

# Teachers' Opinions on the Attending of the Hearing-Impaired Students in the Inclusion Environment and the Resource Room Services

Elif AKAY\*

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**Abstract:** Examine the perspectives of teachers on inclusive practices is important in terms of planning and implementing the support services. The purpose of this research is to examine the opinions of classroom and branch teachers who have hearing loss students in their classrooms on mainstreaming practices and support services. Phenomenology model was used in the study. A focus group discussion was held. The participants of the research are 6 teachers working in a primary and secondary school. The themes of the research; (a)views on the physical environment and the number of students, (b)views on the components of the support education service, (c)views on the performances of students with hearing loss in the inclusive environment. Participants stated they that observed improvements in the social adaptation and academic skills of students with hearing loss in the inclusive environment. As a results, it can be said that planning support education systematically and in accordance with student needs, presenting it by field specialist teachers, informing classroom/branch teachers about students with hearing loss and establishing cooperation with support education teachers have an important place on the development of academic and social skills.

**Keywords:** Hearing-impaired students, cochlear implants, inclusion, resource room service, primary and secondary school teachers.

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\*  Corresponding Author: Anadolu University, Turkiye, [elifakay@anadolu.edu.tr](mailto:elifakay@anadolu.edu.tr)

## Introduction

Inclusive education practices have started with the increase in student diversity in educational environments. In this process, teachers are expected to be more creative, solution-oriented and work as a team. Although the process of transition from integration to inclusive education has spanned nearly a century, when teachers' opinions are examined, it is seen that there are still problems waiting to be solved in practice.

Students with hearing loss have participated in the integrated environment in a variety of ways over the years, according to an examination of their participation. Integration methods, which were offered as an alternative program at the time, were considered by primary school instructors to be part of the boarding school program. The teachers stated that the fact that the educational environment requires oral language skills limits the social interactions of students with hearing loss; therefore, it would be appropriate for them to receive special education (Craig & Salem, 1975). When mainstream practices were started, primary school teachers recommended that intensive support education services be provided for students' academic development with severe hearing loss (Reich et al., 1977).

In the inclusion programs, primary school teachers perceived this practice as education in an educational support service room or a separate classroom (Lampropoulou & Padeliadu, 1997). In this process primary school teachers reported that students with hearing loss have problems in acquiring academic skills and verbal communication, they are labeled by their peers and cannot socialize. They emphasized that the course materials in the educational environment were insufficient and the classes were crowded (Cambra, 2002; Coladarci & Breton, 1997; Kluwin, 1999; Miller, 1995; Ramsey, 1997; Watson, et al., 1999). Teachers also expressed concerns regarding the collaborative application of support services stating that there were problems in implementing the individualized education programs (IEP) (Goddard, 1997). Some teachers stated that they did not have enough knowledge of students with hearing loss and that students with hearing loss should work with special education teachers (Keith & Ross, 1998; Nowell & Innes, 1997; Stinson & Antia, 1999). It has been suggested that the teachers' perspectives/beliefs on the issue of inclusion, their problem-solving skills, creativity and success in teamwork were decisive in shaping these views (Sall, 1999). When the inclusive education was started, especially the teachers who were informed before the study expressed a positive opinion about the placement of students with hearing loss in this environment. Since these teachers received education before the study, they expressed that they considered themselves adequately knowledgeable about the effects of hearing loss on language and learning (Pérez-Jorge et al., 2021).

Some teachers working in cooperation had different opinions on education and students with hearing loss. Teachers noted that working in cooperation

required a lot of time and increased their workload. In addition, the teachers stated that the undergraduate education did not adequately prepare them for inclusive practices, and this situation limited their professional competencies for students with hearing loss.

In the inclusive process, it is seen that there are still teachers' opinions that crowded classrooms cause problems in practice and that there is no systematic resource room service for students with hearing loss (Aslan, 2019; Bowen, 2008; Eriks-Brophy & Whittingham, 2013; Gurgur & Uzuner, 2010; Mpofu & Chimenga, 2013; Nĩmante & Ekša, 2020; Slobodzian, 2009). In the national literature; support education teachers of students with hearing loss, different disability groups and gifted students stated that students can show academic and social development with resource room applications. Teachers in these studies, on the other hand, stated that the physical conditions, teaching materials, frequency, and duration of the application were insufficient and that they had difficulty working with various disability groups (Aslan, 2019; Atmaca & Uzuner, 2020; Caglar 2016; Cevik & Yagci, 2017; Gurgur et al., 2016; Pemik & Levent, 2019; Tunali-Erkan, 2018; Unay, 2015; Yazicioglu, 2020). Teachers stated that they had difficulty in creating suitable IEPs for the level of students with hearing loss. Teachers reported that the IEP teams experienced problems in fulfilling their responsibilities required by the collaboration process and on issues concerning the adaptation of materials and educational processes (Gallegos, 2016; Kol, 2016; Sarikaya & Borekci, 2016; Yazicioglu, 2020). Research results from past to present, both in the international and national literature, show that teachers have started to develop a positive attitude towards accepting students with hearing loss of inclusion programs.

