

The naturalistic teaching process as an inclusive practice: Preschool teachers' perspectives

Düriye Merve Tuna¹, İbrahim Halil Diken²

Abstract: According to the Ministry of National Education, 2013, children with diverse needs have the right to receive their education in environments designed to meet their needs and allow them to interact with their peers. Instructional programs that can meet all children's needs are one of the suggested programs during the implementation of inclusive programs. The Naturalistic Teaching Process is a recommended method in this context. The Naturalistic Teaching Process is a natural instructional process that allows children to acquire and reinforce new skills. This study aims to define the perspectives of preschool teachers who have children with diverse needs in their classrooms on the Naturalistic Teaching Process. Semi-structured interviews collected the data. Fifteen preschool teachers participated in this study. The data analysis employed an inductive approach based on content analysis. The study findings indicate that preschool teachers tend to follow a child's lead when setting educational objectives for children with diverse needs and developing an individualized educational program. Additionally, the study defines preschool teachers' abilities as inadequate for collaboration with families and specialists. Preschool teachers partially use the strategies and techniques, environmental arrangements, and prompts used in the Naturalistic Teaching Process, but they do not apply them systematically, indicating a need for teacher training in these areas.

Article History

Received: 27 December 2023

Accepted: 12 August 2024

Keywords

Naturalistic teaching process; Inclusion; Preschool education; Children with diverse needs

Introduction

The preschool period is considered the most important years of life, and the values and attitudes acquired in early childhood form the basis of a person's future life (Oktay, 2002). The preschool period is defined as the educational process that is appropriate for the child's developmental level, observes individual differences, provides rich stimulating environmental conditions, and directs children's development in line with society's cultural values from the child's birth to the beginning of primary school (Güven & Azkeskin, 2012; Oğuzkan & Oral, 1997; Oktay, 2002;). Turkey implements a preschool education program that strives to enhance the learning experiences of children in preschool education institutions, promote healthy growth, attain optimal development across all domains, foster self-care skills, and prepare them for primary school (Ministry of National Education [MoNE], 2013). Preschool education, covering the first years of life, plays a crucial role in the development of children with diverse needs or those at developmental risk. In this sense, it is observed that there are significant developments in terms of enabling children with diverse needs to benefit from preschool education within the scope of the legal regulations developed in Turkey. Thus, according to the Special Education Services Regulation, "Compulsory education for individuals in need of special education is the education and training process that starts in the preschool education period and includes the secondary education period." The same regulation includes the phrase, "Preschool education is compulsory for children with diverse needs who have completed 36 months (MoNE, 2018). It is stated that the main purpose of education, health, and care services to be provided to children with diverse needs or at risk and their families in the early period is to minimize children's negative conditions and support their quality of life at the highest level (Er-Sabuncuoğlu & Diken, 2010). The ultimate goal of special education services in the preschool period is to enable children with diverse needs to receive education

¹ Anadolu University, Graduate School, Eskişehir, Türkiye, e-mail: dmervetuna@gmail.com, ORCID: <https://orcid.org/0000-0002-4319-8286>

² Anadolu University, Research Institute for Individuals with Disabilities, Eskişehir, Türkiye, e-mail: ihdiken@anadolu.edu.tr, ORCID: <https://orcid.org/0000-0002-5761-2900>

together with their typically developing peers. Inclusive practices refer to the provision of support for special education services to preschool school teachers, children with diverse needs, and their typically developing peers (Acarlar, 2013; Akçamete, 2010). Most studies on inclusive practices in preschool education in Turkey incorporate the perspectives of teachers. According to Sucuoğlu (2004), the majority of studies conducted in Turkey on inclusive practices between 1980 and 2005 focused on determining teachers' thoughts, approaches, or attitudes toward children with diverse needs and inclusion. Many studies obtaining the views of preschool teachers determined that teachers had insufficient knowledge about inclusive practices (Altun & Gülben, 2009; Özdemir & Ahmetoğlu, 2012; Seçer, 2010; Sığırtmaç et al., 2011; Sucuoğlu et al., 2013; Sucuoğlu et al., 2014; Tufan & Yıldırım, 2013). On the other hand, the factors making inclusive practices successful are listed by Kırcaali-İftar and Batu (2007) as teachers, typically-developing children, children receiving inclusive education, school management, families of children receiving inclusive education, physical environment, families of typically-developing children, support special education services, and additional services. Teachers are indicated as the most important of these factors (Sucuoğlu et al., 2013; 2014). In addition to the impact teachers have on the success of inclusive practices, the teaching methods they use are also considered important. In this context, it is important to include teaching methods used in naturalistic settings in inclusive practices (Allen & Cowdery, 2005; Özen et al., 2013; Tekin-İftar, 2008). The National Professional Development Center on Inclusion [NPDCI] (2009) recommends the use of the Naturalistic Teaching Process (NTP) in inclusive practices. The primary objective of the NTP for children is to integrate routines, transitions, and activities from their daily lives into their naturalistic experiences by serving as a model, expanding, adapting, and transforming them into meaningful learning opportunities (Diken, 2013; Snyder et al., 2015). The NTP has four basic features. These are listed as follows: (a) following a child's lead and interest; (b) using routines, activities, and transitions as a teaching setting; (c) using activities, objects, or toys as natural reinforcers; (d) teaching generalization (Diken, 2013; Pretti-Frontczak & Bricker, 2007). The NTP adheres to the principles outlined in the report of Developmentally Appropriate Practices (DAP) (Copple & Bredekamp, 2009) prepared by the National Association Education of Young Children [NAEYC] (2014) and the report of Recommended Practices for special education in early childhood by the Council for Exceptional Children (CEC). The National Autism Council [NAC] (2015) published the National Standards Report, which recommends the NTP and the teaching methods and techniques used in naturalistic settings. This report emphasizes the importance of the teacher's perspective on education and the NTP they use for successful inclusive practices, particularly in preschool inclusive practices. However, when examining the preservice courses preschool teachers in Turkey undergo, it's evident that they enroll in a mandatory two-credit course on special education. This course primarily focuses on theory, with no practical component for children with diverse needs ((Council of Higher Education [CoHE], 2018). This may limit the methods and techniques preschool teachers use in their practices, particularly for children with diverse needs (Sucuoğlu et al., 2015).

