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Research Article

Determining the strategies used by teachers working with students with intellectual disabilities in teaching reading comprehension

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Abstract

The general purpose of this study was to define the strategies used by teachers working with students with intellectual disabilities in teaching them reading comprehension. In line with this general purpose, the study sought to find out which cognitive and metacognitive strategies these teachers working used before, during and after reading in reading comprehension activities in the classroom. The study used semi-structured interviews, one of the data collections techniques employed in qualitative studies. Interviews were conducted with 13 special education teachers working with students with mild intellectual disabilities. These students are educated at a special education and practice school high school. The data obtained from the teachers were analyzed using descriptive analysis. The findings obtained as a result of this analysis showed that special education teachers used a limited number of strategies in teaching reading comprehension.

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Introduction

As an interactive process involving both the reader and the text (Alyousef 2005), reading is considered a prerequisite for academic skills. The skill of reading consists of the processes of first decoding and then understanding or comprehension (Ozmen & Vayiç, 2007; Solis, M., Kulesz, P., & Williams, K. (2022); Fälth, L., Selenius, H., & Egerhag, H. (2023). “Decoding” can be defined as the transformation of written symbols into sounds (Guldenoglu, Kargin, & Ergül, 2016; Hoover & Gough 1990). As individuals become able to decode a text automatically, which is the first stage in being able to read, understanding the text is the next step. “Reading comprehension”, which is the ultimate goal of reading, refers to the situation in which new ideas are ultimately transmitted to the reader through connecting their past knowledge with the information communicated in the text (Lipson & Wixson, 2009).

Reading comprehension is thus a complex process that involves advanced skills, including the ability to anticipate or predict what will be found in the text, to locate the main idea or theme, to ask questions, to establish relationships between units of information and to summarize and organize this information, and it thus requires the simultaneous use of cognitive and metacognitive strategies (Alexander & Jetton, 2000; Baker & Brown, 2002; Gersten, Fuchs, Williams, & Baker, 2001; Westby, 2004).

There are a number of strategies that competent readers use before, during and after reading in order to successfully understand a text (Doganay-Bilgi & Ozmen, 2014). Strategies that can be applied for effective comprehension include (a) skimming the text before reading, thereby identifying the aim, structure, length and level of difficulty of the text, (b) rereading a sentence or paragraph that has not been immediately understood, slowing down the pace of reading, going back, identifying unknown words, taking notes, underlining important information, narrating and summarizing the text to themselves and others, and (c) cognitive and metacognitive strategies such as reviewing the text, rereading the parts that were not understood, asking questions about the text, and self-evaluation after reading (Bishop, Reyes, & Pflaum, 2006; Johnson, Graham, & Harris, 1997; Pressley & Gaskins, 2006). Within this framework, cognitive and metacognitive strategies are often addressed together in teaching reading comprehension strategies before, during and after reading (Pressley & Hilden, 2002).

Studies have indicated that students with normal development are able learn these strategies more easily, while students with special needs often do not know what these strategies are, and even if they do, they do not know how to use them (Gersten et al., 2001). The inability of students with special needs to use these strategies causes their reading comprehension to be at a lower level than that of their peers (Gersten et al., 2001).

One of the groups of students with special needs who have problems in reading comprehension skills is students with intellectual disabilities (Ozmen, 2011). It is a known fact that students with intellectual disabilities have problems in identifying important information in the texts they read and making connections between pieces of information (Guzel, 1999; Eripek, 2005). A study conducted by Eripek (1987) with students with intellectual disabilities found that these students had learned to read in the first and second grades, but it was concluded that they needed support in terms of reading comprehension skills. There are two important factors to consider when teaching reading comprehension skills to students with intellectual disabilities. One is that these students may not have full reading comprehension skills, and the

other is that these students may not have been taught effective ways of comprehending texts before (Guler, 2008).