The attitudes concerning the acceptance of students with hearing loss to the classroom are taking a positive turn. However, there are still problems related to limited information about students with hearing loss, crowded classrooms, insufficient course materials, lack of cooperation in the IEP process, and lack of systematic support services. To solve these problems, it is necessary to make physical arrangements in the inclusion environment. The provision of systematic educational support services also plays an important role. The number of students in the classrooms and the noise in the physical environment need to be reduced. An interactive seating arrangement that will facilitate the development of oral language skills and an efficient listening environment has to be created (Madhumitha & Dawson, 2021; Yazcayir & Girgin, 2019). The academic development of students with hearing loss in the inclusion environment should be promoted with the educational support services (Akay, 2015; 2018; Kale & Demir, 2017; Unay, 2015).

Early diagnosis, cochlear implant applications, and preschool education programs that enable students with hearing loss to acquire language and

communication skills at an early age make it possible to place these students in the inclusion classrooms (Marschark & Hauser, 2012; Miller, 2015; Percy-Smith et al., 2018). In our Turkey, there is an increase in the number of students placed in the inclusion environment. According to the formal education statistics of the Ministry of National Education (MEB), there are 319 332 students in the inclusive programs in the 2020-2021 academic year, of which 114 991 are at primary school, 144 769 at secondary school and 59 572 at high school level (MEB, 2021). It is important to determine the opinions reflecting the experiences of primary school and branch teachers in revealing the nature of applications in inclusion environments where there is a change in teaching technologies and developments in hearing aids. The teachers in this study are working at primary and secondary schools affiliated to the Ministry of National Education (MEB). Hearing aids were given to students with hearing loss in these teachers' classrooms at an early age, and they received family education and preschool inclusion training at a research and implementation center.. Those students whose communicative and academic development improved sufficiently continued their education in primary and secondary schools affiliated with the Ministry of Education. Educational support education services for these students are offered in this center by teachers who have studied Hearing-Impaired Teaching. This center, established in 1982, is the first of such centers in our country to offer systematic inclusion and support services room programs.

As a result, it is expected that determining the perspectives of primary and secondary school teachers working in a Ministry of Education-affiliated school will contribute to the literature and shed light on educational support room service practices in a 38-year-old institution with a culture of inclusion. This study aims to examine the opinions of primary and secondary school teachers who have students with hearing loss in their classrooms, regarding inclusion practices and resource room services. To this end, answers were sought for questions such as (a) What are the primary school and branch teachers' experiences regarding the suitability of the inclusive environment for students with hearing loss? (b) What are the experiences of primary school and branch teachers regarding the reflection of the resource room services on the academic and social skills of students with hearing loss?

## **Method**

### **Research Design**

This study is phenomenological research. Phenomenological research aims to reveal the experiences and perceptions of individuals related to a phenomenon and the meanings they attach to them (Bogdan & Biklen, 2007; Yildirim & Simsek, 2021). Therefore, reveal the experiences of the primary school and branch teachers of students with hearing loss who are offered resource

room services systematically, about this service and the variables that cause these experiences. Focus group discussion is a process in which participants interact with each other and answer questions by making use of each other's answers (Yildirim & Simsek, 2021). A 66-minute focus group interview was conducted at the beginning of the 2020-2021 academic year to increase the depth of the participants' responses and provide a wealth of data. In this study, the duration and experiences of the participants working with students with hearing loss in the research environment are different from each other. This diversity enabled teachers to benefit from each other's views and experiences and to make more explanations. As a result, comprehensive and in-depth information was obtained from the participants on inclusive practices and resource room services.

### **The Participants of the Study**

The participants of the study were determined by the criterion sampling method from the purposive sampling method (Yildirim & Simsek, 2021). Teachers were asked to work in a public school, have a student/s with hearing loss in their class, and voluntary participation criteria. The demographic and professional information about the teachers by the 2019-2020 academic year is presented in Table 1.

**Table 1.**

*Demographic and Professional Information about Teachers*

<b>Participants</b>	Akin	Selin	Ayşe	Omer	Cem	Ece	Ali	Can
<b>Gender</b>	M	F	F	M	M	F	M	M
<b>Age</b>	50	57	51	53	47	53	47	53
<b>Tenure</b>	20	28	26	24	24	27	20	29
<b>Grade Taught</b>	1	2	3	3	4	4	5-6-7-8	5-6-7-8
<b>Number of Students</b>	36	36	35	35	32	32	40	40
<b>Number of students with hearing loss</b>	1	1	1	3	1	1	7	10
<b>Experience in Working with Students with Hearing Loss (in years)</b>	8	16	11	3	12	20	9	8
<b>The courses/seminars taken in the field of special education (MEB)</b>	None	None	None	None	None	None	Special ly gifted students	None

As shown in Table 1, the participants in the study consisted of 4 teachers from the primary school level and only Turkish and Social Studies teachers from the secondary school level. The teachers range between 47 and 57 and have 20 to 29 years of teaching experience. Apart from one of the secondary school teachers, none of the teachers participated in any courses/seminars in the field of special education offered by the Ministry of National Education. The research and application center provides in-service training to participating teachers about the devices used by students with hearing loss and their academic status at the beginning of the semester. They are also provided with technical and professional support when they encounter problems with hearing aids and the academic development of students with hearing loss. Information about the students in the inclusion environment is presented in Table 2.

