



Examining the Effectiveness of Drama Education Program on the Interaction and Social Skills of Children in Preschool Classes Applying Inclusive Practices *

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Abstract

This study was conducted to examine the effectiveness of the drama education on social interactions and social skills of children in preschool classes where inclusive practices are applied. In this study, an experimental design was used with control group through pretest-posttest follow-up design in order to evaluate the impact of the drama education on social interaction and collaboration, cooperation, and sharing behaviors of children. The research population was comprised of typically developing children and children with special needs, who are 60-66 months, attending independent preschools, which implement inclusive practices, functioning under the Ministry of National Education in Afyonkarahisar city center in academic year 2016-2017. The research sample was determined through the criterion sampling, which is among purposive sampling methods. In line with the aims of the study, the main criteria were determined as follows: there should be young children with disabilities in the class, the teacher should not have any previous training about drama except for the drama course during the undergraduate education, and the children should not have an additional drama education outside their curriculum. In line with the determined criteria, 18 children comprised the experimental group, and 18 children formed the control group. In the study, the "Interaction Rating Scale of Children (IRSC)" and "Collaboration-Cooperation-Sharing Behaviors Observation Form (CCSBOF)" were used. Hacettepe University Drama Education Program (HUDEP) was prepared by researchers to support the social interactions and collaboration, cooperation, and sharing behaviors of children in the classes, where the inclusive practices are performed. The program was implemented throughout 8 weeks and 16 sessions. In addition to preschool education programs, children in the experimental group were given HUDEP twice a week for 8 weeks. In order to observe the effects of HUDEP, pretest and posttest were applied together

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with the data collection tools, and the follow-up test was applied 1 month after the posttest. The result showed that the HUDEP implemented in the experimental group increased the interaction skills and collaboration, cooperation, and sharing behaviors of children. It was also observed that the interaction skills and collaboration-cooperation-sharing behaviors of children in the control group were also increased. In order to determine which group has higher increase, the pretest and posttest scores that children obtained from the scale were compared. As the conclusion of the comparison, it was determined that there was a statistically significant difference in favor of the experimental group.

Introduction

Today, it has gained importance to grow individuals, who can adapt to society, perform the tasks expected from them, and, most importantly, who are happy. Individuals who are born with genetic traits develop by interacting with their environment from the moment they open their eyes to the world, thus gaining positive social interaction skills through which they adapt to society.

Social skills are explained as the ability of individuals to belong to the social environment in which they live, to display positive behaviors to make oneself feel a part of society, to understand the feelings and thoughts of both oneself and those around while interacting with the individuals, and to interact with the those around (Genç, 2005; McGinnis, 2016; Merrell, 2003). Merrell (2003, p. 28) discussed the social skills under three titles, namely, "social cooperation," which includes skills such as complying with the regulations, waiting in line, collaboration, sharing, and working together; "social independence," which includes skills such as adapting to different environments and coping with problems; and "social interaction," which involves skills such as understanding and communicating about the behaviors and emotions of others. Social interaction includes children's interactions with their parents and peers, interactive communication, and positive interaction skills (Logan et al., 2016). As can be understood from the classification of Merrell (2003), individuals learn social skills by interacting with others.

The preschool period is the key period in the learning of social skills and the development of interaction, because the development of children is very fast in the preschool period, and the acquisition of the key elements of social skills such as collaboration, cooperation, and sharing behaviors and interaction skills is easy and permanent during this period (Eliason & Jenkins, 2008). Additionally, social skills and social interaction skills are the skills within the scope of social competence, and they are evaluated within the context of the wider ecological system of children. Factors in this system consist of children's individual characteristics (such as developmental level, temperament, self-regulation skills, disability status) and environmental factors. Environmental factors include characteristics of the family, cultural characteristics, educational environment offered to the child, and peer relationships (Odom, McConnell, & Brown, 2008). Peer interaction, playing a role for children in acquiring peer relationships, forms the basis of social development and interaction for children (Assen & Kernan, 2013). Typically developing children use a wide range of interaction skills such as gestures, mimics, and making eye contact when interacting with their peers (Charlop, Dennis, Carpenter, & Greenberg, 2010). Typically developing children have the opportunity to develop their social skills and interaction skills through both systematic activities in formal education environment and by the irregular street games they play among themselves.