Teachers are the most important element in helping students acquire effective reading comprehension skills. Teachers working with students with intellectual disabilities are expected to teach reading comprehension individually or in small groups by using evidence-based interventions in the classroom. An examination of the literature reveals that techniques such as teaching and reinforcing skills, text reinforcers, questioning strategies, text structure-based strategies, and multi-item strategies or instructional packages are all used in reading comprehension instruction (Mastropieri & Scruggs, 1997).

Studies have shown that when children with intellectual disabilities are taught cognitive and metacognitive strategies for reading comprehension, they can use these skills in their reading (Doganay-Bilgi & Ozmen, 2014; Guler, 2008; Guldenoglu & Kargin, 2012; Swanson & Trahan, 1996; Yucesoy & Cure, 2018). In this respect, it is important for teachers working with students with intellectual disabilities to teach specific cognitive and metacognitive strategies using the right methods and approaches. A literature review shows that only a limited number of studies has been conducted on teaching reading comprehension to students with intellectual disabilities. In these studies, story map teaching (Duman, 2006; Ozmen, 2011; Işıkdoğan & Kargin, 2010), multi-item cognitive strategy teaching (Doganay-Bilgi, 2010; Guldenoglu, 2008), direct instruction (Flores & Ganz, 2007; Guzel, 1998) and strategy teaching (Guler, 2008) were used to teach reading comprehension skills to students with intellectual disabilities.

The use of these methods, which have proven to be effective in helping students acquire reading comprehension skills, by teachers in classroom settings has always been a subject of academic discussion. As many researchers have emphasized, the question of how effective interventions prepared on scientific grounds actually are in real-world environments is still open. This study thus aimed to define strategies used by teachers working with students with intellectual disabilities on reading comprehension. The study will reveal which strategies teachers use while teaching reading comprehension to students with intellectual disabilities and how they use them. Therefore, we believe that the findings of this study will help in the design of in-service training on reading comprehension skills for teachers working with students with intellectual disabilities. In line with this general purpose, the study sought to establish which cognitive and metacognitive strategies teachers working with students with intellectual disabilities used before, during and after reading exercises in the classroom. The study had three sub-objectives. The first was to determine the pre-reading cognitive and metacognitive strategies used by teachers working with students with intellectual disabilities in reading comprehension activities in the classroom. The second sub-objective was to determine the reading order cognitive and metacognitive strategies used in this context. The third sub-objective was to determine the post-reading cognitive and metacognitive strategies used.

Methodology

Model of the study

This study utilized the interview technique, one of the data collection techniques used in qualitative studies. The interview technique, which is based on data collection through verbal communication, can be conducted in three ways – structured, unstructured or semi-structured –

according to the strictness of the rules being followed (Karasar, 2012). This study was conducted using semi-structured interviews.

Population and sample

The participant group of the study consisted of 13 special education teachers working with students with mild intellectual disabilities at the third level of a special education and practice school. The teachers agreed to participate in the study voluntarily. Descriptive statistics about the characteristics of the teachers are presented in Table 1.

Table 1. Descriptive statistics for teachers' characteristics

Teacher	Gender	Age (Yr.)	Professional experience (Yr.)	Graduating institution	Department
A.	Female	50	21	Cumhuriyet University	Elementary Teaching
B.	Male	27	3	Necmettin Erbakan University	Special Education
C.	Female	47	16	Ankara University	Elementary Teaching
D.	Female	34	2	Necmettin Erbakan University	Special Education
E.	Female	32	10	Ondokuz Mayıs University	Special Education
F.	Male	42	20	Abant İzzet Baysal University	Special Education
G.	Male	27	2	Necmettin Erbakan University	Special Education
H.	Female	39	18	Anadolu University	Special Education
İ.	Female	38	12	Balikesir University	Elementary Teaching
J.	Female	46	8	Anadolu University	Special Education
K.	Female	27	6	Sakarya University	Special Education
L.	Female	32	10	Gazi University	Special Education
M.	Female	40	9	Agri University	Elementary Teaching

As seen in Table 1, three of the teachers participating in the study were male and 10 were female. The age of the teachers ranged between 32 and 50 years, and their professional experience ranged between two and 21 years. Nine of the teachers participating in the study had graduated from Special Education undergraduate programs. Four of the teachers were graduates in Elementary School Teaching. They were included in the study because they had completed the Special Education Certificate Program at Gazi University.