**Table 2.**

Information about the Inclusion of Students with Hearing Loss

Class	Student	Gender	Hearing aids		The Teacher
			Right	Left	
1. Class	Student 1	F	CI	BEHA	Akin
2. Class	Student 2	M	BEHA	CI	Selin
3. Class	Student 3	F	BEHA	CI	Ayşe
	Student 4	M	BEHA	CI	Omer
4. Class	Student 5	F	CI	BEHA	Cem
	Student 6	M	BEHA	BEHA	Ece
5. class	Student 7	F	CI	BEHA	Ali and Can
	Student 8	F	BEHA	BEHA	
	Student 9	M	BEHA	BEHA	
	Student 10	F	CI	BEHA	
	Student 11	F	CI	BEHA	
6. Class	Student 12	F	CI	BEHA	

\*CI: Cochlear implant

\*\*BEHA: Behind-the-ear hearing aid

As shown in Table 2, 8 of the students with hearing loss are girls and 4 are boys. 3 of them use a behind-the-ear hearing aid in both ears, while others have a cochlear implant and a behind-the-ear device. All the students were placed in the inclusive environment after receiving family education and pre-school education at the center.

## Research Environments

**An environment of inclusion.** It is a public school where inclusive practices have been carried out by providing resource room service by the research center since 1982. The hearing aids of the students at the school were checked regularly at the research and application center every day.

**The environment in which resource room is offered.** The Center, which provides resource room service, was established in 1979. The support education service is offered 4-5 days a week by the teachers of the hearing-impaired working at the Center. Teachers continued their full-time school education with hearing-impaired students at Center outside the support training service hours. Students with hearing loss participated in an early intervention program that covered early diagnosis, equipment of hearing aids, and family education before being placed in the inclusion environment. They also enroll in an inclusive environment for three years in preschool. In this process, the administration of the Center, the teacher for the hearing-impaired, an audiologist and a psychologist monitor the level of social adaptation, communication skills, and academic performance of the students with hearing loss and place eligible students in public school.



## **Data Collection**

In phenomenological studies, data collection methods such as observation, written material and visual data can be used to give a deeper meaning to the phenomenon (Yildirim & Simsek, 2021).

The research data were collected through the participant information form and the focus group interview audio recordings prepared for the teachers of the students with hearing loss who received resource room service in the classroom. The participant information form and interview questions were prepared by the researcher with 25 years of experience in resource room applications offered to students with hearing loss. Two field experts assessed the validity of the questions according to the interview criteria with 41 years and 28 years of experience in the education of students with hearing loss. The interview questions are:

- Do you think that your school is suitable for the implementation of inclusion practices? Explain the reasons.
- Do you think that the student/s with hearing loss in your class is/are eligible for the inclusion application? Explain the reasons.
- What can you say about the social adaptation of the student/s with hearing loss in your class?
- What are your opinions about the academic success of student/s with hearing loss in your class?
- What do you do when student/s with hearing loss in your class have difficulty understanding the lessons?
- How do you create IEP content for students/s with hearing loss in your class?
- Do you think that student/s with hearing loss in your class should receive educational support services? Explain the reasons.
- What are your thoughts about the hours of the student's visit to the educational support services room?
- What do you think about the duration of the educational support offered to student/s with hearing loss in the support services room?
- What do you think about the efficiency of the cooperation with educators who offer a support education in the educational support service room to your hearing-impaired student?
- Do you think that the educational support service room is beneficial for the student/s with hearing loss in your class? What do you think these benefits are?
- If you think that there are problems with the educational support services offered to your student/s with hearing loss, what do you think about the causes of these problems?
- What are your suggestions for inclusion applications and educational support services to be more effective?

## **Analysis of the Data**

In phenomenological studies, it is important for the researcher to analyze the data without reflecting on his previous experience and knowledge. Content



analysis was used in accordance with this design (Yildirim & Simsek, 2021). First, the focus group interview recording was transcribed. The codes were reached by considering the research questions from the findings obtained from the transcripts. It has been brought together according to the similarities and differences of the codes. As a result of the analysis of the data, such themes emerged as (a) opinions on the physical environment and the number of students in a classroom, (b) opinions on the components of the resource room services, (c) Opinions on the performance of students with hearing loss in the inclusive environment. There was a 96% consensus between the two field experts on the themes.

