of metacognitive skills for LD students' reading comprehension skills, their teachers have taken on important responsibilities.

In searching for an answer to the first research question of the study, "How do teachers score on Metacognitive Reading Strategies Utility-Scale (MRSUS)?", the scores of the teachers from all sub-dimensions of the scale were analyzed using descriptive statistics methods. The results revealed that the teachers' scores were good except for the "during reading" dimension of the scale. Kutlu and Çok (2002) asserted that one is accepted as successful if he/she completes the scale successfully at a rate of 70% or over. It was observed that the teachers achieved 76% success in the reading preparation dimension, 68% during the reading dimension, 80% after the reading dimension, and 70% in the reading evaluation dimension. According to these results, teachers were determined to be successful except during the reading dimension, where their success rate during the reading dimension was identified as moderate. In a study conducted in Turkey, Sulak and Behriz (2018) showed that teachers showed moderate success in using metacognitive strategies in their study with normally developing children. Teachers working with LD are expected to master more metacognitive strategies than teachers working with normally developing children. The fact that the teachers in this study were better than other teachers in different studies in the literature may be due to their previous experience working with LD. After the evaluation of the studies in the literature, it was often shown that teachers who try to enhance the reading skills of children with LD should use metacognitive methods (Palladino et al., 2000). Another reason for attaining good scores of teachers working with LD is that all teachers in Turkey take undergraduate courses about children with special needs. Teachers who have completed all teaching programs complete their education by knowing what to do and how to help children with special needs. In addition, the professional development of teachers continues through in-service training courses provided by the Ministry of National Education.

Teachers' metacognitive reading strategy utility-scale scores were evaluated according to another variable, namely socio-economic level. The scores of the teachers were compared according to the socio-economic levels

of the areas where they work in three categories: low, middle, and upper. As a result of the analysis, the scores of the teachers working in upper socioeconomic areas were determined to be better than the scores of the teachers working in the low and middle socioeconomic areas in all subscales of the scale. No statistically significant difference was identified between low and middle socioeconomic areas. This result suggests that the families of children from low socioeconomic status are not interested in their children's education. This may be related to the decrease in the teacher's motivation and his giving up on the reading comprehension instruction of the child. In studies, it was observed that the socio-economic level variable had an impact on teachers' knowledge about students with LD, their acknowledgment of the students in this group, and having information about what interventions they should apply (Moothedath & Vranda, 2015). It is suggested that the knowledge level of the teachers working in the upper socioeconomic areas about the children diagnosed with LD was better than the teachers working in the lower and middle socioeconomic areas (Atanga Jones et al., 2020). In a reading intervention-based study conducted with LD, a reading comprehension intervention program was applied to children, and the results were compared in terms of the SEL levels of the children. According to the results obtained from the research, it was discovered that the children from the upper socioeconomic areas were more successful than the children from the lower and middle socioeconomic areas (Talbott et al., 1994). According to the assessment of the research findings and the results of all the studies in the literature altogether, an overlap was identified between all the results. In addition, it could be concluded that the increased success level of students with LD in the upper socioeconomic areas mentioned in the literature may have positively influenced the efficiency of teachers in the utilization of metacognitive strategies. Ergül et al. (2015) evaluated teachers who use interactive book reading methods in kindergartens in different socioeconomic areas. They revealed that teachers working in the upper socioeconomic areas applied reading preparation, during reading, after reading, and reading evaluation strategies completely, while the teachers working in the lower and middle socioeconomic areas insufficiently implemented these strategies. Teachers working in upper socioeconomic areas were more successful in the utilization of metacognitive strategies than teachers working in lower and middle-upper socioeconomic areas.