Children with special needs do not have much opportunity to develop social interaction skills and social skills as they tend to participate very little in the games of typically developing children (Kennedy, 2018). Furthermore, there are significant difficulties for children with special needs in acquiring social skills and interaction skills (Charlop et al., 2010). Having weak social interaction skills

prevents children from communicating with their environment, causing them to behave negatively (Clarizio, 1997). Therefore, acquisition of social skills and interaction is also important for children with special needs. As a conclusion of a study on 36-68-month-old children conducted by Lin, Chen, Justice, and Sawyer (2019), it was reported that play interactions of children with special needs are lower than those of typically developing children. Children with special needs are rejected and excluded by typically developing children due to their insufficient development both in academic and social terms. Therefore, since they have no peer interaction, the development of their social skills and interaction skills cannot be supported. In order to prevent this situation, inclusive practices are implemented, in which children with special needs and typically developing children were brought together in the same educational environment, allowing them to spend time together. Based on the principle that children with special needs in the inclusive integration practices are able to model and imitate positive social behaviors by studying with typically developing children, special importance was attached to the development of their social and interaction skills (Flem, Moen, & Gudmundsdottir, 2004; Grubbs & Niemeyer, 1999; Mavrou, 2012). These skills can be listed as interacting with others, using certain social skills in their daily lives, controlling their behaviors, supporting their peers, and initiating and maintaining the communication, among others (Choi & Kim, 2003; Terpstra & Tamura, 2008). Inclusive practices encourage children with special needs and typically developing ones to socialize and interact together (Kwon, Elicker, & Kontos, 2011). However, it is still debated in research studies whether inclusive practices are effective in facilitating social interaction between children with special needs and typically developing children (Locke, Kasari, Rotheram-Fuller, Kretzmann, & Jacobs, 2013). As the result of a study examining the quality of the inclusive classes conducted by Bakkaloğlu, Sucuoğlu, and Yılmaz (2019), it was determined that inclusive classes received limited scores in the subjects of supporting the communication of children, adult participation in peer interaction, and feedback. As the result of a study examining the social play and social communication characteristics of a mentally disabled child in an inclusive class of a kindergarten, Duman and Koçak (2013) concluded that the child does not have social communication with his/her typically developing peers and plays parallel games. In previous research studies, certain conclusions were reached, such as social acceptance levels and social skills of children with special needs are lower than those of typically developing children (Bakkaloğlu, Sucuoğlu, & Özbek, 2019); typically developing children generally ignore children with special needs (Karadağ, Demirtaş, & Girli, 2014); children with autism are generally rejected and excluded in the classroom (Metin, Şenol, & Yumuş, 2015); and typically developing children do not communicate with children with special needs in activities that they are unsuccessful (Çulhaoğlu İmrak & Sığırtmaç, 2011). Additionally, it was stated that children with special needs have less developed social skills and interactions compared to typically developing children (Aykır & Çiftçi Tekinarslan, 2012; Demir, 2016). It is also emphasized that inclusive practices should be effectively implemented for a positive development of the interaction between children with special needs and typically developing children (Chen, Lin, Justice, & Sawyer, 2019). Moreover, children with special needs should highly participate in practices in general education classrooms for an effective implementation of inclusive practices and for the development of social skills and interaction skills of children with special needs (Kleinert et al., 2015; Long, 2019). The participation highlighted here is that, as the children with special needs participate in an activity, they interact at a high level with typically developing students during the activity (Long, 2019; McWilliam, 2010). For this reason, based on the fact that participation of children with special needs in inclusive practices will increase the social skills and interactions of both children with special needs and typically developing children, it is emphasized that while increasing the participation of children, specific programs should be implemented, which support their interaction and social skills (Terpstra & Tamura, 2008). As the conclusion of a study on supporting the classroom activity participation levels of inclusive students in primary school through the creative drama method conducted by Erdoğan, Arslantaş, and Kurnaz (2018), it was determined that there was an increase in interaction levels of children with special needs with both their friends and teachers and their participation levels. In addition, peer support practices can be implemented in inclusive environments to enhance social skills and interactions of children with special needs with typically developing

children. In peer support practices, typically developing children are trained to demonstrate and model positive social interaction and social skills for children with special needs in natural social contexts (Płatos & Wojaczek, 2018; Watkins et al., 2015). In a study conducted by Zhang and Wheeler (2011), it was concluded that peer support improved the positive social interaction between children with autism and typically developing children under the age of 8. In another study conducted by Özeydin, Tekin İftar, and Kaner (2008), it was concluded that the “Friendship Skills Development Program” implemented by typically developing children caused a positive development in the social interaction behaviors of children with special needs. It is stated that such delicately prepared inclusion practices will support the interaction skills and positive behaviors of all children in the classroom (National Council on Disability, 2018).