### Credibility and Ethics

For the validity and credibility of the study, one of the participants were asked to verify the accuracy of the focus group interview breakdowns and excerpts were directly quoted from the participants' speeches in the findings (Yildirim & Simsek, 2021). Teachers participated in the study voluntarily. The identities of the participants have not been disclosed. Before the research, the required permits were obtained from the ethics committee (30237869-050.99-E.58697), the school administration, and the participants. The teachers were informed about the content prior to the interviews.

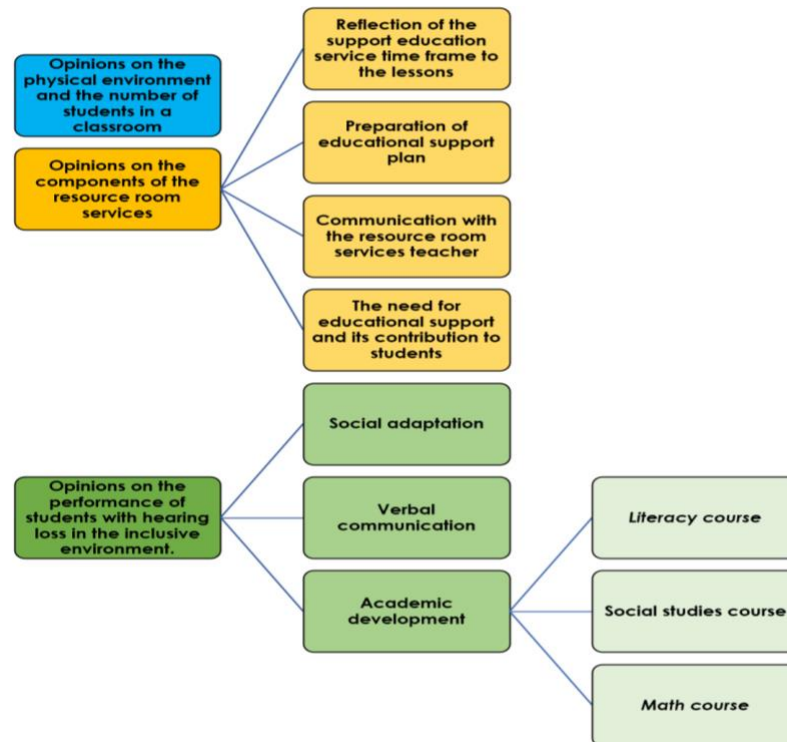
### Findings

It is determined that the participants had positive opinions, concerns and suggestions regarding issues such as the physical condition of the inclusion environment, the educational support services and the performance of students with hearing loss in the inclusion environment. The themes and sub-themes of the research are presented in **Figure 1**.

#### *Research Themes and Sub-Themes*

Themes

Sub-themes



## Opinions on the Physical Environment and the Number of Students in the Classrooms

One participant with the alias Cem commented on the physical conditions of the inclusion environment as follows "...visual things are very important for students with hearing loss. And the smart board provides a lot of support in this sense..." regarding access to the materials. All participants expressed concerns about overcrowded classrooms. Ali comments on the situation by saying, "... Sometimes I have lessons in which I can't give my students a say. Let's say you want to involve your students in the classroom discussions. When you have 40 students, you can't always do it." The seating layout also inhibits the participation of kids with and without hearing loss in the session, according to participants.. Akin explains how they are trying to overcome this problem by saying "...We change the seats of these students and place them in the front rows so that they can hear us better." Ayse points to the classrooms' inadequate insulation, which leads to noise in the classroom and says, "The insulation of the classrooms can be a problem sometimes. Outside noise or the noise inside the classroom can be a problem."

## Opinions on the Components of the Educational Support Services

**Reflection of the support education service time frame to the lessons.** All participants state that they consider it appropriate that the duration of the support service be 40 minutes. However, regarding the timing of the support

service, Ayse notes that they had problems with students leaving in the middle of class in the previous year, "... last year the support sessions were held in the middle of the lesson sometimes. That was very difficult. The pupils miss half of the session and disrupt the learning flow...." "But that was a very short period," Omer says, explaining how the problem was fixed. However, during the assistance sessions, Akin, Selin, and Ali say they had problems with the lessons taught in the classroom.. For example, Omer says "The children are a little reluctant. Especially if there is something fun to be done in the classroom." And adds "They don't want to go to the educational support service room in the physical education classes at all. Other than that, the children like going there..." and proposes a solution by saying "It would be more convenient to hold these sessions during the time of free activities." Selin also supports this suggestion. Cem shares the solution he came up with by saying, "Last year, we determined the thing... the hours Z went to the sessions and we fixed the Physical Education hours according to that schedule." One of the participants, Ece, states that the time of the support education service was appropriate. "Even if you pick the student up during the class, we don't want them to miss the classes. There's nothing to do. They're going to get support training anyway. So they will be the ones who waive." At the secondary school level, Ali points out to the problem specific to secondary school by saying. "If the sessions coincide with the same class all the time, that is also a problem."

