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The Lived Experiences of Teachers with Visual Impairments in the Inclusion of Students with Visual Impairments: A Phenomenological Study*

Hatice ŞENGÜL ERDEM** **Ayşe Dilşad YAKUT*****

Abstract. This study aims to reveal the lived experiences of teachers with visual impairments (VI) in the inclusion of students with VI. In this phenomenological study, data were collected from 8 teachers with VI through semi-structured interviews and analyzed by content analysis using a qualitative software program named MAXQDA20. The six themes identified from the content analysis were underlying issues in inclusion, personal guidance of teachers on students with VI, critical evaluation of inclusion, from diagnosis to the IEP implementation, the appropriate model of education for students with VI, and teachers' sense of inclusion. The findings revealed that teachers with VI contributed to the inclusion of students with VI. Furthermore, they emphasized system-related issues preventing inclusive practices and made critical evaluations concerning practices in inclusive settings. Based on the findings, inclusive classrooms and resource rooms should be equipped with educational tools (i.e., the braille alphabet, assistive technologies, tactile graphs and maps), teaching staff and their training should be enhanced, and school buildings should be designed as physically accessible and supervised by special education teachers who have expertise in VI or experience in working with students with VI.

Keywords: Inclusion, lived experience, phenomenological study, students with visual impairments, teachers with visual impairments.

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** Orcid ID: https://orcid.org/0000-0003-2933-8198, Assist. Prof. Dr., İstanbul Medeniyet University, Department of Special Education, Turkey, hatice.erdem@medeniyet.edu.tr
*** Orcid ID: https://orcid.org/0000-0001-8277-6213, Assist. Prof. Dr., İbni Haldun University, Department of Educational Sciences, Turkey, ayse.yakut@ihu.edu.tr

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1. INTRODUCTION

In the last few decades, there has been a paradigm shift toward the education of students with disabilities in general education schools. This shift named "inclusion" has changed the education systems of many countries. From a broad perspective, inclusion is defined as the education of students with disabilities in general education schools rather than special education schools (De Boer, Jan Pijl, & Minnaert, 2011). There is a similar conceptualization in the special education legislation of Turkey, which defines inclusion as educational settings developed to enable individuals with special needs to interact with other individuals without disabilities and achieve educational goals at the highest level (Decree Law No 573, 1997). The Special Education Services Regulation (SESR, 2018) further guides inclusive education and teachers' responsibilities in inclusive practices. As specified in Article 72 of the SESR (2018), these responsibilities are to facilitate the social acceptance of inclusion students in general education schools, assess students in terms of their individual and developmental differences, implement an individualized education plan (IEP), and put teachers in a critical position for effective inclusive practices.

Attitudes of teachers are a determinant of successful inclusion. Avramidis and Norwich (2002) proposed two factors influencing teachers' attitudes toward inclusion: student-related and teacher-related variables. The type of disability is one of the student-related variables (Lifshitz, Glaubman, & Issawi, 2004). As the population of students with visual impairments (VI) who are placed in inclusive settings has increased (Miyauchi, 2020), research interests in the inclusion of students with VI have increased to precisely the same extent, showing that teachers are positive about the inclusion of students with VI (Alghazo & Naggar Gaad, 2004; Lifshitz et al., 2004; Glaubman & Lifshitz, 2001). Teachers have more positive attitudes toward the inclusion of students with VI if they feel prepared (i.e., have acquired necessary skills in pre-service training) to teach these students. A study conducted in Turkey indicated that pre-service general education teachers did not believe that they had acquired skills to teach students with VI efficiently (Kesiktaş & Akçamete, 2011), which can be a detrimental factor for inclusion. As revealed in the study by Asamoah, Ofori-Dua, Cudjoe, Abdullah, & Nyarko (2018), teachers need in-service training on effective inclusive practices. Although teachers have positive attitudes toward students with VI, teachers are less willing if they do not feel competent in teaching these students (Ravenscroft, Davis, Bilgin, & Wazni, 2019). Teachers' willingness to remove the obstacles to teaching is the most important determining factor in the inclusion of students with VI (Ravenscroft et al., 2019). Furthermore, direct and/or indirect experiences with students with VI are another factor influencing teachers' attitudes. Teachers' positive attitudes increase as they gain experience in teaching students with VI (Miyauchi, 2020). These confusing findings require specialized research, which reveals new perspectives on the inclusion of students with VI.

Another student-related factor is the severity of the disability (i.e., low vision, blindness), which affects teachers' attitudes toward the inclusion of students with VI. More

specifically, teachers are against the full-time inclusion of students with severe VI since it requires differentiated instructional adaptations (Clough & Lindsay, 1991; Ward, Center, & Boncher, 1994). In other studies, most teachers believed that the full-time inclusion of blind students would not expand their circle of friendship and would not improve their social adjustment (Mushoriwa, 2001; Wall, 2002). Moreover, many teachers indicated that full-time inclusion was not beneficial for students who were braille readers since they might not be able to comprehend concepts at the same speed as their peers and, unfortunately, the majority of teachers were not happy to have blind students in their classes (Mushoriwa, 2001). As mentioned in the above research, the severity of VI can be regarded as an obstacle itself.

Research on inclusive education has predominantly focused on student-related factors, and less attention has been paid to teacher-related factors. Examining teacher-related factors, particularly their experiences arising from their disabilities, would allow us to examine the same basis through another lens. For example, Dvir (2015) researched the views of teachers with physical disabilities on the inclusion of students with disabilities and examined how teachers with disabilities constructed their professional identities. One of the important findings was that teachers described their disabilities as a "unique value" and perceived themselves as models since their personal experiences could be viewed as an inspirational source for students with disabilities, particularly improving students' self-image (Dvir, 2015). Additionally, teachers used their personal experiences to promote inclusive policies, increase the awareness of their peers, and modify their inclusive practices (Dvir, 2015). In another study by Lewis, Corn, Erin, & Holbrook (2003), both school administrators and students with VI remarked on the credibility of the advice given by teachers with VI as they relied on first-hand experience. Furthermore, parents of students with VI found these teachers as "excellent role models" since they taught students with VI to be independent and hopeful about their future (Lewis et al., 2003). The common theme that emerged from the studies focusing on teachers with disabilities and their students with disabilities was that teachers became role models for their students in terms of personal image and coping strategies they used.