Data collection tool

Two data collection tools, namely a "personal information form" and a "semi-structured interview form" were used in the study. Semi-structured interviews were used to determine the cognitive and metacognitive strategies used by the teachers before, during and after reading, and to obtain in-depth information. The Personal Information Form, included questions about the participants' gender, age, university graduated from, department and professional experience. The semi-structured interview form, which was developed by the researchers, consisted of 11 open-ended questions to determine the reading comprehension strategies used before, during and after reading. The semi-structured interview form was prepared in the following stages:

- a) *Preparation of the question pool:* The researchers conducted a literature review and examined studies on reading comprehension skills and prepared a question pool consisting of 15 questions.

- b) *Obtaining expert opinions.* An expert opinion form was prepared stating the purpose of the study and including the question pool. The first part of the form consisted of three columns, with the question in the left column, a space for “yes” and “no” answers in the middle column, and a space for “explanations” in the right column. The questions were emailed to three experts, two of whom had completed their doctorate in special education and one of whom completed their doctorate in measurement and evaluation in education. They were asked to examine the questions one by one and give their opinions.
- c) *Organization of the semi-structured interview form.* The researchers examined the feedback from the experts and the necessary amendments were made. The form, which consisted of 12 questions in total, was then pilot-tested with a teacher who worked with students with intellectual disabilities but was not included in the participant group.
- d) *Pilot implementation.* The first author posed the questions to the abovementioned teacher and asked her to evaluate the comprehensibility of each question. During the interview the teacher said that one of the questions was not understandable, so it was re-examined and it was found that there would be no problem removing it from the form, so this question was deleted.
- e) *Final semi-structured interview form.* The semi-structured interview form consisting of 11 questions was finalized after the expert opinion and the pilot interview.

The questions in the semi-structured interview form are given below:

1. What kind of activities do you use when teaching reading comprehension to your students?
2. What activities do you do for reading comprehension before reading?
3. What activities do you do for reading comprehension during reading?
4. What activities do you do for reading comprehension after reading?
5. How often do you include teaching reading comprehension strategies in these reading comprehension activities?
6. What cognitive strategies for reading comprehension do you include in your reading comprehension activities?
7. What metacognitive strategies for reading comprehension do you include in your reading comprehension activities?
8. What methods and approaches do you prefer to use when teaching cognitive and metacognitive strategies for reading comprehension? What do you put most focus on in teaching?
9. What kind of adaptations and adjustments do you make in teaching cognitive and metacognitive strategies for reading comprehension?
10. What do you need in teaching cognitive and metacognitive strategies for reading comprehension?
11. How would you evaluate yourself in terms of teaching cognitive and metacognitive strategies for reading comprehension?

Data collection

Ethical approval and permission to implement the study were obtained from the Ministry of National Education before it began. After these had been received, the administrators and teachers working at the school where the study would be conducted were informed about its nature and purpose, and then teachers who were interested in participating were identified. Fifteen teachers volunteered to participate in the study. An interview schedule was prepared with these teachers. The data collection process was conducted on five different days. Two of the teachers withdrew from the study during the data collection process, and thus interviews were conducted with 13 teachers.

The teachers, who had provided their contact information, were reminded of the day and time determined the day before the data collection process. All interviews with teachers, including the pilot study, were conducted by the first author. The interviews were conducted in the “parent interview room”, which had been allocated by the school principal. During the interview, the researcher and the teacher sat across from each other, the researcher explained the purpose of the study again, and when the teacher was ready, the researcher asked the questions one by one. All interviews were recorded on an audio recorder after obtaining permission from the teachers. These face-to-face interviews lasted between 18 and 33 minutes. After interviews had been conducted with all the teachers, the data collection process was finalized. The specific data obtained from the individual participants were filed separately.

