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Opinions of Special Education Teachers and Primary Teachers About the Process of Initial Literacy Teaching: A Phenomenological Study

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Abstract

The current study, which aims to determine the opinions of special education teachers and primary teachers about the process of initial literacy teaching, it is method a qualitative phenomenological study. In the study, 15 special education teachers working in the field of special education and 15 primary school teachers working in primary schools in Turkey were selected through the criterion sampling method as the participants of the study. In order to elicit the experiences of the participating teachers on the subject being studied, the interview technique was used. The collected data were analyzed using content analysis, and the results of the study can be summarized as follows: Special education teachers use their content knowledge more effectively to solve emerging crisis situations. While the primary school teachers think that the sound-based sentence method applied in Turkey is suitable for inclusive students, the special education teachers recommend the use of different methods to attend to individual differences. When the difficulties faced by both the primary teachers and special education teachers in the process of initial literacy teaching were examined, forgetting sounds, difficulty in learning consonants, and problems in comprehending the syllable unit came to the fore. According to the results it is thought that the current study will shed light for interdisciplinary studies and practices to be conducted in the field of special education and primary education.

Keywords: Classroom teachers, inclusive education, special education teachers, students with special educational needs (SEN)

Introduction

The literacy process, which starts from primary school life, is one of the most important steps of education in terms an individual's ability to easily understand and interpret a text, to express himself/herself orally and in writing, and to be an individual who can contribute to society (Şahin & Çakır, 2018). For this reason, while the teaching of initial literacy requires expertise from teachers, the involvement of the family in the process is also critical. In this process, each child reveals his/her own cognitive development through the stages of reading and writing. While some students are able to read in a short time and with very little effort, some students may experience serious difficulties in this process. No matter how developed a society is, there are individuals who cannot benefit from general education services and therefore need special education (Demirok & Akçam, 2019).

In the early days of special education, the education of students with special needs used to be carried out in boarding or day special education schools. Later, special classes were opened within mainstream schools. However, it has been increasingly questioned that students with special needs are separated from their normal peers and placed in special education environments (İftar & Uysal, 1999). Special education strategies and approaches must be combined with strategies from inclusive education to provide effective education for all young people with special educational needs and disabilities (Kauffman & Hornby, 2020). Today's education approach is based on a single understanding for educators working in the field of primary education. This understanding, of course, aims to reach every child in the classroom in the context of inclusive education. Children who need inclusive education also have the right to taste success like other children.

Special Education and Teachers

Special educators are considered essential in schools, both in the regular system and in the separate special needs system (Lindqvist et al., 2021). A review of historical trends, special education laws, and basic structures has shown that there are both positive and negative aspects. Especially, lack of knowledge about the diagnosis process and special education laws is an important problem in this field (Francisco et al., 2020). Raghul et al. (2021) discussed the problems experienced during the COVID-19 process and listed the most important problems as "insufficient e-learning resources," "lack of teacher training in online education," "inadequacy in giving feedback to students," and "students' being forced to attend online classes."

Since most teachers in general education are not trained to work with students with special needs, it is important that teachers collaborate with special educators to get the support they need (Alghazo & Alkhazaleh, 2021). In addition to the general positive awareness of

primary teachers about inclusive education, it is necessary to support students' social-emotional skills in order to fully capitalize on inclusive education (Sirem & Çatal, 2022). The finding that special education teachers express a more positive attitude toward inclusion than general education teachers reveals that teachers need practice by doing additional work (Alabdallat et al., 2021). On the other hand, a study on the transformation of primary teachers into special educators includes a remarkable application. Xie et al. (2021) conducted interviews with teachers working in inclusive education schools in Beijing, China, to investigate the support room teachers' perspectives about their role in the process of transforming regular education teachers into special educators and the factors influencing this process of transformation. They emphasized that primary teachers should be clearly informed about what is expected of them in this process of transformation. However, Bhandari (2013) states that roles and responsibilities are not a statistically significant predictor of teachers' satisfaction.