Visual impairments can affect one's life in two domains: social domain and academic domain. Regarding the social domain, students with VI felt that they were not respected and treated fairly by their typically developing peers (Asamoah et al., 2018). Students with VI felt less stigmatized when both the climate of inclusive settings and teachers' attitudes were positive (Hess, 2010). A qualitative single-case study (Opie & Southcott, 2018) conducted with a secondary school student with VI reported that the student was a victim of physical and social bullying and did not feel like he belonged to his school. However, in another study, students with VI felt included whenever they fit in with their counterparts, and their social experiences were enjoyable (Jessup, Bundy, Broom, & Hancock, 2017). Overall, teachers can create an environment where students with VI fit in with their peers.

Visual impairments can also influence students' academic domains. Students stated that teachers should have enough time for their differentiated needs (Asamoah et al., 2018). Students experienced difficulties accessing assistive support systems and large format materials and felt excluded from classes, particularly in science, mathematics, and physical education. Studies indicating that students with VI did not fully participate in science courses (Koehler & Wild, 2019) and needed instructional and environmental adaptation, tactile and audible materials to experience science courses effectively (Teke & Sözbir, 2019) confirmed these findings. The research emphasized the capability of teachers to select appropriate adaptations for successful science and mathematics experiences of students with VI (Klingenberg, Holkesvik, & Augestad, 2019; Koehler & Wild, 2019). Inclusive education is the fundamental pillar of education. To further narrow down the research scope, we focused on the experience of teachers with VI in the inclusion of students with impairments to provide a closer look at this complex phenomenon.

Inclusion of Students with VI in Turkey

The number of students receiving special education services in Turkey was 398,815 in the 2019-2020 academic year (Disability and Ageing Statistical Bulletin, 2020). Among students receiving special education services, 74.1% are educated in inclusive classrooms (i.e., preschool, primary school, lower secondary school, and high school level), 13.5% are educated in special education classes, and 12.4% are educated in special education schools (Disability and Ageing Statistical Bulletin, 2020). Those numbers show that priority to educate students with disabilities is given to inclusive settings.

In the 2019-2020 academic year, a total of 1174 students with VI were educated in 18 primary schools, 18 lower secondary schools, and 2 vocational high schools in Turkey (National Education Statistics, 2020). According to the SESR, lastly amended in 2020, students with disabilities, including those with VI, can be placed into three educational settings in Turkey. These are (1) general education classrooms, (2) special education classrooms in general education settings, and (3) special education schools with and without residential facilities (SESR, 2018). In terms of the education of students with VI in general education classrooms, general education teachers are responsible for providing accommodations, modifications, and supports written in the individualized education plan. Certain rules should be followed in evaluating the achievement of students with VI educated in general education classrooms. More specifically, questions with pictures, figures, and graphs should be evaluated by touching, describing, or preparing equivalent questions instead of these questions (SESR, 2018). Concerning the education of students with VI in special education classrooms of general education buildings, either general education curriculum or special education curriculum is implemented by special education teachers from the 1st grade to the 4th grade, except for the Foreign Language and Religious Culture and Ethics courses taught by content area teachers (SESR, 2018). A maximum of 10 students can be included in a special education class. Starting from the 5th grade, these students continue their education

either in inclusive or special education classrooms (SESR, 2018). Regarding the education of students with VI in special education schools, there are residential and non-residential facilities at primary and lower secondary school levels. Similar to special classrooms of general education buildings, a maximum 10-student per class rule has been applied in special education schools.

The Purpose and Research Questions

In this context, this study aims to reveal the experiences of teachers with VI in the inclusion of students with VI. Three research questions that guided this study are as follows: (1) what are the opinions of teachers with VI on inclusive practices of students with VI?, (2) how do teachers with VI influence inclusive practices of students with VI?, (3) what do teachers with VI think about the ideal education of students with VI?

2. METHOD

Research Design

A qualitative phenomenological research design was used to reveal the experiences of teachers with VI. Phenomenological research focuses on the meanings people make of their lived experiences with the phenomenon (Brantlinger, Jimenez, Klingner, Pugach & Richardson, 2005). Therefore, we considered this approach the most appropriate since it would allow us to gain a deeper understanding of the participants' lived experiences. Ethical approval for this study was obtained fromthe Social Sciences Scientific Research Ethics Committee of İstanbul Medipol University (decision number 20, on April 5, 2021).

Participants

We used purposive sampling to recruit participants through the Association of Blinds of Turkey, where all participants are members. The participant group consisted of eight teachers with VI of 90% and more. The criterion sampling technique was also used for recruitment. The following inclusion criteria were determined: (1) having VI and (2) working with a student with VI in inclusive settings. Table 1 gives the participants' descriptive demographics.

Table 1

Research Participants

Participants	Gender	Age	Marital Status	Education Degree	Occupation	School Type	Seniority in years
T1	Male	40	Married	Bachelor's	G&PC*	V&TAHS**	13
T2	Male	35	Married	Bachelor's	G&PC	Anatolian High School	9
T3	Male	34	Married	Bachelor's	Social Science	Middle School	6
T4	Male	34	Single	Bachelor's	Social Science	Middle School	11
T5	Female	40	Married	Bachelor's	G&PC	Elementary School	17
T6	Male	47	Married	Bachelor's	G&PC	Anatolian High School	21
T7	Female	37	Married	Bachelor's	Turkish	Middle School	18
T8	Male	53	Married	Bachelor's	G&PC	V&TAHS	26

*Guidance & Psychological Counseling ** Vocational & Technical Anatolian High School

Data Collection and Procedure

Data were collected using semi-structured interviews. Due to the COVID-19 pandemic, all participants were given a chance to select face-to-face or telephone interviews. While two participants opted for the face-to-face interview at the official building of the Association of Blinds of Turkey, other participants opted for the telephone interview. All interviews were conducted in a single session with a duration ranging from 50 to 70 minutes. The interviews were held by the first author in April 2021 and digitally recorded. Two hired transcribers transcribed the interviews verbatim.