**Preparation of educational support plan.** The participants state that they make the arrangements according to the student with hearing loss, use the IEP plan as a template for this, and do not need to prepare an IEP for each lesson. For example, Omer says "I'm not doing it because they don't need an IEP for the Social Sciences class... we did it for Turkish and Math." Can emphasizes that instructors should pay attention to adaptations in the IEP and says "We're making IEP plans, you know. These students have no problems with intelligence. What is required of us is to reduce the content. But we interpret it differently. We make an IEP plan for the child, we make it easier and we conduct separate examinations. Like, we give an eighth grader the sixth grade exam, we channel them this way."

**Communication with the resource room services teacher.** Two participants (Selin and Ece) state that they had face-to-face communication with the support education teacher. Selin says "We do it face to face. If there are problems with the support service teacher or me in terms of the child's success and behavior, we make sure we talk about it." Cem says that they communicate in writing "We are sending a note to our friend at the center. So that they work a little more on that topic. That kind of communication is comfortable. They also ask us. Like, 'What should we pay attention to? What should we focus on?'" Can says they communicate by phone "For example, when I see that a student is lagging behind in class, I call the support service teacher. For example, I ask them to 'Focus on a certain topic.' When the student is back, the problem turns out to be solved. You being here, therefore

is a very important thing." Besides the contribution of efficient communication between teachers, teachers with the aliases Akin, Ayse, Omer and Cem mention concerns regarding lack of communication with educational support teachers. Ayse, for example comments on the communication issues by saying, "It depends on the kind of colleague, to be honest... Let me think... last year, our communication was not efficient. Don't get me wrong, this is not only about the other party. It has got a lot to do with our side, as well... It has to be more frequent. And it needs to be on a lecture basis. It was there in the beginning but then we had a breakdown in communication."

**The need for educational support and its contribution to students.** All participating teachers agree that students with hearing loss should receive resource room services. They state that the educational support service offered to students with hearing loss in their classrooms make significant contributions to the students' progress. For example, Ece comments on the benefits for the Turkish classes, "I believe that it contributes greatly to the Turkish Language course, most of all. Because they work one-on-one, on vocabulary, sentence structures, reading comprehension and diction. I see that this has a lot of benefits in one-on-one training," Ayse explains the contribution of educational support services by saying "I believe the students are more closely monitored there. Because when I talk about the problems my student is having, and tell them they could focus on it, they do it. They handle it right away. It is a big deal." Omer underlined the contribution of educational support services by saying, "We deliver a program based on the characteristics of the general population. But there, they tailor it according to the student. Selin adds, "I don't consider this as my own success since the level of students I came across is already satisfactory. I believe that my contribution to what you achieve is a drop in the ocean." Ali relates: "It was two or three years ago, we had this student who did not come from Center directly but had received education there. He was from another city. There was a huge difference. The student had a lot of problems with the lessons, adaptation and comprehension" to underline the differences between the students who receive educational support at the center and those who don't. It was observed that the participating teachers did not make any suggestions about what needs to be done to increase the quality of the educational support service and expressed their opinion that the support provided was sufficient. Selin explains the reason for this as "I have 35-36 students. I'll make a drawing for you. My hearing-impaired inclusion student is just like the rest of my kids. This is something I've been doing for a long time. There are children without hearing loss that are further behind compared to them. The child is doing well in the classroom. So you ask yourself what more can I ask for. I mean, if something else had been done to the others, you know what I mean? Because we can see it all." Cem emphasizes that these practices could be useful for the hearing children too by saying "I wish there was something similar for the other kids, too."

## Opinions on the performance of students with hearing loss in the inclusive environment

**Social adaptation.** All teachers at the primary school level expressed positive opinions about the social harmony between students with hearing loss and their peers. Selin states her opinion as follows, *"From what I observed since the day I came here, I can say that students with hearing loss are readily embraced by their hearing peers. I think of my previous kids. They were all loved and protected. They played together during the breaks. They've never had any trouble making friends like this."* While Akin, Omer and Cem agreed, Selin, Ayse and Can believes this is partly related to the students' personalities. Selin says they sometimes experience problems in students' social adaptation but they overcome these issues through cooperation with the families. The two participants at the secondary level said hearing students display a negative attitude towards students with hearing loss. Ali says, *"As they grow up, the kids become more introverted in their relations with their peers... As they grow self-consciousness, they also develop a kind of anxiety. Female students cover their hearing aids with their hair, for example. Especially, in the 7th and 8th grades. If sitting in the front rows is an indicator of anything, they don't prefer that."*