Using the NTP in inclusive settings is among the recommended practices in terms of creating multiple learning opportunities and being compatible with the curriculum (Horn et al., 2000; Frontczak & Bricker, 2001). Furthermore, studies from around the world stress how important it is for preschool teachers to use NTP strategies and techniques, along with prompting and setting up the environment, when working with kids who have diverse needs in natural settings (Copple & Bredekamp, 2009; NAC, 2015; NPDCI, 2009). Researchers developed the NTP to enhance children's engagement and learning through inclusive practices (Hemmeter, 2000; Odom, 2000; Pretti-Frontczak & Bricker, 2007; Snyder et al., 2015; VanDerHeyden et al., 2005; Wolery & Hemmeter, 2011).

As the importance of inclusive practices in early childhood has grown, changes have begun to occur in the teaching approaches presented in inclusive settings. These changes have started to give way to game-based, child-centered approaches rather than teacher-centered and directive approaches (Hemmeter, 2000). The Preschool Education Program used and developed by the MoNE (2013) in Turkey is parallel to the NTP in terms of being a developmental program, providing flexibility in organizing the teacher's plan in line with children's needs and interests, being a game, problem-solving, and creativity-based program, and using routines, activities, and transitions as a learning setting. Upon reviewing the literature, it is observed

that there are many studies on the effectiveness of strategies and techniques used in the NTP (Bakkaloğlu, 2008; Christensen-Sandfort & Whinnery, 2013; Fox & Hanline, 1993; Güzel-Özmen, 2005; Kurt & Tekin-İftar, 2008; Losardo & Bricker, 1994; Odluyurt, 2011; Odluyurt & Batu, 2010; Toğram, 2004). There are numerous studies in the international literature on the effectiveness of using the NTP and techniques used in the NTP during inclusive practices (Harjusola-Webb & Robbins, 2012; Macy & Bricker, 2007; Toelken & Miltenberger, 2012). In the national literature, no study was found on the effectiveness of the NTP and the strategies and techniques used in this process in inclusive practices (Sucuoğlu et al., 2015). Research reveals that preschool teachers in Turkey have information needs regarding inclusion (Özdemir & Ahmetoğlu, 2012; Seçer, 2010; Sığirtmaç et al., 2011; Sucuoğlu et al., 2013; 2014; Tufan & Yıldırım, 2013). However, there are few studies that determine what kind of practices preschool teachers perform in inclusive practices and what kind of needs and perspectives they have in the context of the NTP (Özen et al., 2013; Sucuoğlu et al., 2013; 2014). Sucuoğlu et al. (2013; 2014) examined teachers' knowledge levels in six domains, including naturalistic teaching strategies, using the Inclusion Knowledge Test (IKT) in their study. Özen et al. (2013) assessed the instructional processes used by teachers in their classrooms in terms of the Activity-Based instructional principles employed in the NTP. This study was deemed necessary because there are few studies that determine the needs and perspectives of teachers regarding the NTP, which the literature recommends for use in inclusive practices. A successful inclusive practice in the preschool period supports the development of both children with diverse needs and typically developing children (Guralnick, 2001). The teacher and the instructional processes used by the teacher are of key importance for a successful inclusive practice (Kırcaali-İftar & Batu, 2007). In preschool inclusive practices, the NTP is recommended (Coppie & Bredekamp, 2009; NAC, 2015; NPDCI, 2009). In this context, it is thought that revealing the views, needs, and suggestions of preschool teachers who have children with diverse needs in their classrooms will contribute to the national and international literature. Furthermore, experts believe it has the potential to shape the content of intervention programs and in-service training programs for use in national practice.

The purpose of this study is to determine the perspectives of preschool teachers who have not received any training on the Naturalistic Teaching Process before and who have children with diverse needs in their classrooms on the naturalistic teaching process (NTP). The present study seeks answers to the following questions: (1) How do preschool teachers who have not received any training on the NTP before and have children with diverse needs in their classrooms plan the intervention? (2) How do preschool teachers who have not received any training on the NTP before and have children with diverse needs in their classrooms carry out the intervention process? (3) How do preschool teachers who have not received any training on the NTP before and have children with diverse needs in their classrooms evaluate the effect of family involvement?

Method

Research Design

The study was designed as descriptive, and a semi-structured interview technique was used to collect data. The research data were analyzed by induction analysis. The research diaries and field notes kept by the researcher were used while analyzing the research data and interpreting the findings.

Participants

The study participants include the first researcher, who graduated from preschool education programs and minor programs in education of the mentally disabled in 2011, as well as teachers who volunteered to be interviewed. In this context, necessary permissions were obtained to conduct the study with teachers working in kindergartens and nursery classes in a city center located in the Marmaramara region of Turkey. Accordingly, the list and contact information of the schools were obtained from the official website of the Directorate of National Education, 9 kindergartens and 3 nursery classes were contacted by phone, and the first researcher explained the study he planned to carry out to the school administrators. A total of 23 teachers from seven institutions, who indicated their willingness to participate in the interview, volunteered. We interviewed a total of 15 teachers based on the prerequisites for their

participation in the study. All of the participating teachers have at least one year of experience with children with diverse needs, and during the study, they had at least one student with diverse needs in their classroom. One of the teachers participating in the study received education at a university in Bulgaria and is an associate degree graduate of the Child Development Program. All other participants are undergraduate graduates. Of the teachers with a bachelor's degree, 11 are graduates of the preschool education program, 2 are graduates of the child development program, and 1 is a graduate of the child development and home economics program. All of the teachers participating in the study are female. The participants' age range varies between 27 and 57, and the mean age is 34. The participants' professional experience ranges between 2 and 26 years, with an average of 10 years. The participants' experience with children with diverse needs varies between 2 and 13 years, and the average experience with children with diverse needs is 4 years. Of the teachers participating in the study, 13 have experience with children with language and speech disorders, 11 with children with intellectual disabilities, 7 with children with pervasive developmental disorder, 5 with children with attention deficit and hyperactivity disorder, 5 with children with orthopedic disabilities, 5 with children with hearing impairment, and 1 with children with chronic diseases. Of the teachers involved in the study, 7 continue to work with children aged 5 years old, 4 with children aged 4 years old, 3 with children aged 3 years old, and 1 with children aged 6 years old. The number of children in the participants' classes ranges from 12 to 24, and the average number of children is 19.