The first author read a statement explaining the aim of the study, gave brief information about the researchers, and asked to sign a written consent form and complete a brief demographic form before the interviews. While two participants who were interviewed face-to-face signed the consent form, the other participants who were interviewed via phone gave their verbal consent that was digitally recorded.

The open-ended interview questions aimed to reveal the experiences of teachers with VI in the inclusion of students with VI and how their disability influenced their practices to include children with the same disability. In line with this main aim, the questions centered around five key areas are their thoughts on inclusive practices in general

education settings based on their experiences as general education teachers, how their personal and professional experiences enhance inclusive practices of students with VI, their self-evaluation in communicating with families of students with VI, their contribution to increasing the effectiveness of the IEP as members of the IEP team, and their suggestions for effective inclusive practices of students with VI. Throughout the interviews, the interviewer was flexible and open to the issues raised by the participants, and other questions were added according to the flow.

Data Analysis

The data were analyzed by content analysis via MAXQDA20, a qualitative software program. During the analysis, the four main steps were decontextualization, recontextualization, categorization, and compilation (Bengtsson, 2016). The first step, decontextualization, aimed to become familiar with the data by reading the transcripts before searching for the smallest unit of meaning. This unit, called "code," represents insights the study aims to explore from the data. The coding process was conducted inductively by creating a code list through line-by-line coding. The code list was gradually changed as more transcripts were introduced into the process. The next step, recontextualization, aimed to reread transcripts by keeping the purpose of the study in mind to include more meaningful units or exclude unimportant parts of transcripts, which is necessary for data reduction. The following step, categorization, involves grouping the coded units and identifying categories and initial themes. When two researchers did not agree on categories and themes, they discussed the discrepancies until reaching a consensus. The final step, called compilation, involves the writing process. The researchers attempted to capture the essence of the participants' discourse and how the participants experienced the phenomenon and transformed it into perceptions. In the writing process, the researchers returned to the original text and used direct quotes from the participants.

Credibility and Ethical Issues

To ensure credibility, member checking, peer debriefing, and collaborative working involving intercoder reliability were used in the present study (Brantlinger et al., 2005; Cresswell, 2012; Cresswell & Miller, 2000). Deciding on an adequate sample size, providing verbatim transcription, and using a qualitative software program (Whittemore, Chase, & Mandle, 2001) were strategies supporting credibility. Member checking is a credibility strategy that requires participants' involvement at two levels. The first level is conducted before data analysis and interpretation to confirm the transcripts, while the second level is conducted after the data analysis to have participants check the accuracy of findings (Brantlinger et al., 2005). In the present study, the researchers asked one participant to validate the description of data, fairness and representativeness of interpretation of data for the accuracy of themes. The first author conducted the member checking process in the form of an interview with one of the participants. More specifically, the participant was asked to comment on the appropriateness of quotations from verbatim transcription to check whether they

reflected his perspectives. Peer debriefing was another strategy to ensure credibility in the study. The researchers asked a colleague who was familiar with phenomena and an expert in qualitative research methods to give feedback on the analysis and results of the study. After the study was completed, the researchers obtained written feedback from the peer debriefer. To prevent potential bias in data analysis and interpretation, 25% of the total transcripts were coded independently to establish intercoder reliability. An agreement was calculated via MAXQDA20, and intercoder reliability was 91%. Regarding ethical concerns, the researchers had prepared a detailed informed consent form including information about the purpose of the study and indicating that the participants had a right to withdraw from the study at any time, their participation was voluntary, data were confidential and could be used for scientific purposes, and their anonymity was protected.

3. FINDINGS

The present study aimed to reveal the lived experiences of teachers with VI in the inclusion of students with VI. The six themes identified from the analysis were as follows: underlying issues in inclusion, personal guidance of teachers on students with VI, critical evaluation of inclusion, from diagnosis to the IEP implementation, the appropriate model of education for students with VI, and sense of teachers in inclusion. Figure 1 presents all themes and sub-themes of this study.

Theme 1: Underlying Issues in Inclusion

Issues in Training

Three teachers expressed their concerns about in-service and pre-service training of teachers and how training issues impacted inclusive practices, particularly the inclusion of students with VI. General education teachers do not acquire the knowledge and skills necessary to work with students with VI due to the lack of courses designed for the education of students with VI in pre-service teacher education programs of universities. More specifically, teachers emphasized the roles of universities in disseminating courses, such as the braille alphabet and mathematics, which would advance the academic skills of students with VI. One teacher explained this issue by saying the following:

"Even teachers do not know braille, they should have graduated by taking many special education courses. They shouldn't ask me, 'How can I teach students with VI?'" (T6)

System Related Problems

One of the most important issues that all teachers mentioned was system-related problems preventing inclusive practices. The lack of professional support from schools and Guidance and Research Centers (GRCs) is found under this sub-theme. As one teacher explained:

"In fact, there should be an expert in each district to provide support on assistive technologies at GRCs. To meet this need, there should be at least a training specialist." (T1)

The teachers stated that insufficient inspections at Special Education and Rehabilitation Centers (SERCs) reduced the quality of additional support provided to students with VI. The need for a more comprehensive inspection was also emphasized. A teacher explained this need as follows:

"SERCs must be strictly inspected. Inspections should be conducted not by regular inspectors but by experts in the field of visual impairments to detect what the center can provide and cannot provide to students with VI." (T2)