**Verbal communication.** The participants state that the students' verbal communication with hearing loss in their classrooms was sufficient. Cem says, *"The students transferred here from the Center already have gone through some kind of assessment. I mean, I didn't experience much of a problem."* Can says, *"I didn't even notice them until the IEP meeting."* Akin explains his solution to the problem: *"They have difficulty articulating some letters and some words. This is the main problem. This affects their writing, too. The best way to fix this is to stress each and every phoneme, repeatedly."* He sums up by saying, *"They cannot produce some words. I mean, no matter how hard the kids try, they can't do it. So we accept it that way,"* admitting that the suggested strategy may not always work. Ayse, Omer and Ali draw attention to the fact that the vocabulary range of students with hearing loss is limited. Omer says, *"The biggest problem of the students with hearing loss in the Turkish lessons is that they have a more limited vocabulary range compared to their peers. They say, 'I have never heard anything like this.' And then we have to explain it."* On the same issue, Ayse suggests, *"... They must read books to overcome their limitations."* Selin supports Ayse by saying, *"A student with hearing loss who is used to reading can perform better than a student without hearing loss."* Two participants claim that the communication gaps they had with students were their fault. Can says, *"At the secondary school level, the problems we experience are mostly on us."* I cannot communicate with those students when I turn to the board." Ali agrees by saying, *"That may be because we walk to the back of the class and talk from over there."*



**Academic development.** All participants contend that the students with hearing loss in their classrooms have the academic competence to adapt to the inclusion environment. Selin shares his opinions on the issue saying, *"The children who come to us are just fine. Academically speaking, I am satisfied with their performance. I think they're adequately prepared. Because they can even outperform other children who are not hearing impaired - not all of them, of course. They can be more successful than the others."* Ece also believes *"that their assessment is appropriate. They really adapt well. Personally, I haven't had any problems so far. They're doing just fine,"* she explains. Ayse agrees and says, *"I also think so. I mean, no student I've ever taught has made me say they are not fit to be here or I wish they weren't here."*

**Literacy course.** The participants agree that the students with hearing loss in their classrooms had problems mostly in the literacy course. Three teachers (Selin, Cem and Ali) stated that their students had difficulty in following up their reading. Cem says *"Our biggest problem in literacy is with reading texts, when we have to read, the child misses it, and they can't help it. Because the other kids keep forgetting that they have to speak really loud for the students with hearing loss to hear them."* To overcome this problem, he interrupts the reading: *"I stop the reading and ask the student to read the text louder again."* Ece and Cem explain the problems that students with hearing loss experience in understanding what they read and grammar rules by saying, *"As the courses proceed, they start having problems with grammar."* As a solution, Ece suggests communicating with the families, *"We tell them they have to study this. Through this family education, they overcome these problems to a certain extent."* Selin exemplifies her strategies in class: *"Sometimes, on a one-on-one basis, I explain the subject... We give them supplementary materials so that they revise the topics... I ask all the class to help their peers."*

**Social studies course.** Teachers with the aliases Akin, Ayse, Omer, Cem, Ece, and Ali say that the students with hearing loss have difficulty understanding abstract concepts. Ayse, Omer, Cem and Ece say this is true especially for the Social Studies course. Ayse says, *"There was this student, M once. Generally speaking, he is a successful student in the eighth grade now. I observed with that student that he had problems in the Social Studies course. We were unable to overcome that problem. He just wasn't able to get it right."* Cem talks about the abstract concepts in the course by saying, *"In the Social Studies, erm... let me put it this way. It is a course on general knowledge. There are also problems with the teaching of the course. For example, in the lesson on Sivas Congress, there are so many articles. Sometimes, even the teachers forget them. The Social Studies course is problematic even for the students without hearing loss."* Ece explains how the abstract concepts in the Social Studies course combined with the issues in reading comprehension cause problems by saying, *"They have problems in the Social Studies course because it is based on knowledge of the Turkish language."* On the problems concerning teaching the abstract concepts in the Social Studies course, Can says, *"I usually prefer a visual*

*approach in teaching. I always prepare before the lessons and give the kids the printouts of the texts. I aim to give them a chance to at least read the text and follow the lesson if/when they cannot hear me and if they are willing to do so, they can make up for the loss on their own through this strategy... I also use story telling a lot. But the method I trust the most is the concept map. For example, with the 8 grades, I'll start the History of the Revolution. I ask students to start a section by assigning pages to certain dates in their notebooks as soon as I begin the course. This enables them to follow the sequence to start with."*

**Math course.** Ayse and Omer say the students with hearing loss have problems understanding the problems in the Math courses. Ayse says, "If the problem requires interpretation, we see that they experience problems." Omer thinks, "They will have a harder time in the coming years. There is this concept called next generation questions. The questions are way too long. When you give them the four mathematical operations, they can solve the problems even faster than their friends. But with the next generation of questions, they may have problems when it comes to long texts that require interpretation." He concludes that the problem will get worse as the next generation questions require combining reading and problem solving skills.

Selin, Omer. Cem and Ece, who are elementary school teachers, agree that students' problems increase as they move up to higher grades. Omer says, "As they move up to higher grades, as the topics get more abstract, they experience problems due to weaker abstraction skills. It's like, the student was very successful in the 1st grade. Even better at the 2nd grade. Still good, and not so bad in the 3rd and 4th grades." Ece thinks, "Compared to hearing children, they try to catch up with a little difference in their progress." Selin agrees with Omer and adds, "It deMath coursepends on the child, but I agree with my colleagues. The subjects in the 1st, 2nd and 3rd grades are easy."