Data Collection Tools

To obtain information about the participants in this study, data were collected using the Demographic Information Form and semi-structured interview questions.

Demographic Information Form

The Demographic Information Form was prepared to provide information about the participating teachers. The form was designed to obtain information about variables such as teachers' age, the field of graduation, professional experience, and gender.

Interview Questions

The interview questions created in line with the literature, observations, and seminars received from experts were prepared in the format of an expert opinion form and sent to six experts via e-mail. The questions were rearranged in line with the opinions of the experts. The prepared questions were sent to six experts to obtain expert opinions for the second time. After obtaining the second expert opinion, the interview questions were arranged. Following a preliminary interview with a teacher, we examined the transcripts from the interviews with two experts and finalized the interview questions. The data obtained in the preliminary interview were excluded from the research data and used only to develop the questions.

Data Collection Process

Semi-structured interview techniques with volunteer teachers were conducted at the schools where the teachers work in their rooms suitable for the interview at the time. The first researcher conducted all the interviews. The first researcher prepared an interview guide to inform participants about the interview's principles before starting the interviews, and then presented the interview to each participant. The shortest interview lasted 34 minutes, the longest one lasted 1 hour, 14 minutes, and the average interview duration was 49 minutes.

Data Analysis

Induction analyzed the study's data (Bogdan & Biklen, 2007; Flick, 2007). An interview coding key was created for each participant based on the generated codes and responses. The researcher met with two experts, shared how he performed the analysis, and obtained their opinion on the interview coding key. By copying and pasting the data and line numbers from the previously coded data file to the appropriate category, the researcher ensured that the data was suitable for the category.

Reliability

Expert opinion was obtained to determine the reliability of the interview coding keys. In the reliability calculation, the codings with agreement were divided by the sum of all codings and multiplied by 100. The average reliability in all categories was calculated as 96%.

Ethical Considerations

This study was supported by the Scientific and Technological Research Council of Turkey (TÜBİTAK) under the 1001 Program (Grant No. 114K164) and the Anadolu University Scientific Research Projects Commission under Project No. 1505E447. Ethical approval was obtained from the Anadolu University Ethics Committee. The Ministry of National Education provided ethical approval in this context. The voluntary participants signed informed consent forms, ensuring confidentiality and their right to withdraw from the study at any time.

Results

Findings were grouped under three themes. These themes are "Preschool Teachers' Perspectives on the Planning Process of the Education to Be Implemented: What Occurs in the Planning Process?" "Preschool Teachers' Perspectives on the Intervention Process: What Occurs in the Intervention Process?" and "Preschool Teachers' Perspectives on Family Involvement in the Education Process: Family Involvement." We present each theme, along with its sub-themes and categories, below.

Preschool Teachers' Perspectives on the Planning Process of the Education to be Implemented: What Happens in the Planning Process?

In the interviews, it was tried to determine how the teachers planned the education they would implement and what kind of planning process they followed for their children with diverse needs. The findings obtained from the interviews were grouped under three headings: "The Ways of Getting to Know and Evaluating the Child," "Planning Made for Children with Diverse Needs," and "Being Aware of the Characteristics of Children with Diverse Needs."

The Ways of Getting to Know and Evaluating the Child

Evaluation is the process of collecting information to decide on the child's development and needs (Kargın, 2013). There are two ways to evaluate: formal and informal. The formal evaluation applies standardized tests. Despite the cost-effectiveness of standardized tests, the emotional states and experiences of children, particularly those aged 3-5 years, can influence them, necessitating informal evaluation support (Epstein et al., 2004). Techniques used in informal evaluation in preschool can be listed as observation, portfolio keeping, teacher evaluation, and family evaluation (NAEYC, 2013; Epstein et al., 2004).

In addition to record-keeping and obtaining information from the family, the teachers stated they mostly made observations to get to know and evaluate children. Taking into account the perspectives of the teachers, Teacher Yonca elucidated their method of evaluating children through observation, stating,

In my opinion, a good observer can determine this from the way children behave in any environment, from the way they use the toilet to asking for a napkin.

Teacher Nermin clarified this by saying,

I took a lot of notes during a month. He did it that day. He did this today. ...I prepared it by observing one-on-one and taking notes.

Planning Made for Children with Diverse Needs

An Individualized Education Plan (IEP) is a plan that establishes the location, timing, duration, and provider of special education services for children with diverse needs enrolled in general education classes.

It involves mutual agreements between the student, their family, and all educators responsible for their education (special education teacher, general education teacher, counselor, etc.) (Kargin, 2007).

The teachers stated that they prepared an IEP for children with diverse needs and collaborated with the student's family and experts. All of the teachers indicated that they prepared an IEP for their children with diverse needs and described the process of doing so. The teachers said that they mostly needed information during the IEP preparation process. Teacher Sevim said,

We used to have difficulties preparing an IEP until last year because we did not have much knowledge on this subject.

Teacher Cansu stated,

I have had many deficiencies in preparing an IEP since my appointment. I completed most of it last year. I have some shortcomings when it comes to preparing the IEP.

Teacher Menekşe expressed her lack of knowledge about IEP preparation in the following way:

Well, the report we prepared is insufficient because we are incompetent in this.