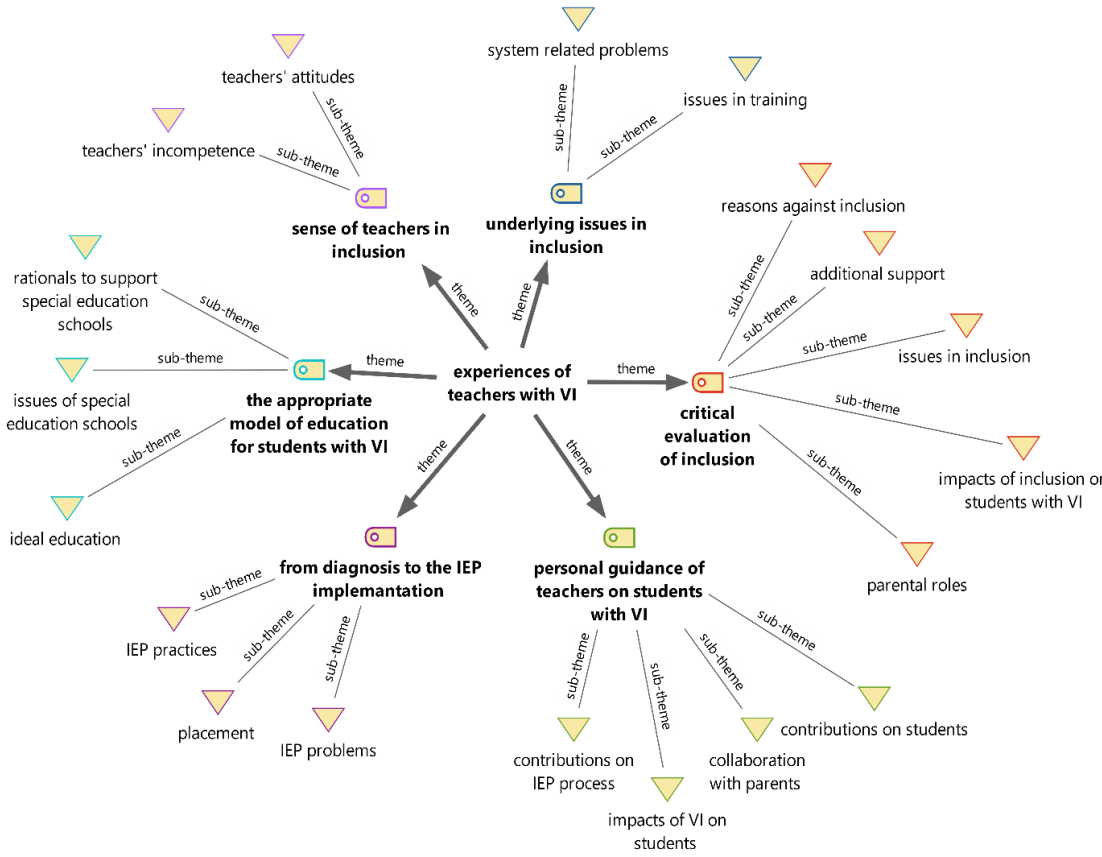

Figure 1. *Experiences of Teachers with Visual Impairment*

Another system-related problem that emerged from the data was the lack of cooperation between schools and SERCs. The following statement illustrates this sub-theme:

"Everyone does whatever they want. The topics covered in SERCs are not covered in schools, while the topics covered in schools are not covered in centers. This situation

sometimes can create a contradiction in the child's mind. As far as I can see, it (this situation) can delay learning. While working at the GRC, I experienced this kind of things. While the teacher is trying to teach literacy skills in school, different things are taught to the child, or nothing is taught in centers. The child is wasting her/his time by going to centers. It is not an adequate support because the child only learns in the school and does not repeat what he has learned there." (T5)

Another concern is the operation of resource rooms in inclusive settings. Uncertainty in scheduling instructional time in the resource room and the lack of equipment and materials in these rooms are major concerns reported by teachers. A teacher clearly expressed it by saying the following:

"Yes, there are resource rooms in schools; my colleagues working in resource rooms teach children during the class time. For example, an English literature teacher gets the child in the Turkish lesson and says, 'I will teach in the resource room." In this process, the child actually loses the (Turkish) lesson. Okay, teachers teach one-on-one in resource rooms. Or the math teacher comes and gets the student from any lesson, saying he will teach in the resource room. During this time, the student is kept away from the class. So, there are problems in planning." (T4)

Theme 2: Personal Guidance of Teachers on Students with VI

Impacts of VI on students

Most teachers stated that students with VI had difficulties accepting their disabilities and did not know how to cope with the traumatic experiences caused by their disabilities. They also mentioned their inability to reduce these traumatic impacts even if empathic relationships were established with students with VI. A teacher stated this difficulty, saying the following:

"First of all, children think that blindness is such a terrible thing. But they have no idea that blindness is something to overcome or is adaptable and relatively removable. However, they have problems with accepting their visual impairments. They experience significant problems in social communication. Let's say, you are the teacher of a child who has a complex related to his visual impairment. While it is difficult for him to share this problem even with me, who has the same problem, it is harder to tell you. He has problems expressing himself to teachers." (T2)

Collaboration with Parents

The majority of the teachers stated that as parents met teachers with the same disability as their children, their thoughts that their children would never have a job and independent life skills gradually changed. This change makes it easier to accept differences in their children's development. An example supporting this sub-theme is presented below:

"In the beginning, they do not believe and accept that their children can do something. They don't even accept that teachers are visually impaired. This is a very painful thing for

children, a serious loss. My visual loss for them… I think they have noticed their children, I think so. They think that if we say, "visual impairment," this child may be useless. They think their children are different. Yes, there is a difference compared to other kids. Yes, he cannot see, but they think his deficiency will be with him throughout his life, and he will need a mother, a father, or someone around him. They don't believe he can stand on his own feet. After seeing me, they say, "Oh, our child can do it, he can succeed, so my child can be a teacher." (T7)