Data analysis

The audio recordings of the interviews were first transcribed using the Microsoft Office program and then evaluated using descriptive analysis techniques. In descriptive analysis, direct quotations are included in order to give the explicit opinions of the people involved, and, at the same time, the results are examined in terms of cause-and-effect relationships (Yıldırım & Şimşek, 2003). In this context, the views of the special education teachers were evaluated descriptively and direct quotations from the participants were presented as codes and themes.

Validity and reliability

In order to ensure the internal validity of the study, expert opinions were obtained regarding the interview questions, while the participants provided their informed consent and are directly quoted below.. To ensure the external validity, the stages and the processes of data collection and data analysis have been explained in detail. In qualitative studies, inter-coder reliability is expected to be within the 90% confidence interval (Miles & Huberman, 1994). In this study, a 95% consensus was obtained in the calculation made using the formula "Reliability = Consensus/(Total Consensus + Total Disagreement)".

Findings

The data obtained from the teachers were divided into main themes and then into sub-themes. The main themes obtained are presented in Table 2.

Table 2. Main themes obtained from descriptive analysis

Main Themes	
1.	Activities performed before reading

2.	Activities performed during reading
3.	Activities performed after reading
4.	Cognitive and metacognitive strategies used in teaching reading comprehension
5.	Methods, approaches and adaptations used in teaching reading comprehension
6.	Topics teachers had problems with
7.	Teachers' professional needs

As can be seen in Table 2, seven main themes were obtained as a result of the analysis of the teachers' answers to the interview questions. Each of the main themes is discussed in detail below.

1. Activities performed before reading

The first finding obtained from the teachers as a result of the semi-structured interviews conducted within the scope of the study was the activities that teachers performed before reading. The teachers' responses to this main theme were categorized into nine sub-themes. The sub-themes and their frequencies are presented in Table 3.

Table 3. Subthemes related to the activities performed before reading

	Sub-theme	Frequency
1.	Text selection	4
2.	Talking about visuals related to the text	4
3.	Watching a video about the text	3
4.	Drawing a picture related to the subject of the text	1
5.	Silent reading	4
6.	Reading aloud	3
7.	Talking about the text	11
8.	Modeling	4
9.	Drama	1

As seen in Table 3, four of the teachers stated that they talked about the visuals related to the text before reading and three of them stated that they watched a video about the text. One of the teachers stated that she assigned roles to her students about the text and did a role-playing activity before reading. Eleven of the teachers stated that they gave a short, spoken introduction to the text before starting reading. Teachers A, L and M stated that they provided information about the subject of the text and gave instructions to the students about what to do before starting the text, while Teachers C, D, E, I and K stated that they did question-answer activities about the text before starting the text. Teacher E also stated that they carried out activities to predict what the text was about. Teacher L said: Before reading, if there is a message we [the teachers] want to give about the text, that is, if there is a point we want to emphasize, we chat about it. We try to attract the children's attention. Since they find it a little harder to focus, we first gain their attention and arouse their curiosity. (Teacher L) Teacher J said: "Before reading, I provide some brief information about the text, a story about the main idea, a joke. Then I read the text." Four of the teachers discussed the criteria they pay attention to in selecting texts before starting reading activities. Accordingly, Teacher A paid attention to choosing texts about current issues, while Teacher C stated that she tried to choose texts consisting of at most two paragraphs with concrete concepts. While Teacher E chose texts consisting of short and simple sentences, Teacher

I stated that she chose texts that included daily life skills. Teacher F stated that she had her students draw pictures based on the subject of the text she had chosen before starting reading activities.

2. Activities performed before reading

The second finding obtained from the teachers as a result of the semi-structured interviews conducted within the scope of the study was the activities that the teachers performed during reading. The teachers' responses related to this main theme were grouped into five sub-themes. The sub-themes and their frequencies are presented in Table 4.