Being Aware of the Characteristics of Children with Diverse Needs

Teachers must know the strengths and needs of children in their classrooms in order to make appropriate educational and instructional practices for them (NAEYC, 2013). At the planning stage, the teacher should answer the questions of what skills and behaviors children should primarily learn in daily routines, activities, and transitions, and how to teach them (Noonan & McCormick, 2006). In this context, it's crucial for the teacher to understand the strengths and aspects of the student with diverse needs, as well as the activities he enjoys and finds challenging, and adjust their planning accordingly.

Most of the teachers indicated the strengths of their children with diverse needs. Of the teachers who had difficulty expressing their views on their children's strengths, Teacher Cansu said the following for her student with diverse needs:

No, I can't remember right now.

Teacher Zeyno stated for her student with diverse needs who has Down syndrome,

He doesn't have many strengths at the moment.

Teacher Derya responded to her student with autism, one of her three children with diverse needs, by saying,

I can't say anything about him."

On the other hand, Teacher Yonca provided examples of how to use the activities her student with diverse needs enjoyed for teaching purposes to help him achieve his goals:

... If he didn't want to do it with his hand, I made him do it with his head. I attached a brush to the helmet. Inside a box, we prepared a brush for the helmet and finger paint. He was instructed to insert the brush into his hat and use it to draw on the kraft paper on the wall. He was instructed to draw a picture by moving his head to the left and right, as well as up and down, according to his preference. "In that sense, I found a solution for him, and he loved it. (Teacher Yonca)

Preschool Teachers' Perspectives on the Intervention Process: What Happens in the Intervention Process?

The interviews conducted to understand the teachers' perspectives on the intervention process yielded information about the strategies, techniques, environmental arrangements, and prompts they employed in the NTP, as well as whether their practices incorporated the NTP's features. The obtained data were grouped under two headings, "Strategies and Techniques/Environmental Arrangements/Prompts Used in the Naturalistic Teaching Process That Preschool Teachers Employ" and "Traces of the Characteristics of the Naturalistic Teaching Process in the Intervention Process." The category "Strategies and Techniques/Environmental Arrangements/Prompts Used in the Naturalistic Teaching Process That

Preschool Teachers Employ" consists of the three sub-categories within itself: (a) strategies and techniques, (b) environmental arrangements, and (c) prompts.

Strategies and Techniques, Environmental Arrangements, Prompts Used in the NTP

Among the strategies and techniques in the NTP, the teachers employed activity-based instruction, incidental teaching, being a model without waiting for a response, requesting to be a model, and being a model using extensions (Diken, 2013).

Activity-based instruction is defined as creating learning opportunities for children by embedding functional skills into daily activities (Pretti-Frontczak & Bricker, 2007). Results indicated that most of the teachers included "activity-based instruction" in their practices. Teacher Hadise provided the following examples of her use of activity-based instruction:

Afterwards, I separate the boys and girls, particularly when washing hands, for routine activities. Also to teach the concept of gender. ... You're a girl and I'm a boy; they often struggle to distinguish between the two genders.

Teacher Sevim provided an example of this:

We assist children who struggle to dress independently during the initial weeks. In addition to this, we have prepared a game for our students. For my class, the dress-up game. They learned it in this way, through play.

Teacher Cansu gave the following examples of using activity-based instruction:

If I teach a concept related to finding a circle, I pay attention to choosing games accordingly. I primarily engage in activities related to the lesson that day.

More than half of the interviewed teachers incorporated incidental teaching into their practices. Despite not implementing all the steps of incidental teaching in their examples, the teachers evaluated the learning and teaching opportunities to align with the children's needs. In this context, Teacher Mediha demonstrated her awareness of her students' needs by stating,

I said, 'It's raining. The child approached me in excitement. He cannot pronounce the letter 'R'. So he says, It's laining.

The teacher then responded to the child's interest and clarified that she had successfully completed the engagement step:

Then I recognized the child's interest and acted accordingly. We went to the garden immediately and practiced a bit by saying, It's rrrraining, rrr (sound).

The same teacher said that she supported the child as a model:

He also used to have problems controlling his voice. I told him that ants can hear us and whisper to them silently, or we could say, let's say louder so our voices can reach clouds to provide voice control.

Prompts are used to support the skills and behaviors that the child cannot perform independently with physical, model, verbal, and non-verbal aids (Diken, 2013). More than half of the teachers gave examples of using physical prompts. Teacher Firdevs gave examples of the full physical prompt by saying:

I try to hold his hand. Where necessary, I place his fingers on the scissors' rings. At first, I make his fingers work with my hand.

Teacher Mediha demonstrated the use of the shadow prompt, which is a type of physical prompt, by stating,

For instance, I'm holding his shoulder. I stand next to him and say, You can do it... By decreasing the degree of help, for example, I just sit next to him and get up from time to time.

Traces of the Characteristics of the NTP

The characteristics of the NTP are listed as follows: (1) the child's lead and interest; (2) using routines, activities, and transitions as a teaching setting; (3) teaching generalization; and (4) an activity/object being a natural reinforcer (Diken, 2013; Pretti-Frontczak & Bricker, 2007).

Interview results indicated that all teachers followed the child's lead and interest. Teacher Rana gave the following example of following the child's lead and interest:

They saw the playground outside, ... Teacher, can we play in the sandpit or park? Since we had enough time, I wanted to stretch today's plan and make them have fun. It is essential for me that they have fun.

Teacher Sevim gave the following example:

If the child liked something else that day, we include it in the plan immediately and plan accordingly.

Another characteristic of the NTP is the use of routines, activities, and transitions in a teaching setting. All of the teachers stated that they used routines, activities, and transitions in their daily practice. Concerning the use of activities as a teaching setting, Teacher Mediha said the following:

So, for example, Tuesday is our experiment day. Wednesday is our number day, etc. I plan activities according to these.

Teacher Rana stated that she used activities for teaching purposes in the following way:

We do our experiment if there is an art activity, a Turkish language activity, or a game activity in accordance with the subject I have determined in advance.