The teachers also stated that their presence at school reduced parents' concerns that their children would not be accepted in inclusive settings. A teacher expressed this by saying the following:

"In other words, the fact that I also have a visual impairment and the same disability creates the idea that I am always with them. Therefore, they form an idea that I will protect and defend their benefits every time, I feel it. Our job is easy in this sense." (T8)

Contributions on Students

One of the most frequently mentioned experiences is the contributions of teachers to students with VI. Facilitating access to social opportunities outside of the school, teaching orientation and mobility skills, and increasing students' self-confidence in communicating with their peers and expressing themselves are contributions that emerged from the data. An excerpt from a teacher's statement illustrates these contributions in the following way:

"… For example, we went outside together, we went down the stairs together, and we went even home from school. We came to school from home together. You know, we played games with his friends during the recess. This child's movements have changed so much that I cannot express this in words. He had never stepped out of the classroom in the year that I started. With this kid who had never seen, we went out of the classroom, went down the stairs, and went outside and inside. When the child starts to go up and down, I can't express his happiness." (T7)

Contribution to the academic life of students is another area that all teachers expressed obviously. These contributions include taking a facilitating role in planning education, making expectations from students more understandable for them, supporting students in using the braille alphabet, motivating students before exams, and encouraging them to participate in the class. The teachers elucidated these ideas with the following quotation:

"Being able to express oneself, the ability to speak, and self-realization that he/she is an individual. For example, I asked students, 'Do you raise your hand, too?' The student said, 'No, I don't because I can't get up to the blackboard.' I talked about this issue with teachers. Please allow children to answer the question. If it (the answer) needs to be written, write it on the board, or his friend should write it on the board, but the child should give the answer. Let the child realize that he/she is a student in the classroom or know that he/she

should answer the question. These are very important things. I think these are very important for the child to be able to express himself, be able to say what he knows or be able to talk about things, even if it is wrong, and participate in a discussion in the classroom." (T7)

Trying to change teachers' attitudes in a positive manner and informing teachers about instructional, assessment, and physical adaptations to meet the needs of students with VI are the other contributions of teachers. Excerpts from a teacher's statement highlight these contributions in the following way:

"The classroom teacher said, 'I have never worked with such a student. What can I do for him? You can do the following, 'You can have the student sit in the front row because he has low vision. I said, 'If you have the student sit in a place where he can see, he can easily follow the lesson and try to see what you have written.' Or, 'when the student learns how to read and write, he can write what you say if you say what you are writing on the board." (T5)

Another contribution is supporting students in their future plans, such as selecting their occupation, being a role model, and supporting them in gaining basic skills that will support their professional lives. An excerpt from a teacher's statement is as follows:

"For example, one of my students had anxiety; she wanted to become an English teacher but had worries such as 'Can I do it? Can I teach?' Her English was really good. Her English teacher was very interested in her, and her English was very good because she was talented. I said, 'Why not?'. I tried to mitigate these feelings by talking to her and providing some guidance. I worked on overcoming her fears. Finally, she was convinced." (T5)

An additional contribution is supporting students in using assistive technologies for VI. One teacher said the following:

"Well, then he was losing his vision very fast. By using different glasses, for example, there are such glasses at the Turkish Association of the Visually Impaired, telescopic glasses. Well, I have shared this information with his family." (T3)

Contributions on IEP process

A total of four teachers shared their contributions to the IEP practices of students with VI. Guiding on the IEP development, determining the aims according to the current performance of students, and suggesting exam accommodations are the contributions mentioned during the interviews. One teacher explained this, saying the following:

"For example, I told the teacher of the Religious Culture and Morals course, 'You don't need to prepare an individualized education program for a student with a visual impairment. In this sense, I made the teacher comfortable once. Then I said to the math teacher, 'Dude, you need to think a little more. For example, there are tactual metric sets to describe a triangle, you should do a search. You have to exercise a little bit more to teach geometric shapes." (T6)

Theme 3: Critical Evaluation of Inclusion

Resource Rooms

All teachers shared their experiences and thoughts about resource rooms. Excerpts from a teacher's statement are as follows:

"I will give examples from my content area. I explain the shape of the earth to 6th-grade students. For instance, I bring a figure of the earth into the classroom or reflect the earth's shape on the board. I explain it to children, and they all understand. However, the student with a visual impairment may not understand. I can explain it to the student one-to-one in the resource room." (T4)

The majority of the teachers also indicated that resource rooms could be used to improve mathematical skills and concepts. One teacher stated the following:

"Students with visual impairments should be supported in the resource room only for the math and science courses. Otherwise, you cannot teach anything because most of these courses are taught on the board." (T3)

Parental Roles

The majority of the teachers stressed that inclusive practices could be more successful with parents' positive attitudes and their collaborative participation. The teachers expressed this idea as follows:

"Actually, children are getting lost in inclusive classrooms if they don't have a conscious parent or are not supported by their parents, or if they don't get any support from outside." (T3)

Impacts of Inclusion on Students with VI

From the teachers' perspectives and experiences, students with VI are sometimes adversely affected in inclusive settings. These effects are displayed in social and academic skills. The teachers' statements are listed in the following way:

"Because children with visual impairments cannot play, other children run around, play ball and hide-and-seek, but children with visual impairments cannot adapt. I even ignore educational aspects. I think children with visual impairments cannot play games during the play period, and they experience social problems at later ages." (T7)

Issues in Inclusion

The majority of the teachers mentioned problems in inclusive practices and emphasized the need to solve problems in order to make schools more inclusive. An excerpt from a teacher's statement to elucidate the above-mentioned problems is as follows:

"The child fails, and his self-confidence also decreases. There are serious problems in practice and inadequacies in inclusive practices. I think that the inadequacy of teachers, the lack of the pursuit of administrators, and the fact that guidance and psychological counselors only chase after paperwork cause these children to be ignored." (T4)