Table 4. Sub-themes obtained regarding the activities during reading

	Sub-theme	Frequency
1.	Question and answer	7
2.	Working on unknown words	2
3.	Reading aloud from part to whole (sentence, paragraph, text)	3
4.	Correcting reading errors	1
5.	Prosodic reading and reading repetition	3

As seen in Table 4, seven of the teachers included question-answer activities during reading. For example, Teacher A stated that the activities she performed during reading were as follows: "I do question-answer activities to get direct feedback". Teacher H said: During reading, for example, we give them sentences. We can do it in the form of 5N1K activities such as asking 'Where?', 'When?', or we try to describe the red house by asking questions such as 'What kind of house is the red house?' (Teacher H)

Teachers B and I stated that they found unknown words during reading and explained their meanings. Teacher I also stated that she asked the students to find the meanings of the words from the dictionary. She expressed this as follows: "Sometimes while we continue to read the passage, we ask questions about the places that have been mentioned, we find words that they know the meaning of from the dictionary, we talk and make associations". Teachers C, D and E stated that they read the texts aloud, moving from parts of the text to the whole text (first reading and talking about sentences, then reading and talking about a paragraph, and finally reading and talking about the whole text). Teacher G stated that she gave immediate feedback when her students made reading, while Teachers G, J and M stated that they read the text several times and paid attention to prosodic reading.

3. Activities performed after reading

Another finding obtained from the teachers as a result of the semi-structured interviews conducted within the scope of the study was the activities that teachers performed after reading. The teachers' responses related to this main theme were grouped into eight sub-themes. The sub-themes and their frequencies are presented in Table 5.

Table 5. Sub-themes Obtained Regarding Activities Performed After Reading

	Sub-theme	Frequency
1.	Summarizing	3
2.	Question and answer	12

3.	Teacher explaining the text	1
4.	Drama	1
5.	Finding a title for the text	1
6.	Using newly learned words in sentences	1
7.	Drawing a picture related to the text	1
8.	Providing examples from the students' lives	1

As seen in Table 5, three of the teachers asked students to summarize the text briefly after reading. Teacher A expressed this activity as follows: After the reading, I first ask the students to summarize what they have remembered in order to learn what they have understood. It doesn't matter how much they say - it can be in a sentence or one word, because this is special education and it depends on the level of the children. (Teacher A)

After reading, 12 of the teachers asked their students to answer both the reading comprehension questions under the text and questions they had generated themselves. Teacher F stated that after reading, she gave roles to her students and asked them to act out the text. Teacher L, on the other hand, stated the activities she did after reading were as follows:

We try and find a title for the text. If there are words they don't understand, if there are words they don't know, we talk about them, we use them in a new sentence. Afterwards, they can draw a picture related to the text or we do associative activities with another activity. (Teacher L)

Teacher M, on the other hand, stated that after reading, she tried to associate the information in the text with the students' own lives and tried to provide examples from the student's personal environment and experience.

4. Cognitive and metacognitive strategies used in teaching reading comprehension

Another finding obtained from the teachers as a result of the semi-structured interviews conducted within the scope of the study was the cognitive and metacognitive strategies that teachers included in their reading comprehension activities. The teachers' responses related to this main theme were grouped into six sub-themes. The sub-themes and their frequencies are presented in Table 6.

Table 6. Sub-themes related to cognitive and metacognitive strategies

	Sub-theme	Frequency
1.	Summarization	5
2.	Reminder (verbal cue, picture)	4
3.	Associating new knowledge with old knowledge	1
4.	Written statement	1
5.	Visualization	2
6.	Brainstorming	1

As seen in Table 6, five teachers (A, B, D, H and L) stated that they asked their students to verbally summarize as much of the text as they remembered. Teachers A, B and E stated that they used verbal prompts, and Teacher C stated that she tried to associate the information in the text with the pictures. Teacher A stated that she tried to associate new information with old information: When I explain a text about Atatürk, I try to remind them what they already know,

and tell them what they will know, what they need to know. For example, after studying a text, I specifically ask them to write it down. (Teacher A)