Regarding the use of routines as a teaching setting, Teacher Firdevs provided an example, stating that she used the conversation activity, one of her classes' routines, to support the children's needs:

When the children arrive at school, we first sit at the table and chat. I ask children how they are doing. We engage in a conversation about the current day, aiming to teach the concept of the day.

Regarding the use of transitions in a teaching setting, Teacher Songül gave examples of how to transform transitions into learning opportunities by saying:

When entering the bathroom line, I count from one to twenty and send them like that.

Preschool Teachers' Perspectives on Family Involvement in the Education Process: Family Involvement

Based on the interviews with teachers, the impact of family involvement in the education process on the child, the families, and the teachers was explored. The findings were organized into three main categories: preschool teachers' views on the impact of family involvement on the child, on the family and on themselves as teachers.

Views on the Effect of Family Involvement on Children

Children learn from people around them, family members, teachers, and peers (Dunst et al., 2006). Experts and families collaborate to support the child's development during inclusive practices (Guralnick, 2001; Kaczmarek et al., 2000).

Most teachers share a positive view on the impact of family involvement in the education process on children. More than half of the teachers stated that families performing activities as class guests made children happy. Teacher Rana expressed this in the following way:

Children of the families participating in activities become very happy. So when a child's family doesn't come, they get very upset.

Teachers also stated that family involvement in the education process increased children's motivation and contributed to developing children's school belonging. Teacher Begüm expressed that the effect is good. Children become more motivated when they think that the family supports them.

Teacher Firdevs expressed as follows:

With such things, the child both feels school belonging and constantly feels his family's support.

Views on the Effect of Family Involvement on Families

Experts and families should collaborate to identify the child's interests and needs within the NTP framework, and to provide more support for these needs in diverse settings that align with their interests (Horn et al., 2000; Notari-Syverson & Schuster, 1995).

Almost all teachers emphasized that family involvement is critical to acquiring knowledge on the process of the education of their children, while more than half of the teachers stated that family

involvement in the education process raised the family's awareness. Teacher Derya provided the following examples of raising families' awareness through their participation in classroom activities:

The family pays close attention to the characteristics of the child's age group. Then they learn about his friends, specifically the types of friends he has. The child shares this information when he returns home, but it's more effective when his family visits and observes it. How can we address this issue, specifically targeting the four-year-old age group? You know, what could they do? What can't these children do? The family becomes aware of these. What is their attention span? For instance, they can observe the activities the child finds enjoyable and those he is unable to engage in. Teachers are able to observe the child's interactions with his friends. (Teacher Derya)

Views on the Effect of Family Involvement on Themselves

According to Kesiktaş (2013), the effects of family involvement in the education process on teachers include feeling the support of the family, understanding the difficulties teachers face, and obtaining information about the child. Most teachers think that family involvement in the education process has an effect on increasing the opportunities to cooperate, be supportive, and communicate with families and establishing positive communication. Teacher Cansu explained this situation as follows:

Besides, the dialogues with the teacher become better. Because the teacher gets to know the parent, the sincerity and warmth between them increase.

Conclusion and Discussion

Consider the study's limitations, such as its small sample size, when interpreting the results. The study includes the opinions of only 15 preschool teachers. The obtained findings were discussed from three aspects: (a) what occurs in planning?, (b) what occurs in intervention?, and (c) family involvement. We then presented recommendations for practice and additional research.

To effectively plan the NTP's inclusion/inclusive practices, teachers should evaluate children in a versatile manner, prepare IEPs for children with diverse needs, and be aware of children's strengths and needs (Copple & Bredekamp, 2009; Macy, 2007; Pretti-Frontczak & Bricker, 2001; Yoder & Warren, 2001). The study observed that the participating teachers primarily utilized informal techniques to understand their children, lacking a standard evaluation process. Teachers may require information on evaluation techniques in order to apply them at various levels and deliver standard education services. The most important condition for the successful execution of the NTP is determining the objectives (Boavida et al., 2014; Dunst et al., 2006; Horn et al., 2000; Pretti-Frontczak & Bricker, 2001). As a result, teachers must evaluate their children using various techniques (obtaining information from the family, observing, keeping records, etc.), determine the child's characteristics, strengths, and needs, and then determine their goals accordingly (Pretti-Frontczak & Bricker, 2001). In this respect, teachers' deficiencies in using evaluation techniques may cause them to have difficulties determining children's needs and determining their goals accordingly. Individualized instruction, IEP preparation, and collaboration with children's families and other process experts are necessary for the successful implementation of the NTP in inclusive practices (Guralnick, 2001; Kaczmarek et al., 2000). Although all teachers said they prepared an IEP, they felt inadequate. It is thought that teachers can express the needs of their students with diverse needs more clearly and precisely; they have difficulties expressing their strengths, and when they are asked to say their strengths, some answers are given by focusing on the needs of children rather than their strengths. Regarding the NTP planning process, it's evident that teachers struggle with evaluation techniques, IEP preparation, goal setting, and collaboration with experts and families. Additionally, we can view the fact that teachers plan activities based on children's preferences and dislikes as a positive aspect of the NTP. Given all these data, we can assert that teachers require professional knowledge and experience in the planning process to effectively implement the NTP in their classrooms during inclusive practices.

Teachers should effectively use strategies/techniques and environmental arrangements for successful inclusive practices of the NTP (Horn et al., 2000; Odom, 2000; Pretti-Frontczak & Bricker, 2007; Snyder et al., 2015). Teachers have the opportunity to demonstrate their use of various strategies, techniques, prompts, and environmental arrangements from the NTP during the intervention process. This demonstrates their professional competence, even in the absence of prior NTP training. This also shows

that the NTP is suitable for the preschool education curriculum. It is believed that teachers are highly aware of the characteristics of the NTP during its implementation, particularly when it comes to following the child's lead and interest. While teachers often use activities as a teaching setting, it's worth noting that fewer teachers utilize routines and transitions. It's important to support teachers in utilizing routines and transitions, as well as generalization and natural reinforcement, which are key characteristics of the NTP.