Additional Support

The teachers stated that conflicts between schools and SERCs hindered the academic achievement of students with VI. An example of this statement is presented below:

"I have been a teacher for six years and have never heard, "We received very high-quality education in SERCs, and I have never heard that the education process, eee, is consistent with general education (inclusive education) and is coordinated with it." (T3)

Perceptions of Inclusion

The teachers emphasized the importance of inclusion for students with special needs. Inclusion, as the least restrictive educational setting, improves the social skills of students and contributes to the learning characteristics of students with special needs. These perspectives are expressed as follows:

"...It is the least restrictive environment. I think it is good, especially for autism spectrum disorders and hearing impairments. Why? Because these children need to communicate... I think individuals with hearing impairments, since they use devices, need inclusion to be able to perceive sounds and talk to children without disabilities." (T1)

Reasons Against Inclusion

All teachers stated that students with VI should not be placed in inclusive settings in primary school when literacy skills are acquired. Inadequate training and resources offered to primary school teachers to teach the braille alphabet and basic mathematics skills were the most frequent rationale under this sub-theme. The teachers elaborated these ideas with the following quotations:

"Opportunities, infrastructures, physical environments, and teacher training... All of these are actually deficiencies here... If these were eliminated, there would be no need for schools for students with visual impairments. But while there are deficiencies here and if we persistently advocate that children should continue inclusive education, we will make a mistake here." (T8)

Theme 4: From Diagnosis to the IEP Implementation

Placement

More than half of the teachers expressed their opinions and experiences regarding the placement of students with VI. According to the teachers, deciding on the most appropriate educational setting requires more systematic assessments in GRCs. They also indicated that professionals in GRCs should be in charge of deciding on the placement rather than parents. The following quotation illustrates this point of view:

"It should definitely not be left to the discretion of parents. It should be evaluated by experts. For example, this student can continue inclusive education. The decision on placement should not be left to parents because parents do not have enough information about their children in this sense. They cannot be in the position of deciding on it." (T2)

IEP Practices

The majority of the teachers suggested for which courses the IEP should be prepared for students with VI. They stated that if students knew the braille alphabet, there was no need to develop the IEP for most courses, except for mathematics and geometry, which needed to be individualized. The following quotation of a teacher is an example of this:

"... If a child knows the braille alphabet very well or does not have any other intellectual disabilities, we can individualize the instruction in mathematics... Maybe something can be done through individualized education in the math and science courses. I do not think it is necessary to prepare an individualized education plan in any of the lessons other than this. You know, only if a student's background is strong." (T6)

Additionally, the teachers emphasized the importance of the IEP team meetings to recognize students' current performance, strengths, and skills in which they needed support.

"... I don't know whether it's enough. Of course, it helps. After all, thanks to IEP meetings, at least we get to know those children. We can understand them and exchange ideas about what we can do. We, as teachers, act together." (T4)

IEP Problems

A total of six teachers emphasized problems in the IEP implementation. The most frequently mentioned problems were not being able to develop an IEP in line with students' performance and education services, leaving IEPs as written documents rather than fully implementing them. A teacher highlighted this problem, saying the following:

"Classroom teachers do basic assessments for children. Many GRCs include them (IEPs) on their websites, and teachers choose the appropriate one from the readily available ones, remove the inappropriate one, and prepare an IEP. So yes, they are examining the student. But in the strict sense, it is a bit more readily available IEP. I think many teachers have moved away from the idea of preparing a real IEP." (T5)

Theme 5: The Appropriate Model of Education for Students with VI

Ideal Education

Most teachers defined ideal education for students with VI as attending primary schools for students VI in the first step and then transferring them into inclusive settings. One teacher expressed his opinion as follows:

"At least we have switched to the 4 + 4 + 4 system, so they (students) should definitely take the first 4 years of education in a school for students with VI. They should learn the braille alphabet in terms of scanning sources, understanding what they read, and being able to read books freely. Now, technological developments have increased, such as voice systems, software, and mobile phone technologies. Although they have provided us convenience, it is much different for an individual to understand by listening than by reading." (T4)

For inclusion to be successful, criteria were also mentioned regardless of students' grade level. One teacher listed the criteria as follows:

"If a student with a visual impairment will receive his/her education in an inclusive classroom: 1) classmates should have disability awareness, 2) the teacher should know the ways of facilitating the education for the student with a visual impairment during the instruction, 3) a physical environment should be proper. In other words, an orientation that helps students find the classroom and go to the cafeteria, gym, and hall independently should be provided. Other than this, students should have educational tools that an individual with a visual impairment needs." (T8)

Rationales to Support Special Education Schools

The teachers provided rationales to support ideal education for students with VI. Many of them relied on their experiences, explaining how they used the skills they had acquired in schools for students with VI when they were educated in inclusive settings. One of the skills is expressing oneself and demanding accommodations from general education teachers in inclusive settings. The teachers illustrate this idea with the following quotations:

"Because they taught us these skills in the primary level special education school. For example, when you are taught geometry topics in mathematics, you will tell that teachers should not ask questions about these topics in the exam. As a justification, you will say that you cannot perform operations on the shape because you cannot see the shape. There are some tricks like this, and these tricks were taught to us." (T2)

The acquisition of self-care and independent life skills in schools for students with VI is another emerging rationale for supporting special education schools. A teacher's idea is given below:

"Orientation and mobility are very important concepts for us. And self-management is also a very important concept. In special education schools, education is given to children, starting from dressing to washing socks. In fact, special equipment is provided. It is aimed to raise an individual with a visual disability as a self-sufficient person." (T1)

Acquiring basic academic skills is another rationale for attending schools for students with VI at the primary level. An excerpt from a teacher's statement to justify this rationale is as follows:

"From using an abacus in mathematics to gaining the ability to perform operations, because they know mathematical symbols. It is not a skill that can be acquired through listening. It requires more practice. For example, we had math boxes. We used to learn numbers and perform operations with our math stones. Students gain such skills, of course, although they cannot gain further skills in mathematics, they can learn basic skills mathematics." (T4)

Being with peers with the same disability would help them accept their impairments and improve their self-confidence in schools for students with VI before their transition to inclusive settings. This emerging rationale is explained as follows:

"There is also a psychological dimension of this work. At least the child realizes he is not alone in this field. In other words, he realizes mistakes that can be made by his group of friends, and there may be a possibility to make mistakes." (T6)

Issues of Special Education Schools

Despite the opinion on the ideal education of students with VI in schools for students with VI, most teachers underlined that these schools had problems that might impact students adversely. They stated that receiving education in schools for students with VI for a long time made the transition of students with VI to inclusive settings and their full participation in social life difficult.