Teachers C and M stated that they tried to get the students to visualize the text in their minds, while Teacher J stated that they brainstormed about the text. However, Teachers F, G, I and K stated that they had no idea about cognitive and metacognitive strategies. In addition, for example, Teacher L said: We can't do much right now. I mean, there is not much extra we can do. In my previous studies, we were doing these kinds of things in reading comprehension. We give them short texts again. I mean, we can't do it with many books because the children's attention is distracted, but we have them summarize or something. (Teacher L)

5. Methods, approaches and adaptations used in teaching reading comprehension

Another finding obtained from the teachers as a result of the semi-structured interviews conducted within the scope of the study was the methods, approaches and adaptations that teachers used. The teachers' responses related to this main theme were grouped into six sub-themes. The sub-themes and their frequencies are presented in Table 7.

Table 7. Sub-themes related to the methods, approaches and adaptations used

	Sub-themes used	Frequency
1.	Modeling	6
2.	Peer teaching	1
3.	Explicit instruction	2
4.	Drama	1
5.	Making adaptations to the text and questions	2
6.	Prompt fading	1

As seen in Table 7, six teachers (A, B, C, D, H and F) stated that they acted as “models” for their students. Teacher C stated that she used peer instruction. Teachers D and J stated that they used explicit instruction, while Teacher E stated that she gradually faded the prompts she used. Regarding this, Teacher E said: We do not apply different techniques because the levels of the children are different. We try to summarize, but we don't use too many strategies. It can work like this: I give hints at the beginning and continue to help, but then I stop giving hints, I only give them instructions. (Teacher E)

Teachers K and L stated that they had no specific thoughts about the subject. Teachers C and G stated that they shortened or changed the text and reading comprehension questions by taking into account the individual characteristics of their students.

6. Topics teachers had problems with

Another finding obtained from the teachers as a result of the semi-structured interviews conducted within the scope of the study was the issues that teachers had problems with. In this regard, Teacher B stated that the classes were overcrowded at the high-school level and the time allocated for Turkish lessons was limited. This teacher said the following: It works something like this in vocational special education: The courses are mostly workshop courses and the classes are overcrowded compared to other special education schools. In this case, the classroom is like an ocean. There are 10 students. All 10 of them are in a different world. Now I have to explain 10 different topics to 10 different students in a two-hour lesson. This limits the use of these

strategies in my opinion...In this case, we use techniques such as demonstration and lecture more because these techniques save time and leave time for other students. (Teacher B)

Teachers C, H and L also stated that they had problems in teaching reading comprehension due to insufficient resources. For example, Teacher C expressed her thoughts as follows: There are no resource books for students. I mean, I have been in special education for 15-16 years. We always have the same reading comprehension books. Our texts are the same. I have to, I mean, I try to use primary-school 1st, 2nd and 3rd grade Turkish books or I find texts online myself. If there were reading comprehension books for these children, there would be a variety. There are some on the internet but they are very expensive. It is hard for the children to access them. But it would be very good if 'The Ministry of National Education' would print them. (Teacher C)

7. Teachers' needs

The last finding obtained from the teachers as a result of the semi-structured interviews conducted within the scope of the study was what teachers believe they need to teach reading comprehension. The teachers' responses related to this main theme were grouped into two sub-themes. The sub-themes and their frequencies are presented in Table 8.

Table 8. Sub-themes related to teachers' needs

	Sub-theme	Frequency
1.	Resources	6
2.	Training for professional development	6

As seen in Table 8, six teachers (A, C, D, E, H and L) stated that they needed different materials, including books and technological aids when teaching reading comprehension. In addition, Teachers A, B, C, D, E and L stated that topics related to reading comprehension needed to be included in in-service training organized by the Ministry of National Education.

Discussion and Conclusion

This study aimed to identify the strategies used by teachers working with students with intellectual disabilities in teaching reading comprehension. For this purpose, semi-structured interviews were conducted with 13 teachers working with students with mild intellectual disabilities in a special education vocational high school and information was obtained about the strategies, methods and approaches they used in this regard. The findings were grouped into seven main themes, and the sub-themes and ideas related to each main theme were discussed in detail. In this section, these findings are discussed in the light of the literature.