Theoretical Framework

Some of the key features of today's society are social equality, the evolution of technology, and the society's emerging needs brought about by developing technology. Therefore, changing conditions in society affect education. Providing equal opportunity for all children should be the main goal of today's society (Unianu, 2012). Social transformation can happen through inclusive education. Inclusive education can achieve its goals through competent teachers who are well-equipped, knowledgeable, and able to develop the necessary values, trust, and support in students (Marimuthu & Cheong, 2015). In this context, inclusive education presents the most important educational perspective of the 21st century. The teacher's approach must be equal to each student with due to care and consideration of all children's right to learn from the basis of the philosophy of inclusive education. Moreover, Spörer et al. (2020) state that the most important factor affecting inclusive education is the structuring of the classroom environment on the basis of individual differences and peer relations.

When the studies on this subject are reviewed, it becomes clear that a carefully planned guidebook should be made available to novice teachers so that they can manage special education procedures effectively (Braxton, 2004). In addition, the lack of professional development and training in inclusive education and the lack of administrative support leading to low participation, teacher self-efficacy, and collaboration opportunities between general education and special education teachers and support staff can be considered as the main subjects of research (Campbell-Shirley, 2017). Hill (2021), on the other hand, emphasizes that general education teachers and special education teachers need administrative support to work together. This study is important in terms of looking at the issue from the dimension of the responsibilities of administrators. In the context of the support reading program applied to special education students and general education students, it was concluded that special education students need more support in their phonological awareness skills. In this study, it was also concluded that there was no difference between the two groups in terms of reading attitude (McCutcheon, 2013). Tuncay and Kizilaslan (2022), on the other hand, emphasize the importance of university students seeing more cases in the field of special education. More research is needed to analyze how inclusive education developments take place in different cultural and historical contexts (Moberg et al., 2020). A comparative investigation of the activities administered to special education students by both special education teachers and primary school teachers should be conducted and experiences that will constitute data for future research and practices should be shared. Therefore, in the current study, it is aimed to compare the practices of teachers in the field of special education and primary education based on their experiences. To this end, answers to the following questions will be sought:

- What are the opinions of special education and primary teachers about students who need special education in their classroom?
- What are the opinions of special education and primary teachers on their experiences of initial literacy teaching to students with special needs in their classroom?
- What are the different adaptations of special education and primary teachers regarding special education students in their classroom?

Methods

Model of the Study

This study was designed as a phenomenological study in the qualitative research design. The phenomenon addressed in the study aims to reveal the experiences of primary school teachers and special education teachers in the process of initial literacy teaching.

Citing the phrase "phenomenology is the study of essences," Van Manen (2016) explains that a good description that constitutes the essence of something is interpreted in such a way that the structure of a lived experience is disclosed to us in such a way that we can now grasp the nature and importance of this experience in a way that has never been seen before. Thus, a suitable subject for a phenomenological study is determined by questioning the fundamental nature of a lived experience.

Moustakas (1994) states that while obtaining scientific evidence in a phenomenological study, the researcher must establish and carry out a set of methods and procedures that meet the requirements of an organized, disciplined, and systematic study and lists the following steps:

- exploring a topic and question of social significance and importance;
- conducting a comprehensive review of the professional and research literature;
- constructing a set of criteria for finding suitable participants;
- preparing a document that, in accordance with the ethical principles of research, instructs co-investigators about the nature and purpose of the research and includes information about how to obtain informed consent, to ensure confidentiality, and to define the responsibilities of the primary investigator and research participants;
- developing a set of questions to guide the interview process;
- organizing and analyzing data.

Sample

The study group of the current study comprised of a total of 30 teachers; 15 special education teachers and 15 primary school teachers. The participants were selected according to inclusion and exclusion criteria through the criterion sampling method. In studies, researchers use inclusion and exclusion criteria to identify participants' characteristics. Determination of inclusion and exclusion criteria is an important step in designing high-quality research (Connelly, 2020). Descriptive information about the participants is presented in Table 1.

As can be seen from Table 1, while 11 of the primary teachers participating in the study are females, 4 of them are males, and while 11 of the special education teachers participating in the study are females, 4 of them are males. The primary teachers are in the age group of 30–50 and the special education teachers are in the age group of 25–51. The participants of the study were included in the study according to the following criteria: having graduated from the departments of primary education or special education, having experience with students with special educational needs, having experience of initial literacy teaching, teaching first to fourth graders, and some teachers were excluded on the basis of the following criteria: not having experience with

Table 1.