"If we are educated in schools for students with VI for a long time, we cannot adapt to normalization after a while. That's why I say that if a student has matured in the first four years and is not severely impacted, he/she should leave the school. Because when they continue for eight years, they can't adapt themselves to normalization." (T2)

Another issue was related to the current design and curriculum of schools for students with VI, as described below:

"When I say the first four years, from my point of view, I do not want to say that this place is perfectly equipped. It is not like that; it has huge deficiencies. It has shortcomings in terms of both educators and tools, and not everything is designed in tactile terms. Well, it is the same for primary school and middle school levels. For example, examining children's environment, it is not well designed physically. In other words, there are no tactile warnings on doors, corridors are not designed appropriately, etc." (T8)

Theme 6: Sense of Teachers in Inclusion

Teachers' Attitudes

A total of three teachers indicated that general education teachers' attitudes were an important factor behind the inclusive practices of students with VI. They are resistant to changing their attitudes. A teacher stated the following:

"Math, physics, chemistry, biology teachers are hostile to the child, you know. They said, 'Why did they place this (child) here?' I said, 'Who is 'this?" Let me say, even our existence cannot surpass their initial prejudice…" (T2*)*

Teachers' Incompetence

General education teachers' incompetence derives from both the lack of experience in working with students with VI and the lack of motivation serving as barriers behind inclusive practices for students with VI. A teacher stated this, saying the following:

"We invited the child, and the teacher tried the font size that the child could read, and it went like: a font size of 12, 14, 16. For example, he determined his font size and then gave his exams with larger font sizes. The teacher said, "Until that day, I have never thought about it." Actually, he is a young colleague. So, he's a colleague capable of doing it, but he didn't think about it. He didn't think about it because he had never had such a student or had anything like that around him. So, they (teachers) do not want to find a solution. They say, "I get him to pass his class somehow"... These kids are actually not the kids to get them pass. Children will be more successful when guided, perhaps, more than sighted children. When they are supported..." (T7)

Network Analysis of Qualitative Data

To create the visualized networks, we used the code relation visualization tool in MAXQDA, which creates a figure showing the co-occurring codes. The line size represents the strengths of connections between themes and sub-themes. Figure 2 presents the networks among themes and sub-themes that emerged from the data. The codes under the sub-theme of *system-related problems* were also coded under the sub-themes of other themes. The sub-themes of *perception of inclusion* have a bidirectional edge with the sub-themes of *ideal education*, *rationales to support special education schools*, and *system-related problems*. As a whole, the figure illustrates the interconnectedness of the sub-themes related to teachers' experiences in the inclusion of students with VI. Among these sub-themes, *system-related problems* are the most dominant sub-theme that emerged from the data.

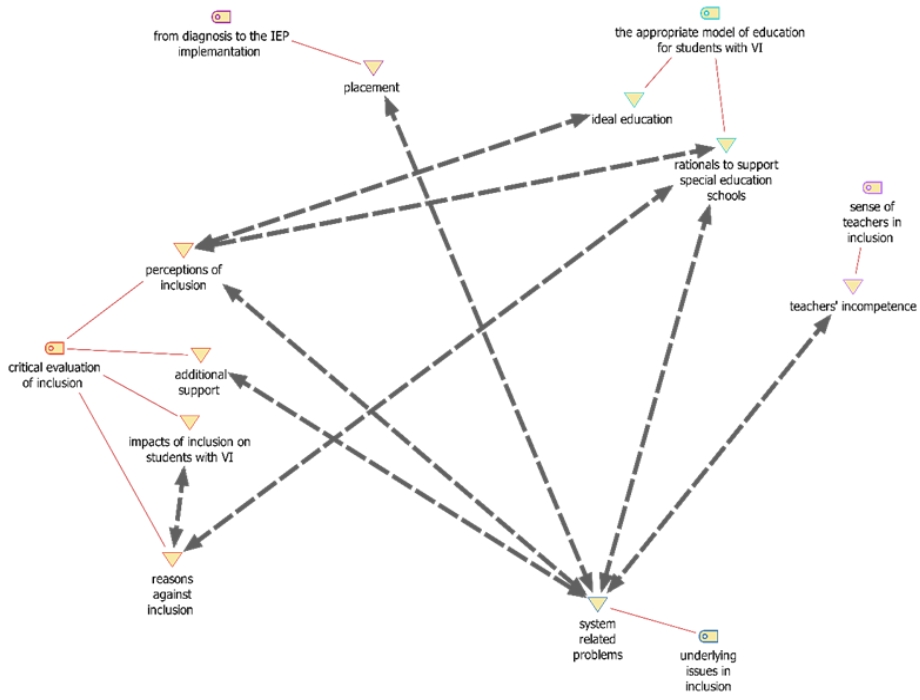

Figure 2. Connecting Lines Between the Sub-themes

4. RESULTS, DISCUSSION, AND SUGGESTIONS

Research on the inclusive education of students with VI has focused on teachers' attitudes, particularly in implementing accommodations and modifications, students' needs in the classroom, and opinions of teachers and students about the social and academic impacts of inclusion on students. Since teachers play a crucial role in implementing inclusive practices, teachers with VI can have more critical roles in the education of students with VI due to their lived experiences. However, less attention has been paid to the experiences of teachers with VI. In this context, the purpose of the present study is to reveal the experiences of teachers with VI in the inclusion of students with VI using a phenomenological research design. We aimed to discover the opinions of teachers with VI on inclusive practices for students with VI, understand how the lived experiences of teachers with VI influence inclusive practices of students with VI, and explore the ideal education of students with VI.