The scores of the teachers participating in the study from the MRSUS were examined in four categories according to their length of service: 0-5, 6-10, 11-20 years, and 21 years and over. The scores of the teachers from each sub-dimension of the scale were compared separately according to their length of service, and no statistically significant difference was detected between them. In the literature, it is shown that the level of knowledge and success of teachers escalate as their length of service increases (McGee & Richgels, 2003; Pintrich, 2002). Besides, it is seen that the results obtained in this study do not coincide with the results detected in the studies in the literature. This study only aimed to investigate the metacognitive strategy use levels of teachers who do reading studies with LD. For this reason, the prerequisite of studying reading skills with LD was required of the participants included in the study. Thus, all teachers who try to enhance reading skills with LD should know metacognitive strategies and use them effectively. The teachers' focus on improving the reading skills of children with LD may have encouraged them to investigate metacognitive strategies and learn about their use extensively. Also, the experience gained by experienced teachers over the years may have eliminated discrepancies in knowledge between teachers who are at the beginning of their professional life, but who take undergraduate courses on metacognition. Thus, in some studies in the literature on the use of metacognitive strategies, it has been suggested that the length of service is not a variable that makes a difference (Durkan & Özen, 2016; Sulak & Behriz, 2018).

The study group of the research consists of Turkish teachers, primary school teachers, and special education teacher branches. When the scores of the teachers attained from the sub-dimensions of the MRSUS were compared according to their branches, no statistically significant difference was identified. After the studies in the literature are evaluated, it is concluded that primary school teachers are good at using metacognitive strategies such as reading preparation, during reading, after reading, and reading evaluation (Sulak & Behriz, 2018). Besides, it is revealed that the metacognitive strategy skills of the students in the Turkish language teaching program are successful in all areas. The utility of metacognitive strategies is a teaching method that special education teachers frequently apply to acquire the academic skills of children with special needs, especially in those with LD. In the special education teaching undergraduate programs, there is information on the metacognitive strategy use methods in the content of courses such as teaching reading to students with LD and special abilities and teaching Turkish to students with special needs. For this reason, teachers are expected to be successful in the utilization of metacognitive strategies. As it is obvious from the results, the scores of special education teachers from the subscales of MRSUS are successful. In the same way, the scores of the primary school teachers and Turkish teachers from the subscales of MRSUS are very good. When the scores of the teachers from the subscales of the MRSUS were compared according to their branches, no statistically significant difference was identified between their scores. Because of the courses of undergraduate programs for special education teachers, including mainly metacognitive strategies and their experience in working with

children with special needs, it could be expected that they would be better at using metacognitive strategies than other teachers. The fact that the primary school and Turkish teachers are actively studying reading skills with LD and that the metacognitive strategies method is the most commonly used method to enhance reading skills in these children may have increased their awareness of this issue and, consequently, may prevent the emergence of a difference between them. Along with the increase in awareness, teachers may have searched for their shortcomings and tried to improve them. This may have led to the disappearance of statistically significant differences they had when compared to special education teachers.

After all the findings obtained from the study are evaluated together, it could be proposed that the teachers who participated in the study are good at using metacognitive strategies while studying reading skills. Also, we could state that the strategies that teachers use only during a reading should be further developed. According to the findings detected after an examination of variables playing a role in the teachers' use of metacognitive strategies, it was revealed that taking courses related to LD and SEL in the area where they work was affecting the level of metacognitive strategy use. It was also observed that teachers working in the upper socioeconomic areas were better than those working in the lower and middle socioeconomic areas, and there was no difference between the lower and middle socioeconomic areas in terms of their performance. In our study, another variable that created a difference was whether or not teachers took courses for LD. It can be said that teachers who take lessons on LD are better at applying metacognitive strategies than those who do not.
According to the results obtained from the research, it was seen that the teachers working in the lower and middle socioeconomic regions used metacognitive strategies less. This situation may cause disadvantaged students with learning difficulties to fall behind even more. It can be suggested that teachers working in low and middle socioeconomic regions should be supported with in-service training programs. In addition, training programs can be organized for families and school personnel regarding the access of students with learning disabilities to special education support services.
In this study, data was collected only from teachers regarding the use of metacognitive strategies. Studies should be conducted by collecting data from students with learning disabilities in order to deal with the use of metacognitive strategies in all its dimensions. In addition, the study is limited to the participation of only 200 teachers from the province of Ankara. In order to generalize the results of the study, data can be collected from different cities in Turkey.

Contribution Rate of the Author (s)
The authors contributed equally to the article.

Conflicts of Interest
The authors declared no potential conflicts of interest regarding the research, authorship, or publication of this article.

Ethical Approval (only for necessary papers)
Ethical permission 18.02.2021–02 was obtained from Kırıkkale University's Social and Humanities Sciences Scientific Research and Publication Ethics Committee for this research.

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