Characteristics of the Study Group According to the Inclusion and Exclusion Criteria

Inclusion Criteria	Primary Teachers		Special Education Teachers		Exclusion Criteria
Teaching first to fourth graders	Gender	Age	Gender	Age	Being a branch teacher
Having experience of teaching initial literacy	4 males	30–50 years old	11 males	25–51 years old	Not having answered the questions thoroughly
Having experience with students with special educational needs	11 females		4 females		Not having experience with students with special educational needs
Having graduated from the department of primary education	Total		Total		
	15 people		15 people		
Having graduated from the department of special education	30 people				

students with special educational needs, being a branch teacher, and not having answered the questions thoroughly.

Data Collection and Analysis

In the current study, a semi-structured interview form was used to collect data. The semi-structured interview form was applied online through the Zoom platform. The interviews lasted an average of 15–20 minutes and were then transcribed. Table 2, which reveals the relationships between the interview questions and the research problems, is presented below.

The analysis of the data was carried out by using content analysis, and the findings were presented in the form of codes and categories under thematic headings. No computer program was used in the analysis of the data and two researchers performed the analyses manually on the transcripts. In the raw data, the participants were coded as "P1, P2,…P30," and direct quotations were used while explaining the data. Although the participation was on a volunteer basis in the current study, the names of the participants were kept confidential within the framework of ethical rules.

According to Moustakas (1994), after the organization, presentation, and analysis of the data obtained from a phenomenological study, the researcher summarizes the study in its entirety and potential limitations should be taken into consideration. The researcher returns to the literature review, separates his/her findings from previous research, and discusses the results of the research in terms of personal and professional, as well as social meanings and values.

Validity and Reliability

Miles and Huberman (1994) [reliability=agreement/(agreement+disagreement)] formula was used to find the coefficient of agreement between the codings of the both researchers in order to establish consistency in the study. A coefficient above 80% indicates that the codings are consistent. In the current study, the coefficient of agreement was found to be 86%. This value indicates that the analyses of the researchers are consistent.

In order to ensure the credibility of the study, all the data and analyses were archived digitally in a way that other researchers could examine (with the identities of the participants kept confidential). In addition, the findings section was shared with the participants in terms of confirmability.

Inclusion criteria in the construction of the study group often improve the internal validity of a study, but the use of many exclusion criteria can have a profound negative impact on the external validity of the study. A balance between the two is necessary to establish good external validity (Connelly, 2020). For this reason, in order to establish the internal validity and external validity of the study, some participants were left out of the scope on the basis of the exclusion criteria after the raw data were carefully examined in the selection of the participants.

Table 2.

The Relationships Between the Interview Questions and Research Problems

Interview Questions	Research Problems
1. Can you list the groups that fall under the scope of special education? 2. Are there any inclusion students in your class? When the student is diagnosed as an inclusion student, what kinds of applications are conducted for him/her? 3. What kind of approach do you adopt toward students who would get the diagnosis of inclusion but cannot be diagnosed due to some reasons (rejection process in the family, etc.) and who have learning problems? Explain the difficulties you experience in detail.	What are the opinions of special education and primary teachers about students who need special education in their classroom?
4. What do you think about the application of the sound-based sentence method to special education students? 5. When working with inclusion students, at which stage (reading or writing) do you have more difficulty in the process of initial literacy teaching? 6. How do the activities organized in the process of initial literacy teaching differ between special education and primary school students? 7. Different from the standard teaching methods, which methods and techniques should be used for students who need special education in the process of initial literacy teaching? Explain with examples.	What are the opinions of special education and primary teachers on their experiences of initial literacy teaching to students with special needs in their classroom?
8. How is an ordinary initial literacy activity adapted to special education? Give examples. For example, using visual cards for both sound teaching and matching exercises and giving additional stimuli by using a laser pen in writing exercises in the air. 9. What kind of materials should be used to support students with special educational needs in their initial literacy teaching? Explain with examples. 10. What kind of assessment tools should be used to follow students with special educational needs in the process of initial literacy teaching? Explain with examples. 11. If there are any other instructional details you would like to add, please explain.	What are the different adaptations of special education and primary teachers regarding special education students in their classroom?

Research Ethics

In this study, data were collected with the permission of Gazi University Ethics Committee. The first section of the semi-structured interview form is the participant consent form section. Participants were included in the study on a volunteer basis.