## Discussion, Conclusions, and Recommendations

The beginning of inclusive practices to eliminate discrimination between students has brought with it various problems. In the studies on teachers' opinions from the past and the present, it has been found that there are problems related to the physical conditions of the inclusion environment, the characteristics of the hearing impaired student(s), and the quality of the resource room (Aslan, 2019; Atmaca & Uzuner, 2020; Cambra, 2002; Coladarci & Breton, 1997; Gurgur et al., 2016; Slobodzian, 2009; Watson et al., 1999; Yazicioglu, 2020). In many studies, the focus of these problems and possible solutions have been shown to be related to teachers' perspectives on inclusion (Aslan, 2019; Eriks-Brophy & Whittingham, 2013; Nımante & Ekša, 2020). In this study, the participants' opinions and experiences about the inclusion practices and the contributions/problems of the educational support service were examined in depth through focus group interviews.



About the physical condition of the inclusion environment, a participant stated that interactive whiteboards in classrooms facilitate access to visual and audio-visual materials. This finding is important because it shows that the problem identified in the past research concerning the insufficiency of course materials has been mitigated with technological developments (Miller, 1995; Ramsey, 1997). Teachers have not talked about the use of realia. However, similar to the results of many studies conducted from the past to the present, (Miller, 1995; Nımante & Ekša, 2020; Pérez-Jorge et al., 2021; Slobodzian, 2009), the participants stated that the classrooms were crowded. All participants emphasized that this situation negatively affects the participation and interaction of students with hearing loss in the lessons. They stated that they are trying to solve the problem by placing the students with hearing loss in the front rows in order to enable them to follow the interaction in the course. In the literature, this kind of physical arrangement is reported to play an important role in facilitating participation of students with hearing loss in classroom interactions (Mpofu & Chimenga, 2013). However, the fact that there are only curtains and panels that can provide sound insulation in the classroom could not solve the noise problem. Therefore, it can be said that the classrooms in this study do not have the characteristics of low classroom size and minimizing indoor and outdoor noise sources (Yazcayir & Girgin, 2019).

It is emphasized that the provision of out-of-class or in-class support services in an inclusive environment facilitates the adaptation and acceptance of students with hearing loss (Miller, 2015). All participants stated that it is sufficient to apply the support education service every day for 40 minutes of class time. These opinions are compatible with Article 25 Clause a of the Special Education Services Regulation, which states that support education services should not exceed 40% of the total weekly class hours (Special Education Services Regulation, 2018). However, the participants have different opinions concerning the time of the support education services. A participant states that they arrange the weekly timetable in coordination with the support education teachers to ensure that students with hearing loss are able to attend both the lessons and the educational support activities. This arrangement can be used to eliminate the problems of cooperation between the specified class teachers and support teachers mentioned in the literature (Nımante & Ekša, 2020; Slobodzian, 2009).

Support education services are performed in secondary schools at the same class time (Special Education Services Regulation, 25/d, 2018). However, this situation causes the student to not always attend the lesson of the same branch teacher in the support education room service in the secondary school classes. This result is consistent with the opinions of secondary school teachers in Tunali-Erkan's (2018) study. Therefore, it can be said that the provision of support education service at school time is an important problem because primary and secondary school students cannot attend some classes. This problem can be

solved by scheduling the support education in the regulation during extracurricular hours or on weekends.

Making individualized education plans (IEP) is another important component. Literature reveals that teachers have difficulty preparing suitable-level IEPs for students with hearing loss (Sarikaya & Borekci, 2016). On the other hand, the participants of this study state that they can organize the content according to the characteristics of their students by using the IEP template during the planning process. A participant points out that oversimplifying the course content for a student with hearing loss while realizing the goals set by the IEP limits the student's progress. This opinion may be due to the teachers' inability to correctly evaluate the performance of students with hearing loss and to adapt them appropriately to their level. Research underlines that the IEP process should be carried out in cooperation among teachers to achieve the goals stated in the educational program (Gallegos, 2016; Goddard, 1997). None of the participants in this study expressed opinions favoring the participation of educational support teachers in creating the IEP during this study. Therefore, it cannot be said that they were collected in accordance with the rules of the IEP development unit.

Another component of educational support service is communication between teachers. Literature emphasizes the need for teachers to communicate in the inclusion environment to conduct the program (Nimante & Ekša, 2020). Participants stated that they communicate with support education teachers face-to-face, in writing and on the phone to share information about their students, but this communication is not systematic. The fact that the participating teachers and support education teachers have different responsibilities during the workday limits their communication. This finding is similar to primary school teachers' views in Bowen's (2008) study that they cannot take the time to communicate with support education teachers.