Family involvement in the education process is defined as their participation in school activities and programs, as well as their communication with children about the school and the home environment that supports learning (Fan, 2001). The teachers asserted that family involvement in the education process facilitated their collaboration with the families, fostering a supportive environment, enhancing their communication with the family, providing them with information, understanding the family's traits, understanding the challenges the teachers faced, and highlighting the family's complicating influences. However, two teachers stated that family involvement in the education process had complicating effects, just as in the study conducted by Sucuoğlu et al. (2013; 2014), which shows their deficiencies in working with families.

Recomandations for Practice

- By providing them with a preservice practice-based course on special education, we can ensure that preschool preservice teachers make an evaluation, prepare an IEP, and use instructional techniques and prompts.
- Assigning special education teachers to preschool institutions can provide support for the challenges preschool teachers face with their children with diverse needs during the intervention process.

Recommendations for Further Research

- We can design qualitative research based on observation or video analysis to ascertain the strategies and techniques used by NTP preschool teachers, the activities they engage in, and the duration of their use.
- By providing coaching support, single-subject research can be carried out on the effectiveness of preschool teachers' use of the strategies and techniques, environmental arrangements, and prompts used in the NTP.
- Given the shortcomings of preschool teachers in working with families, it is possible to develop a training program that will improve their interactions with families and investigate its effectiveness.
- Preschool teachers need information about various disability groups, so we can prepare a training program on this topic and investigate its effectiveness.

Declarations

Authors' Declarations

Acknowledgements: We would like to thank Hasan Gürgür and Arzu Arıkan for their contributions to the development of data collection tools and the analysis process, and Hatice Bakkaloğlu for her revisions and suggestions."

Authors' contributions: This manuscript is based on DMT's master's thesis, with IHD serving as the supervisor and providing significant guidance and input throughout the research and manuscript preparation process.

Competing interests: The authors declare that they have no competing interests.

Funding: This work was supported by the Scientific and Technological Research Council of Turkey (TÜBİTAK) under the 1001 Program (Grant No. 114K164) and by the Anadolu University Scientific Research Projects Commission under Project No. 1505E447.

Ethics approval and consent to participate: The Ministry of National Education provided official permission to conduct interviews in schools. Ethical approval was obtained from the Anadolu University Ethics Committee. The voluntary participants signed informed consent forms, ensuring confidentiality and their right to withdraw from the study at any time.

Publisher's Declarations

Editorial Acknowledgement: The editorial process of this article was completed under the editorship of Dr. Adrijana Višnjić-Jevtić through a double-blind peer review with external reviewers.

Publisher's Note: Journal of Childhood, Education & Society remains neutral with regard to jurisdictional claims in published maps and institutional affiliation.

References

- Acarlar, F. (2013). Kaynaştırma modeli ve özel gereksinimli küçük çocukların özellikleri. In B. Sucuoğlu and H. Bakkaloğlu (Eds.), *Okul öncesi kaynaştırma*. Kök Yayıncılık.
- Akçamete, G. (2010). *Özel gereksinimi olan çocuklar*. In G. Akçamete (Ed.), *Genel eğitim okullarında özel gereksinimi olan öğrenciler ve özel eğitim* (3rd ed.). Kök Yayıncılık.
- Allen, K. E., & Cowdery, G. E. (2005). *The exceptional child: Inclusion in early childhood education* (5th ed.). Tomson Delmar Learning.
- Altun, T., & Gülben, A. (2009). Okul öncesinde özel gereksinim duyan çocukların eğitimindeki uygulamalar ve karşılaşılan sorunların öğretmen görüşleri açısından değerlendirilmesi. *Selçuk Üniversitesi Ahmet Keleşoğlu Eğitim Fakültesi Dergisi*, 28, 253-272.
- Bakkaloğlu, H. (2008). The effectiveness of activity based intervention programme on the transition skills of children with developmental disabilities aged between 3 and 6 years. *Educational Sciences: Theory & Practice*, 8(2), 393-406.
- Boavida, T., Aguiar, C., & McWilliam, R. A. (2014). A training program to improve IFSP/IEP goals and objectives through the routines-based interview. *Topics in Early Childhood Special Education*, 33(4), 200-211. <https://doi.org/10.1177/0271121413494416>
- Bogdan, R. C., & Biklen, K. S. (2007). *Qualitative research for education: Introduction to theory methods* (5th ed.). Allyn and Bacon.
- Christensen-Sandfort, R. J., & Whinnery, S. B. (2013). Impact of milieu teaching on communication skills of young children with autism spectrum disorder. *Topics in Early Childhood Special Education*, 32(4), 211-222. <https://doi.org/10.1177/0271121411404930>
- CoHE. (2018). *Okul öncesi öğretmenliği lisans programı*. https://www.yok.gov.tr/Documents/Kurumsal/egitim_ogretim_dairesi/Yeni-Ogretmen-Yetistirme-Lisans-Programlari/Okul_Oncesi_Ogretmenligi_Lisans_Programi.pdf
- Copple, C., & Bredekamp, S. (2009). *Developmentally appropriate practice in early childhood programs serving children from birth through age 8*. Washington, DC: NAEYC
- Diken, İ. H. (2013). Okul öncesi kaynaştırma ortamlarında doğal öğretim. In B.Sucuoğlu and H. Bakkaloğlu (Eds.), *Okul öncesi kaynaştırma*. Kök Yayıncılık.
- Dunst, C. J., Bruder, M. B., Trivette, C. M., & Hamby, D. W. (2006). Everyday activity settings, natural learning environments, and early intervention practices. *Journal of Policy and Practice in Intellectual Disabilities*, 3(1), 3-10. <https://doi.org/10.1111/j.1741-1130.2006.00047.x>
- Epstein, A. S., Schweinhart, L. J., & DeBruin-Parecki, A., Robin K. B. (2004). Preschool assessment: A guide to developing a balanced approach. *National Institute for Early Education Research* 7,1-11.
- Er-Sabuncuoğlu, M. & Diken, İ. (2010). Türkiye’de erken çocukluk müdahalesi: güncel durum, zorluklar ve öneriler. *International Journal of Early Childhood Special Education*, 2(2), 149-160. <https://doi.org/10.20489/intjces.107966>
- Fan, X. (2001). Parental involvement and children’ academic achievement: A growth modeling analysis. *Journal of Experimental Education*, 70(1), 27-53. <https://doi.org/10.1080/00220970109599497>
- Flick, U. (2007). *Designing qualitative research*. The Cromwell Press.
- Fox, L., & Hanline, M. F. (1993). A preliminary evaluation of learning within developmentally appropriate early childhood settings. *Topics in Early Childhood Special Education*, 13(3), 308-327. <https://doi.org/10.1177/027112149301300308>
- Guralnick, M. J. (2001). A framework for change in early childhood education. In M.J. Guralnick (Ed.), *Early childhood inclusion: Focus on change* (pp.3-38). Paul H. Brookes Publishing.
- Güven, G., & Azkeskin K.E. (2012). Erken çocukluk eğitimi ve okul öncesi eğitim. In İ. H. Diken (Ed.) *Erken çocukluk eğitimi* (2nd ed.). Pegem Akademi.
- Güzel-Özmen, R. (2005). Otistik bir çocuğa dil öğretimi. *Eğitim ve Bilim*, 30(138), 18-27.
- Harjusola-Webb, S. M., & Robbins, S. H. (2012). The effects of teacher-implemented naturalistic intervention on the communication of preschoolers with autism. *Topics in Early Childhood Special Education*, 32(2), 99-110. <https://doi.org/10.1177/0271121410397060>
- Hemmeter, M. L. (2000). Classroom-based interventions: Evaluating the past and looking toward the future. *Topics in Early Childhood Special Education*, 20(1), 56-61. <https://doi.org/10.1177/027112140002000110>