Results

In this section, the findings obtained from the analysis of the data collected during the research process are included. The data collected with the semi-structured interview form were subjected to content analysis. The number of codes obtained may be higher than the total number of participants since a participant has statements containing more than one code.

Opinions of Special Education and Primary Teachers About Students Who Need Special Education in their Classes

In relation to the research problem "What are the opinions of special education and primary teachers about students who need special education in their classroom?" the following questions were directed to the participating teachers "Can you list the groups that fall under the scope of special education? and Are there any inclusion students in your class?" The codes, categories, and themes derived from the analysis of the answers of the participants are tabulated below.

When Table 3 is examined, it is seen that the primary teachers and special education teachers have comprehensive information about the groups to be included in the scope of special education, but the special education teachers make explanations with more codes. Among the codes expressed by the special education teachers, there are very detailed definitions such as hydrocephaly and fragile. Another remarkable data in Table 1 are that the number of students who require special education in the classrooms of the primary school teachers is quite high. The special education teacher P18 explained the reason for this situation as follows:

"I am in a special education class, there are no inclusive students in our classes; those students continue their education in mainstream classes." P 18

The opinions of the primary teacher coded as P8 about the students who receive education within the scope of inclusion in standard classrooms are as follows:

"Yes, I get very bored because he can't understand in the main lessons, he can't pay attention. He can be guided by his friends. He does not want to take the word, has difficulty expressing himself when promised, feels embarrassment. He usually feels unhappiness." P8

In relation to the first sub-problem of the study, the following questions were asked to the participants: "When the student is diagnosed as an inclusion student, what kinds of applications are conducted for him/her? and What kind of approach do you adopt toward students who would get the diagnosis of inclusion but cannot be diagnosed due to some reasons (rejection process in the family, etc.) and who have learning problems? Explain the difficulties you experience in detail."

The codes, categories, and themes derived from the analysis of the answers of the participants to these questions are presented in Table 4.

When the codes in Table 4 are examined, it is seen that the students diagnosed with inclusion are administered individualized instructional activities by both the primary teachers and special education teachers, but the primary teachers also include reading and comprehension activities due to their branch specialties. The difference of the special education teachers in this regard is that they know the diagnosis processes very well and put them into action. In addition, while it is seen that the codes coming from the primary teachers for the students who need inclusion but are not diagnosed for various reasons indicate serious problems, the codes of the special education teachers indicate their willingness to solve these problems by using their content knowledge. One of the biggest problems experienced in this regard is the family rejection process, and the comments of the primary teacher coded as P1 and the special education teacher coded as P18 on this issue are as follows:

"It is a very challenging process when the family does not accept it. The student has to be subjected to the same education as other children. In primary school, special education is applied informally mostly depending on the teacher, but unfortunately, the

Table 3.

Participants' Opinions About Students Who Need Special Education

Theme 1. Participants' Opinions About Students Who Need Special Education

Categories			
Primary Teachers		**Special Education Teachers**	
Codes		**Codes**	
Information on groups falling in the scope of special education	The state of having inclusion students in the class	Information on groups falling in the scope of special education	The state of having inclusion students in the class
Hearing impairment (12) Special learning difficulty (11) Intellectual disability (10) Autism (10) Physical handicap (8) Language and speech disorders Visual impairment (6) Attention deficit (4) Cerebral palsy (3) Giftedness (3) Dyslexia (3) Downs' syndrome (2)	Yes 13	Learning difficulty (6) ADHD (2) Fragile syndrome Rett syndrome Asperger's syndrome autism spectrum disorder (8) Intellectual disability (15) Hearing impairment (10) Visual impairment (10) Physical handicap (6) Cerebral palsy (2) Language and speech disorders (2)	Yes 10
			No 2
Acute illness (1) School adaptation problems (1)	No 2	Downs' syndrome (3) Pervasive developmental disorder Giftedness (6) Fragile souls Acute illness (1) Hydrocephaly	Special Education Classroom 3