In studies focused on support education teachers, teachers emphasized the difficulties of working with different disability groups and students at different grade levels during the day (Atmaca & Uzuner, 2020; Gurgur et al., 2016). They stated that it is not enough to provide education services to students on certain days of the week (Aslan, 2019; Gurgur et al., 2016). Support education teachers stated that they had limitations in finding materials and professional competence (Nimante & Ekša, 2020; Tunalı-Erkan, 2018). Contrary to these results, none of the participating teachers made any suggestions for the support education service to be more qualified. The participants' formation of this opinion can be explained as follows; support education teachers gain significant experience by continuing their full-time teaching jobs with students with hearing loss in the research and application center during the hours outside of this service. In addition, they have offered the educational support service to the inclusion students at the grade level that they work. Therefore, it can be said that they also prepare and implement the training program and

the materials more easily. It is thought that the work of teachers working in the resource room as stated above will reduce the problems identified in the researches.

The participants of this study are similar to the current research results in the literature (Atmaca & Uzuner, 2020; Gurgur et al., 2016; Pérez-Jorge, et al. 2021) study stated that the inclusion students in their classrooms were successful in their social adaptation and communication skills. Modern hearing aids, technological developments, early diagnosis and equipment of children with hearing aids and early education opportunities allow students with hearing loss to develop compatible oral skills with their hearing peers (Percy-Smith et al., 2018). This can be explained by the fact that the students with hearing loss who are placed in the classrooms of the participants were fitted with hearing aids at a young age, just like all the other students in the Center, and that they all received three years of family education and one-on-one inclusion education beginning at the age of three, as well as individual support and educational support in primary school.

In contrast to previous studies (Cambra, 2002; Kluwin, 1999) that indicated a negative teacher view of the academic growth of students with hearing loss in the inclusive setting, all participants in this study indicated that the students with hearing loss in their classes are at an academic level that allows for participation in the inclusive setting. While these views of the participants lead us to believe that students with hearing loss are compatible with the inclusive setting, they also carry the risk of not being expected to perform at higher levels if their oral language and academic development are considered sufficient.

Despite all the efforts made to support the social adaptation and academic development of students with hearing loss in the inclusion environment, all the participants state that the students had the greatest difficulty in their literacy. It has been observed that the problems are most frequent in vocabulary, abstract concepts and reading comprehension skills. Teachers emphasized that the problem in other basic courses is also related to reading-comprehension skills. This finding is similar to teachers' opinions that students with hearing loss have limited vocabulary and expressive language skills (Mpofu & Chimenga, 2013). In order to solve this problem, it is necessary to continue the support education service in cooperation (Akay, 2018) and to inform class/branch teachers about the characteristics and needs of students with hearing loss (Pérez-Jorge et al., 2021). In-service trainings also informed participants in this study in the Center on the characteristics of students with hearing loss, the devices they use, the physical environment and language development.

As a result, teamwork emerges as the key to success in inclusion applications. For students with hearing loss, this team consists of a primary school/branch teacher, a teacher for the hearing-impaired, a guidance counselor, a school

administrator and a family. In this study, participants state that despite crowded classrooms and occasional disruptions in communication and issues about the timing of the educational support service, students with hearing loss achieve social adaptation and academic development. To disseminate these views, ensure that children with hearing loss are diagnosed and equipped as early as possible, receive family education, and are educated in inclusive settings where educational support services are systematically provided from preschool age. Educational support teachers need to be informed about the devices, educational programs, oral language skills and academic development of students with hearing loss. By evaluating these developments, they should be able to determine and use materials that are appropriate for the needs of the students and achieve the goals of the courses. They should also maintain systematic communication with the primary school/branch teacher.

Based on the research results, the following suggestions for practice can be made: For elementary and secondary school teachers who have hearing-impaired students in their classrooms, the physical conditions, including the number of students and soundproofing, should be improved. In addition, current knowledge and experiences of students with hearing loss should also be increased through in-service trainings. When all this functioning is ensured, primary and secondary school teachers can develop the perspective that can improve hearing-impaired students socially and academically.

In future studies, longitudinal research can be carried out to create a culture of inclusion in schools. The content of IEPs prepared for students with hearing loss can be examined and suggestion can be made for planning educational support education. Portals can be created where integration applications are executed. Portals can contribute both to teachers and students in the field of practice and to the examination of the educational process.

This study is limited to hearing-impaired primary and secondary school students who were fitted with hearing aids at a very early age, who received family education, and who were enrolled in elementary school after inclusion education conducted between the ages of three and six and who were offered supportive educational services by teachers specialized in teaching hearing-impaired children. Because this study is qualitative, the results cannot be generalized..

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**Author**

**Contact**

Elif AKAY  
Student with hearing loss students, Inclusion,  
Professional development.

Anadolu University, Faculty of Education, Department  
of Special Education, 26100 Tepebasi, Eskisehir

E-mail: [elifakay@anadolu.edu.tr](mailto:elifakay@anadolu.edu.tr)