- Horn, E., Lieber, J., Li, S., Sandall, S., & Schwartz, I. (2000). Supporting young children's IEP goals in inclusive settings through embedded learning opportunities. *Topics in Early Childhood Special Education, 20*(4), 208-223. <https://doi.org/10.1177/027112140002000402>
- Kaczmarek, L., Pennington, R., & Goldstein, H. (2000). Transdisciplinary consultation: A center-based team functioning model. *Education and Treatment of Children, 23*(2), 156-172.
- Kargın, T. (2007). Eğitsel değerlendirme ve bireyselleştirilmiş Eğitim Programı hazırlama süreci. *Ankara Üniversitesi Eğitim Bilimleri Fakültesi Özel Eğitim Dergisi, 8* (1), 1-13. https://doi.org/10.1501/Ozlegt_0000000103
- Kargın, T. (2013). Okul öncesi performans değerlendirme ve bireyselleştirilmiş eğitim planı hazırlanması. In B.Sucuoğlu and H. Bakkaloğlu (Eds.), *Okul öncesi kaynaştırma*. Kök Yayıncılık.
- Kesiktaş, D. (2013). Okul öncesi kaynaştırma uygulamalarında ailelerle iletişim ve işbirliği. In B. Sucuoğlu and H. Bakkaloğlu (Eds.), *Okul öncesi kaynaştırma*. Kök Yayıncılık.
- Kırcaali-İftar, G. & Batu, S. (2007). *Inclusion* (3rd ed.). Kök Yayıncılık.
- Kurt, O. & Tekin-İftar, E. (2008). A comparison of constant time delay and simultaneous prompting within embedded instruction on teaching leisure skills to children with autism. *Topics in Early Childhood Special Education, 28*(1), 53-64. <https://doi.org/10.1177/0271121408316046>
- Losardo, A., & Bricker, D. (1994). Activity-based intervention and direct instruction: A comparison study. *American Journal on Mental Retardation, 98*(6), 744-765. <https://doi.org/10.1177/0271121408316046>
- Macy, M. (2007). Theory and theory-driven practices of activity based intervention. *Journal of Early and Intensive Behaviour Intervention 4*(3), 561-585. <https://doi.org/10.1037/h0100392>
- Macy, M. G., & Bricker, D. D. (2007). Embedding individualized social goals into routine activities in inclusive early childhood classrooms. *Early Child Development and Care, 177*(2), 107-120. <https://doi.org/10.1080/03004430500337265>
- MoNE. (2013). *Okul öncesi eğitim programı*. https://mufredat.meb.gov.tr/Dosyalar/20195712275243-okuloncesi_egitimprogrami.pdf
- MoNE. (2018). *Özel eğitim hizmetleri yönetmeliği*. https://orgm.meb.gov.tr/meb_iys_dosyalar/2018_07/09101900_ozel_egitim_hizmetleri_yonetmeliği_07072018.pdf
- NAC. (2015). *Findings and conclusions: National standards project, Phase 2: Addressing the need for evidence-based practice guidelines for autism spectrum disorder*. <https://nationalautismcenter.org/national-standards/phase-2-2015/>
- NAEYC. (2013). *Professional preparation standards self review instrument*. <https://www.naeyc.org/sites/default/files/globally-shared/downloads/PDFs/our-work/higher-ed/NAEYC-Prof-Prep-Standards-Self-Review-Instrument.pdf>
- Noonan, M. J., & McCormick, L. (2006). *Young children with disabilities in natural environments: Methods and procedures*. Paul H. Brookes Publishing.
- Notari-Syverson, A., & Schuster, S. (1995). Putting real-life skills into IEP/IFSPs for infants and young children. *Teaching Exceptional Children, 27*(2), 29-32. <https://doi.org/10.1177/004005999502700207>
- NPDCI (2009). *Research synthesis points quality inclusive practices*. https://npdci.fpg.unc.edu/sites/npdci.fpg.unc.edu/files/resources/NPDCI-ResearchSynthesisPointsInclusivePractices-2011_0.pdf
- Odluyurt, S. (2011). The effects of constant time delay embedded into teaching activities for teaching the names of clothes for preschool children with developmental disabilities. *Kuram ve Uygulamada Eğitim Bilimleri, 11*(3), 1457-1460.
- Odluyurt, S., & Batu E. S. (2010). Gelişimsel yetersizlik gösteren çocuklara kaynaştırmaya hazırlık becerilerinin öğretimi. *Kuram ve Uygulamada Eğitim Bilimleri, 10*(3), 1533-1572.
- Odom, S. L. (2000). Preschool inclusion: What we know and where we go from here. *Topics in Early Childhood Special Education, 20*(1), 20-27. <https://doi.org/10.1177/027112140002000104>
- Oğuzkan, Ş. & Oral, G. (1997). *Okul öncesi eğitimi*. Milli Eğitim Basımevi.
- Oktay, A. (2002). *Yaşamın sihirli yılları*. (3rd ed.). Epsilon Yayıncılık.
- Özdemir, H., & Ahmetoğlu, E. (2012). Okul öncesi öğretmenlerinin yaşları ve mesleki deneyimleri açısından kaynaştırma uygulamalarına ilişkin görüşlerinin incelenmesi. *Journal of Educational and Instructional Studies in the World, 2*(1), 68-74.
- Özen, A., Ergenekon, Y., Kürkçüoğlu Ülke, B & Genç, D. (2013). Kaynaştırma öğrencisi olan okul öncesi öğretmenlerinin sınıflarında yaptıkları öğretim uygulamalarının belirlenmesi. *Anadolu Üniversitesi Sosyal Bilimler Dergisi, 13*(2), 153-166.
- Pretti-Frontczak, K., & Bricker, D. (2001). Use of the embedding strategy during daily activities by early childhood education and early childhood special education teachers. *Infant-Toddler Intervention: The Transdisciplinary Journal, 11*(2), 111-28.
- Pretti-Frontczak, K., & Bricker, D. (2007). *An activity- based approach to early intervention* (3rd ed.). Paul H. Brookes Publishing.