Table 4.
The State of Being Diagnosed as an Inclusion Student or Not

Theme 2. The State of Being Diagnosed as an Inclusion Student or Not			
Categories			
Primary Teachers		**Special Education Teachers**	
Codes		**Codes**	
Studies with diagnosed students	Studies with undiagnosed students	Studies with diagnosed students	Studies with undiagnosed students
Individualized education program and support education (9)	Not being diagnosed as an inclusion student is a very serious problem (2)	Individualized education program and support education (12)	Persuading the family (5)
In-class tasks (2)	Problems in family participation (2)	Employing the diagnostic process, getting a rough assessment (1)	Student's lagging behind as he/she cannot receive support education (7)
Starting education in a special education class (2)	Forgetfulness in academic processes (3)	Conducting activities for adaptation to mainstream classes (2)	Referral to the counselling service (3)
Reading and comprehension techniques (2)	Problems in exams (3)		
	İYEP [Training Program in Primary Schools] (2)		
	Conducing activities suitable for the level of the child (3)		

student who has to take the same exams as other students in the fourth grade unfortunately becomes less successful. It can also cause great social distress." P1

"I do not know what kind of approach is used in normal classrooms, but the level of awareness should be raised by giving education to the family about the process of accepting their own child first. However, the child of the family who do not want to accept cannot enter the diagnoses process and thus will be evaluated within the normal program since an individualized education program has not been prepared for this child. However, since this child cannot fit into this program, the student's development should be evaluated according to his/her own development. He/she should not be compared with other students." P18

Opinions of Special Education and Primary Teachers on Their Experiences of Initial Literacy Teaching to Students with Special Needs in Their Classroom

In relation to the second sub-problem of the study "What are the opinions of special education and primary teachers on their experiences of initial literacy teaching to students with special needs in their classroom?," the participating teachers were asked the following questions: "What do you think about the application of the Sound Based Sentence Method to special education students?—When working with inclusion students, at which stage (reading or writing) do you have more difficulty in the process of initial literacy teaching?—How do the activities organized in the process of initial literacy teaching differ between special education and primary school students?—Different from the standard teaching methods, which methods and techniques should be used for students who need special education in the process of initial literacy teaching? Explain with examples." As a result of the analysis of the teachers' answers, themes, categories, and codes presented in Table 5 were reached.

When Table 5 is examined, it is seen that in the initial literacy teaching theme in special education, in the category of sound-based sentence method, the primary teachers mostly stated that the sound-based sentence method is suitable for students who need special education, while the special education teachers stated that individualized methods should be tried for each student. Differences of opinion among the teachers may be due to differences in personal experiences. For example, special education teachers coded as P20 and P23 commented as follows:

"There are situations where it is disadvantageous for special education students, but it especially contributes to the discovery of children with articulation disorders and to the development of language speaking skills." P20

"This method is best if the student is diagnosed between the age of 6 and 12, he/she is fitted with correct equipment, and there is no additional obstacle besides the hearing impairment. In contrary situations, the method cannot yield the desired result." P23

When the difficulties faced by both the primary teachers and special education teachers in the process of initial literacy teaching were examined, the following difficulties were detected: forgetting sounds, difficulty in learning consonants, and problems in comprehending the syllable unit. The comment that there may be problems with sounds, combining sounds and consonants in relation to the method is concerning.

"I don't have much trouble with students having special learning difficulties. However, it is very difficult to teach abstract concepts to students with intellectual disabilities and autism. Since the sound alone does not have a meaning, they have great difficulties and they move to the syllable and word stage with great difficulties. I think it is not suitable for those having intellectual disabilities or autism." P30

Different Adaptations of the Special Education and Primary Teachers Regarding Special Education Students in Their Classroom

In relation to the third sub-problem of the study "What are the different adaptations of special education and primary teachers regarding special education students in their classroom?," the participating teachers were asked the following questions: "How is an ordinary initial literacy activity adapted to special education? Give examples. For example, using visual cards for both sound teaching and matching exercises, giving additional stimuli by using a laser pen in writing exercises in the air—What kind of materials should be used to support students with special educational needs in their initial literacy teaching? Explain with examples.—What kind of assessment tools should be used to follow students with special educational needs in the process of initial literacy teaching? Explain with examples." The codes, categories, and themes derived from the teachers' responses to these questions are presented in Table 6.