Providing social skills and social interaction program in the classrooms, where inclusive practices are carried out, is as important as how this program will be offered to children through which method. Choi and Kim (2003) reported that the main stages of the social skills program consist of talking to children about social skills, teaching positive-negative social situations, reviving these situations, and encouraging them to participate in discussions about behaviors. It is possible for children to understand each other and give positive responses in the classroom with the development of social and sustainable interaction (Bacanlı, 2000; Şenol & Metin, 2019). It is thought that it is important to use effective methods for the development of social interaction, playing an important role in children’s relationships with their peers. In addition, it is emphasized that children’s social skills are developed with effective methods using techniques such as modeling, role playing, and cognitive structuring (Önalan, 2006). Drama is one of these methods. It is a method that is performed in groups, is based on play, and allows children to have fun. It is stated that it has a positive effect on the social and emotional development of children (Gao & Hall, 2019) and social interactions since it occurs in groups (Wee, 2009). Drama method involves children’s social adaptation, self-control and interaction (McCaslin, 2006), and social skills (collaboration, cooperation, sharing, being kind and patient) (Chalmers, 2007). It effectively develops the kinesthetic, verbal linguistic, and interpersonal intelligence types stated by Gardner and the skills of empathy and sharing (Roper & Davis, 2000).

Since the social interaction and social skills are learnable and developable skills, the experiences that drama will provide to children will enable them to grow up as individuals with advanced social and interaction skills. Taking into account the impact of social interaction and social skills education on the development of children, it can be mentioned that in preschool classrooms where inclusive practices are applied, supporting the interaction between children and their social skills through drama will increase the interaction among the children, strengthening the friend relationships of all children, especially those with special needs. Supporting this view, previous research studies concluded that the application of drama practices improved the social skills of children with special needs (Akfirat, 2004; Avcioğlu, 2012; Guli, Semrud-Clikeman, Lerner, & Britton, 2013; Gültekin, 2014) and developed the peer acceptance and interaction skills (Akdenizli, 2016; Lerner & Mikami, 2012), children’s frequency of displaying positive behaviors (Minne & Semrud-Clikeman, 2012), and basic speaking skills, advanced speaking skills, relationship initiation skills, and relationship continuation skills (Önemli, Totan, & Abbasov, 2015). When these researches in the literature are examined, it is observed that there exist a limited number of studies where social interactions and social skills of children are supported by the drama method in preschool classes with inclusive practices. Therefore, this study aimed to examine the efficacy of the drama education on children’s social interactions and social skills in preschool classrooms where inclusive practices are applied. Social skills make it easier for individuals to adapt to the society they live in. It is possible for children to adapt to the society they live in from an early period, by helping them, cooperating, and sharing. When social skills are examined, it is stated that collaboration, cooperation, and sharing are the basis of social skills, and other skills are taught using these skills (Metin & Şenol, 2017). Social interaction emphasizes that children are in positive communication with each other. Social interaction skills include being in collaborative social interaction in the face of a situation, engaging in entrepreneurial (assertive) behaviors and expressing their thoughts positively, and controlling negative behaviors with self-control (Anme et al., 2014). In this direction, collaboration,

cooperation, and sharing were discussed within the scope of social skills. Social interaction has been examined in terms of collaborative interaction, self-control, and assertiveness.

In line with the aim of the research, answers were sought to the following questions:

- Is there a statistically significant difference in the social interaction skills, collaboration, cooperation, and sharing behaviors of preschool children in inclusive classes participating in the drama education program and without intervention?
- Do the social interaction skills, collaboration, cooperation, and sharing behaviors of preschool children in inclusive classes participating in the drama education program persist?