- Seçer, Z. (2010). An analysis of the effects of in-service teacher training on Turkish preschool teachers' attitudes towards inclusion. *International Journal of Early Years Education*, 18(1), 43-53. <https://doi.org/10.1080/09669761003693959>
- Sıgırtmaç, A. D., Hoş, G., & Abbak, B. S. (2011). Okul öncesi öğretmenlerinin kaynaştırma eğitiminde yaşanan sorunlara yönelik kullandıkları çözüm yolları ve önerileri. *Ahi Evran Üniversitesi Kırşehir Eğitim Fakültesi Dergisi*, 12(4), 205-223.
- Snyder, P. A., Rakap, S., Hemmeter, M. L., McLaughlin, T. W., Sandall, S., & McLean, M. E. (2015). Naturalistic instructional approaches in early learning a systematic review. *Journal of Early Intervention*, 37(1), 69-97. <https://doi.org/10.1177/1053815115595461>
- Sucuoğlu, B. (2004). Türkiye'de kaynaştırma uygulamaları: Yayınlar/araştırmalar. *Ankara Üniversitesi Eğitim Bilimleri Fakültesi Özel Eğitim Dergisi*, 5(2), 15-23.
- Sucuoğlu, B. N., Bakkaloğlu, H., Akalın, S., Demir, Ş., & İşcen-Karasu, F. (2015). The effects of the preschool inclusion program on teacher outcomes in Turkey. *Journal of Early Childhood Teacher Education*, 36(4), 324-341. <https://doi.org/10.1080/10901027.2015.1105328>
- Sucuoğlu, B., Bakkaloğlu, H., İşcen-Karasu, F., Demir, Ş. & Akalın, S. (2014). Preschool teachers' knowledge about inclusion. *Educational Sciences: Theory & Practice*, 14(4), 1477-1483. <http://dx.doi.org/10.12738/estp.2014.4.2078>
- Sucuoğlu, B.; Bakkaloğlu, H.; İşcen-Karasu, F., Demir, Ş. and Akalın, S. (2013). Inclusive preschool teachers: Their attitudes and knowledge about inclusion. *International Journal of Early Childhood Education*. 5(2), 107-128. <https://doi.org/10.20489/intjecs.107929>
- Tekin-İftar, E. (2008). *Erken çocukluk özel eğitiminde çağdaş*. In S. Eripek (Ed.), *Özel eğitim*. Anadolu Üniversitesi Açıköğretim Fakültesi Yayınları.
- Toelken, S., & Miltenberger, R. G. (2012). Increasing independence among children diagnosed with autism using a brief embedded teaching strategy. *Behavioral Interventions*, 27(2), 93-104. <https://doi.org/10.1002/bin.337>
- Toğram, B. (2004). *Doğal dil öğretim tekniklerinden tepki isteme modelinin öğretilmesinin etkililiği*. [Unpublished master's thesis]. Anadolu University.
- Tufan, M., & Yıldırım, Y. (2013). Okul öncesi öğretmenlerinin erken müdahale ve kaynaştırma kavramları hakkındaki bilgi düzeylerinin ve özel gereksinimli çocuklar için yaptıkları öğretimsel uyarlamaların incelenmesi. *Cumhuriyet International Journal of Education*, 2(4), 1-13.
- VanDerHeyden, A. M., Snyder, P., Smith, A., Sevin, B., & Longwell, J. (2005). Effects of complete learning trials on child engagement. *Topics in Early Childhood Special Education*, 25(2), 81-94. <https://doi.org/10.1177/02711214050250020501>
- Wolery, M., & Hemmeter, M. L. (2011). Classroom instruction background, assumptions, and challenges. *Journal of Early Intervention*, 33(4), 371-380. <https://doi.org/10.1177/1053815111429119>
- Yoder, P. J., & Warren, S. F. (2001). Relative treatment effects of two prelinguistic communication interventions on language development in toddlers with developmental delays varied by maternal characteristics. *Journal of Speech, Language, and Hearing Research*, 44(1), 224-237. [https://doi.org/10.1044/1092-4388\(2001/019\)](https://doi.org/10.1044/1092-4388(2001/019))