In Table 6, the adaptations made by the teachers in the classroom are addressed in three categories: instructional adaptations, materials, and assessment. Accordingly, it was determined that instructional adaptations made by both the primary teachers and special education teachers on the basis of different methods and techniques are similar, but the special education teachers created richer content in terms of using materials. The same is true for the assessment category, and it is an important finding that the special education teachers used more detailed assessment tools specific to the field. The main difference between the special education teacher coded as P30 and the primary

Table 5.
Initial Literacy Teaching in Special Education

Theme 3. Initial Literacy Teaching in Special Education				
	Application of the Sound-Based Sentence Method to Special Education Students	**Difficulties Experienced by Inclusion Students in the Process of Initial Literacy Teaching**	**Activities for Those Who Need Special Education and for Those Who Show Normal Development**	**Initial Literacy Methods Suitable for Special Education Students**
Categories	**Codes**	**Codes**	**Codes**	**Codes**
Primary teachers	Generally suitable, but there are situations where it is not (4) Not suitable for those with speech and language disorders (2) I think it is effective (2) Experience problems arising from forgetting sounds (2)	Forgetting and not being able to combine sounds (4) Writing— dictation (12) Listening (3)	No difference (3) Simpler worksheets (9) Attention-drawing activities (3)	Concept teaching (1) Sentence method Basara [A kind of literacy technique in Turkey] (4) Syllabus method (2) Word method (2) Paired learning, instruction-based learning (1) Drama, role-playing (1) Activities integrated with information technologies (1) Speaking skill development for those having language and speech disorders (2) Visuals for those having intellectual disabilities (1) One-to-one study (1)
Special education teachers	Individualized methods for students should be tried (11) May not be suitable for some children who need special education (4)	Combining syllables (3) Misspelling (6) Reading comprehension (6) Reading consonants (5)	Simpler and shorter activities (5) Activities for revision (3) Concrete material support (5) Since the readiness levels are different, extra activities should be done (2) Special activities should be organized for each student (1)	Fixed time delay, simultaneous time delay teaching method (4) Being a model (3) Direct teaching method (3) Clear expression, physical and verbal cue techniques (1) Drama, role-playing (2) Basara [A kind of literacy technique in Turkey] (1) Syllable and sentence methods (1)

teacher coded as P11 can be interpreted as that the primary teachers focused more on reading skill.

"Assessment should be made not at the end of the study but in a place where the student does not see it at that moment within the activity. Assessment registration charts and students' notebooks give us information."P30

"Students are provided with reading activities, assessment activities can be conducted with texts that are suitable for their level of reading comprehension, and assessment activities can be carried out on digital content appropriate to their level." P11

Discussion, Conclusion, and Recommendations

From the results of the current study, it was determined that although the primary teachers and special education teachers have comprehensive knowledge about the groups included in the scope of special education, the special education teachers were found to make more explanations about inclusion students. It was also determined that the students diagnosed with inclusion were administered individualized instructional activities by both the primary teachers and special education teachers, but the primary teachers also included reading and comprehension activities due to their branch specialties. The difference of the special education teachers from the primary teachers was found to be that they knew the diagnostic processes very well and put them into action. While the primary school teachers described the situation of students who should be inclusion students but cannot as they have not been diagnosed as a serious problem, the special education teachers could solve these problems by using their content knowledge. The primary teachers mostly stated that the sound-based sentence method

is suitable for students who need special education, and the special education teachers stated that individual methods should be tried for each student. When the difficulties faced by both the primary teachers and special education teachers in the process of initial literacy teaching were examined, the problems of forgetting sounds, difficulty in learning consonants, and problems in comprehending the syllable unit came to the fore. It was determined that the instructional adaptations performed by both the primary teachers and special education teachers using different methods and techniques were similar, but the special education teachers presented richer content through materials. The same is true for assessment, and it is an important result that the special education teachers used more detailed assessment tools specific to the field.

In the current study, which examined the opinions of the special education and primary teachers on inclusive education, the discussion about the results is presented holistically.

Many developments experienced in the context of inclusive education in Turkey have enabled primary teachers to improve themselves in inclusive education. According to the results of the current study, primary school teachers are also aware of the groups in the inclusive education category, although not as much as special education teachers. However, special education teachers are more advantageous in this regard as they are more competent in the diagnosis process. Due to the necessity of inclusive education, the ability of both mainstream education and special education teachers to work in cooperation has gained importance. Therefore, the content of teacher training programs is of great importance (Da Fonte & Barton-Arwood, 2017). The main difference between special education and mainstream education teachers in inclusion practices is that special education teachers can benefit from

Table 6.