In this study, the findings under the themes of underlying issues in inclusion, critical evaluation of inclusion, teachers' sense of inclusion, and from diagnosis to the IEP implementation explained the first aim of the study, which was to explore the opinions of teachers with VI on inclusive practices for students with VI. According to the findings, the teachers made critical evaluations about diagnosis and placement at GRCs, the lack of courses about VI in pre-service teacher education programs, problems in implementing IEPs, the lack of materials and assistive technologies in general education classrooms and resource rooms, teachers' attitudes toward inclusion and negative impacts of inclusion on students with VI. It is clearly indicated that general education teachers do not have adequate skills and knowledge to include students with VI and they need to be informed about instructional adaptations, such as converted maps, charts, and graphs which foster tactile learning and printed materials with a larger font size. Furthermore, teachers should receive training on mobility and orientation, which enables students to move safely in school settings (Cox & Dykes, 2001; Kalloniatis & Johnston, 1994; Opie, Deppeler, & Southcott, 2017). Students with VI can be successful in mathematics with appropriate adopted materials and teaching strategies in inclusive settings along with qualified teachers (Asamoah et al., 2018; Klingenberg et al., 2019; Koehler & Wild, 2019; Rule, Stefanich, Boody, & Peiffer, 2011; Teke & Sözbir, 2019). This assumption was verified by our findings indicating that effective inclusion requires adaptations in mathematics and science classes. The utilization of simple adaptations may ensure the school performance of students with VI (Mayfield, McCormick, & Cook, 1996). Inaccessibility to resources is another finding supported by a study indicating that inaccessibility is experienced not only by students with VI but also by teachers with VI (Okungu, Griffin-Shirley, & Pogrund, 2019).

The findings under the theme of personal guidance of teachers on students with VI revealed the second aim, which is to understand how teachers with VI influence inclusive practices of students with VI. For example, teachers' presence in schools

facilitated the IEP process, increased collaboration with parents, and enhanced students' personal and academic development. Students with VI stated that their teachers, even without any disabilities, guide them in developing relationships with peers by acting as a bridge (West, Houghton, Taylor, & Ling, 2004). Research indicated that teachers' positive attitudes and contributions to students with VI increased as they acquired more direct and indirect experiences with students with VI (Wall, 2002). From this perspective, facilitating the educational process of students with VI is not surprising because teachers have first-hand experiences due to their VI, like their students. A study emphasizing the importance of advice from teachers with VI supports our findings (Lewis et al., 2003). It is possible to conclude that our findings will contribute to the literature examining how teachers with disabilities influence the inclusive practices of their students.

The findings under the theme of the appropriate model of education for students with VI illustrated the third aim of the study, which is to discover the thoughts of teachers with VI on the ideal education of students with VI. The teachers emphasized that students with VI should be educated in schools for students with VI at the primary level to gain necessary skills, such as expressing themselves, accessing the braille alphabet, accepting their disabilities, and achieving self-care skills. After acquiring these skills, the transition from special education schools to inclusive settings is strongly recommended by all participants. Although it is widely accepted that students with VI should be educated in inclusive settings, they require the same opportunities in general education schools. If the education system is unable to meet these needs, teachers with experiences as an individual with VI suggested this kind of flow for the education of students with VI. As a sensory impairment, VI is a disability that general education teachers show the greatest openness for inclusion (Alghazo & Naggar Gaad, 2004; Glaubman & Lifshitz, 2001; Lifshitz et al., 2004). Ravenscroft et al. (2019) investigated factors affecting elementary school teachers' attitudes toward the inclusion of students with VI. The results showed that teachers had positive attitudes toward the inclusion of students in their classrooms, whereas more than half of the teachers could not provide an appropriate educational arrangement for these students. In another study (Mushoriwa, 2001), the majority of the primary school teachers felt that the general education placement of students would not be beneficial for them because they need a different mode to read. Barriers to implementing effective inclusive practices are related to inadequate teacher training programs and the gap between theory and practice in Turkey (Sakız & Woods, 2015). Likewise, it could be said that teachers' perceptions of ideal education for students with VI derived from these barriers in this study.

In light of the findings of the current study, the following implications for practice are proposed: inclusive settings should be equipped with educational tools (i.e., braille alphabet, assistive technologies, tactile graphs and maps) to be used in classrooms and resource rooms, teaching staff and their training should be enhanced, buildings should be designed as physically accessible and supervised by special education teachers with

expertise in VI or experience in working with students with VI. The other implication is to include courses related to the education of students with VI in the teacher training programs (i.e., general education teachers and school counselors). For example, when pre-service teachers enter the profession, they should know how to design a course, particularly in mathematics and science, for a student with VI, how to use assistive technologies during the instruction, and how to adapt the curriculum and assessment. As stated by Dvir (2015), listening to the voice of teachers with VI to determine how to support students with disabilities in the best manner can be considered one of the implications for teacher education.

Concerning future research, the following suggestions are made: We narrowed down the research scope to teachers with VI and students with VI. Therefore, future research should be expanded to different types of disabilities to understand how inclusive practices for students with disabilities are influenced by experiences of teachers with the same disability. Another recommendation is to involve students with VI in qualitative research to explore their experience as learners in inclusive settings. An avenue of research is to conduct a study with teachers working with students with VI in general education classrooms and resource rooms to identify their problems and needs in terms of instructional teaching strategies, assessment, and professional development.

As a limitation, it should be noted that all participants were educated in the primary schools for students with VI and then transferred to inclusive education. Their perceptions may have been strongly influenced by their educational experiences. It seems difficult to make comprehensive decisions regarding ideal students with VI.

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