The findings showed that the teachers used a limited number of strategies before, during and after reading. In this respect, this finding is consistent with those of other studies in the literature (Aktas & Bayram, 2018; Anmarkrud & Braten, 2012; Barron et al., 2018; Baydik, 2011; Epcatan, 2009; İnce & Duran, 2013; Jakobson, K., Soodla, P., & Aro, M. 2022). In a study by Jakobson et al. (2022) it was found that special education teachers had only a partial knowledge of reading comprehension strategies. In similar studies, it was also determined, through classroom observation studies, that teachers had limited knowledge of such strategies (Anmarkrud & Braten, 2012; Barron et al., 2018). The present study found that the majority of the teachers only had a short discussion with their students about the topic of the text before

reading and provided instructions on what the students would have to do during the lesson. Although the content of these discussions included information about the texts, such as their titles, the subjects covered etc., the literature emphasizes the use of strategies such as skimming the text, and determining its structure, length and level of difficulty before reading for effective and purposeful reading (Bishop et al., 2006; Johson et al., 1997; Lipson & Wixson, 2009; Pressley & Gaskins, 2006). It is necessary to teach these strategies before reading, especially to children with intellectual disabilities whose ability to use such techniques may be limited. However, the information obtained from the teachers in this study showed that some of the teachers stated that they paid attention to the difficulty level of a text in the preparation phase. But, it was determined that the teachers did not give any information to the students about the structure of the text. Skimming a text before reading it is very important in terms of getting an idea about the text and the purpose of reading it (Johson et al., 1997; Lipson & Wixson, 2009; Pressley & Gaskins, 2006). In this respect, the fact that most of the teachers interviewed began with silent reading or reading aloud showed that this techniques was not emphasized.

The teachers' answers showed that they made the students read the text in small sections to help them understand the text during reading, summarized the text, and then provided continuous feedback to the students using the question-answer technique. Considering the students' type of disability, this practice is supported by the literature (Dimino, Gersten, Carnine, Blake, 1990; Johnson et al., 1997). The study revealed that teachers talked about unknown words during reading, albeit to a limited extent, and asked students to look up the meanings of these words in a dictionary. The literature suggests that cognitive and metacognitive strategies such as finding and underlining unknown words during reading, guessing the meanings of words by using context clues in the text, or finding the meanings of words from a dictionary should be used simultaneously (Gersten et al., 2001). In this respect, the fact that teachers included the strategies of finding unknown words and looking them up in the dictionary during reading is supported by the findings of other studies in the literature (Baydik, 2011; İnce & Duran, 2013). Baydik (2011) also found that 89.7% of the teachers participating in her study included practices to find the meaning of unknown words in the text. As a result, it was seen that the teachers did not do any work on predicting the meanings of unknown words using context clues in the text. However, studies in the literature have shown that utilizing context clues has significant effects on reading comprehension (Perfetti & Adlof, 2012). Other strategies that should be used during reading are rereading a sentence or paragraph that has not been understood, slowing down the reading speed, going back, taking notes, and underlining important information (Bishop et al., 2006; Lipson & Wixson, 2009). The information obtained from the teachers showed that they did not include these strategies during reading.

Another finding was the reading comprehension activities the teachers used after reading. It was found that the majority of the teachers asked reading comprehension questions after reading. In addition, the study determined that they also asked students to summarize what they had read and used drama activities, although not very often. A review of the literature emphasizes that cognitive and metacognitive strategies such as reviewing the text after reading, rereading the parts that have not been understood, asking questions about the text, and self-evaluation should be used simultaneously and these strategies should be taught to students (Mastropieri, Scruggs, & Graetz, 2003). In this respect, it is noticeable that the teachers predominantly concentrated on question-answer activities after reading. However, studies have

shown that being able to answer reading comprehension questions correctly after reading is related to the simultaneous use of different strategies (Johnson et al., 1997; Pressley & Gaskins, 2006).