Participants' Opinions About Adaptations for Special Education Students

Theme 4. Adaptations for Special Education Students			
	Instructional Adaptations	**Materials**	**Assessment**
Categories	**Codes**	**Codes**	**Codes**
Primary teachers	Embodied applications such as writing in sand, play dough, finger paint, etc. (8) Visual and auditory activities (5) Games (3) Effective activities (3)	Interactive video applications (4) Visual cards (5) Puppet (1) Embossed uppercase, lowercase letters (2) Literacy games (3)	Oral response (3) Gap-filling (1) Evaluation forms (2) Written assessment (3) Psychological and academic assessment scales (1) Reading and dictation (4)
Special education teachers	Tracing and cutting cards for writing (2) Visual-matching cards (2) Using live objects (2) Embodied applications such as letter costumes, videos for writing in the air, etc. (3) Cartoon characters (1) Smart board (3) Pocket size letters, magnet letters (2)	Text-image matching (4) Syllable bingo (1) Visual cards (5) Magnetic letters (2) Smart board and computer (3) Sand pool (2) Wooden letter cubes (1) Sound-making materials (1) Student-specific materials (1)	Criterion-dependent tools (6) Check lists (5) Homework check list (2) Writing what is said (2) Performance-centered methods (3)

their content knowledge to overcome problems. In a study conducted on this subject, the professional development needs of mainstream education teachers in terms of self-efficacy using resources and classroom activities were revealed and it was concluded that special education teachers were more competent in these matters (Buell et al., 1999).

Ekşi (2010) also reported that the attitudes of special education teachers toward inclusive practices are more positive than those of primary teachers. In the study by Scimeca (2008), teachers working in mainstream education attributed their reluctance to accept inclusive students into their classes to their lack of competences in inclusive education. The attitudes of teachers toward inclusive students vary according to their competences in inclusive education. Although teachers have a positive attitude toward inclusive students, they may experience anxiety about including them in their classes. For this reason, studies emphasize the importance of pre-service and in-service training in terms of teachers' self-efficacy (Leatherman1 & Niemeyer, 2005; Savolainen et al., 2012; Shippen et al., 2005).

In the theme of initial literacy teaching, while the majority of the primary school teachers thought that the sound-based sentence method applied in Turkey was suitable for inclusive students, the special education teachers recommended the use of different methods to attend to individual differences. When the difficulties faced by both the primary teachers and special education teachers in the process of initial literacy teaching were examined, the problems of forgetting sounds, difficulty in learning consonants, and comprehending the syllable unit came to the fore.

Şengül and Akçin (2010) stated that teachers do not adhere to a single method in teaching literacy, but they mainly use the sound and sentence analysis methods. These methods are the methods used in teaching literacy to children with normal development. There is no special method used for mentally handicapped children in Turkey. Başal and Batıt (2002) showed that teachers follow different ways in determining their goals for teaching literacy, that they usually use the sentence method in teaching literacy, but they also benefit from different methods when necessary, that teaching is difficult without the support of the family, and that there are problems such as equipment shortage and lack of resources. One of the remarkable findings from the research on special education is that teachers expect support in teaching literacy to children with autism (Eliçin & Yıkmış, 2015). In the study by Deliveli (2020), it was revealed that all of the participating teachers adopted a student-centered approach and carried out their literacy activities in a way that took into account the needs of students with intellectual disabilities.

Koretz (2004), on the other hand, stated that the process of literacy teaching in special education is affected by teachers' personal backgrounds, experiences, and educational conditions rather than a standard program. In this regard, Brownell et al. (2017) research, it was concluded that group work and coaching training designed for special education teachers to give reading education to primary school first grade students increased the quality of teachers' vocabulary teaching and fluent reading studies.

In-service trainings should be organized in which primary teachers and special education teachers can work collaboratively on the issues of special education and inclusion.

Different literacy teaching methods should be employed for inclusive education and resource books and materials should be provided for students and teachers to this end.

Family guidelines and trainings should be organized in order to ensure the participation of the family in the process.

Teachers should be encouraged to prepare student-specific materials.

The current study was conducted with the participation of teachers as a phenomenological study in the qualitative research design. Other studies can be designed in the student-centered case study design to examine students' process of literacy development.

Action research can be conducted on the development of primary teachers' special education competences and inclusive education attitudes.

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