Another significant finding of the study involved the level of teachers' use of cognitive and metacognitive strategies in teaching reading comprehension. In the interviews, it emerged that the teachers mostly used summarizing, while some teachers only tried to associate the information in the text with the pictures from the reminders. One of the two teachers tried to associate new information with old information and the other one tried to remind their students of previously acquired knowledge through brainstorming. Some teachers reported that they had no knowledge of these strategies. These findings are noteworthy. However, in the literature, it is frequently stated that cognitive strategies and metacognitive strategies, including self-regulation strategies, should be used simultaneously before, during and after reading (Berkeley & Larson, 2018; Nelson & Manset-Williamson, 2006). In addition, reading comprehension interventions with children with intellectual disabilities reveal that these children are able to use cognitive and metacognitive strategies when taught with the right methods and techniques (Doganay-Bilgi & Ozmen, 2014). Doganay-Bilgi and Ozmen (2014) introduced metacognitive strategies used in reading comprehension to students with mild intellectual disabilities through adapted multi-item cognitive strategy instruction, and their findings revealed that these students were able to use metacognitive strategies and there was a significant increase in their reading comprehension.

Another important finding was the methods used to teach reading comprehension and the adaptations and adjustments the teachers made to them. The information obtained in this regard shows that teachers mostly preferred to use modeling or explicit instruction. The literature review, on the other hand, revealed that different methods and techniques, including direct teaching, reciprocal teaching, and the use of story maps are effective in improving the reading skills of children with intellectual disabilities (Duman, 2006; Işıkdoğan, 2008; Ozmen, 1999; Lundberg & Reichenberg, 2013).

Reading comprehension strategies are very important in ensuring that reading activities have successful outcomes. These strategies should be taught to students with intellectual disabilities through both direct instruction and explicit teaching methods. For these reasons, it is important that special education teachers working with students with intellectual disabilities have sufficient knowledge about these strategies and how to use them. In this respect, it is thought that the findings of this study will make important contributions to the literature and studies about reading comprehension. In addition, it is thought that the present study provides findings that can be used in practical studies of how reading comprehension is taught in undergraduate teacher training programs. The findings obtained here from special education teachers working with students with mild intellectual disabilities showed that they included cognitive and metacognitive strategies, which are frequently mentioned in the literature, before, during and after teaching reading, but that they did not focus specifically on the principles of teaching strategies. In addition, the study revealed that the number of teachers who applied specific strategies was quite low, and some teachers did not include strategy teaching at all in their practices. The findings of the present study provide important information about the educational services provided to students with special needs. Considering the effectiveness of reading comprehension strategies on reading skills, it is thought that the findings of this study

make an important contribution to the literature and to practice and provide a guide for future studies. Suggestions regarding the research results are as follows:

1. The literature shows that teaching reading comprehension strategies has a positive effect on reading comprehension skills. In this respect, we recommend that teachers should include reading comprehension strategies before, during and after reading in their Turkish lessons.
2. The literature states that successful teaching of reading comprehension strategies should be planned using direct and explicit teaching methods and following the principles for teaching these strategies. In this respect, we recommend that teachers plan their reading comprehension activities in line with these methods and principles.
3. Considering the effectiveness of teaching reading comprehension strategies, it is important to inform teachers and school administrators about the importance, effectiveness, content and evaluation of such teaching. In this respect, we recommend that in-service training programs organized by the Ministry of National Education include seminars on these issues.
4. Considering the limitations of teachers regarding strategy instruction, it is necessary to inform teachers about reading comprehension strategies and how to teach and integrate these strategies into lessons. Mentor support should also be provided to teachers. These topics should thus be included in online or face-to-face training organized by experts in the field.
5. Future research could be conducted with teachers working with students affected by different types of disabilities.
6. Future research could be planned as an intervention study, in which teachers are given training in these areas.

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