Method

Model of the Research

In this study, an experimental design, which is one of the qualitative research methods, was used in order to test the impact of drama education on children's social skills and social interactions. In this context, 2 × 3 mixed design was used (experiment and control group X pretest, posttest, and follow-up test). In mixed designs, there are at least two independent variables, whose effects are examined on the dependent variable (Büyüköztürk, Çakmak Kılıç, Akgün, Karadeniz, & Demirel, 2011). The dependent variable studied in this research was the "social interaction and social skills (collaboration, cooperation, and sharing) of children," and the independent variable is the "drama education program," whose effect on the social interaction and social skills (collaboration, cooperation, and sharing) is evaluated.

Research Population and Study Group

The research population was comprised of 2,890 typically developing children and 68 children with special needs, who are aged 60-66 months, attending independent preschools, which implement inclusive practices, functioning under the Ministry of National Education in Afyonkarahisar city center in the academic year 2016-2017. The research sample was determined through the criterion sampling, which is among purposive sampling methods.

In line with the aims of the study, in the selection of the preschool children participant, main inclusion criteria were implemented as follows: there should be two kindergartens, in which the inclusive practices are applied, each having children with disabilities in a milder form, the teachers of these classes should not have any previous training about drama, and the children should not have an additional drama education outside their curriculum. In line with the determined criteria, 18 children comprised the experimental group, and 18 children formed the control group. Among the children in the experimental group, 33.3% were female, while 66.7% were male. As per the control group, 61.1% were female, and 38.8% were male. Information about the children with special needs in the experimental and control groups was obtained from their teachers, indicating that they were diagnosed with a mental disability in a milder form, that they were female, and they were 60-66 months old.

Data Collection Tools

In the study, the "Interaction Rating Scale of Children (IRSC)" and "Collaboration-Cooperation-Sharing Behaviors Observation Form (CCSBOF)" were used. When the subdimensions of the measurement tools are examined, it is observed that both tools have a common subdimension, "collaboration." While CCSBOF measures whether children demonstrate collaboration skill, the IRSC measures the interaction levels of children while they are collaborating. Therefore, the collaboration subdimensions of both measurement tools were evaluated. The data collection tools were applied to the children before and after the implementation of the drama education program.

Interaction Rating Scale of Children (IRSC)

IRSC is a scale that evaluates the relationships of children with their peers by observing their social skills and their interactions in the daily environments. IRSC is composed of two parts. The first one is the "Behavioral Evaluation" part, consisting of 43 items and three subdimensions, namely, "Cooperation," "Self-control," and "Assertiveness." Children are coded as "yes (1 point)" if they display the stated behavior and "no (0 points)" if they do not. IRSC is an observation measurement scale, and the observations are employed by the researcher during the free playtime of children. Each child is observed separately during the observation. The observation process lasts 30-35 min for each child. The highest possible score is 43 points, and the lowest is 0 point in the scale. The second part is the "Impression Evaluation" section, consisting of three subdimensions, namely, "Harmony and Adaptation," "Impact," and "Group Solidarity." The researcher's impressions in this section are encoded with a five-point scale as "Definitely Not Obvious (1), Not Obvious (2), Neutral/Unstable (3), Clear (4), and Highly Clear (5)." They can get a maximum score of 15 points and a minimum score of 3 points. The Cronbach alpha value, which is the internal consistency coefficient, of the scale is .87, and peer-to-peer reliability is .90 (Anme et al., 2014). The internal consistency coefficient of the scale adapted to Turkish by Şenol and Metin (2018) was found to be .89 for the Behavioral Evaluation part and .83 for the Impression Evaluation part. Peer-to-peer reliability was calculated as .80 for the Behavioral Evaluation part and .82 for the Impression Evaluation Part.

Collaboration-Cooperation-Sharing Behaviors Observation Form (CCSBOF)

Developed by Metin and Şenol (2017), the CCSBOF is an observation form that determines the collaboration, cooperation, and sharing behaviors of 36-72-month-old children attending the classes where inclusive practices are applied. Observations are made by the researcher. Children are observed using the intermittent observation technique. Intermittent observation is conducted at random or in designated time zones. Accordingly, five children are selected from the class. Each of the selected five children are observed for five min. The first child is then observed again, and the same five children are observed again in turn. Finally, the same path is followed once again. After each observation, the researcher fills out the observation form. Thus, each child is observed three times for a total of 15 min. It should be noted that the three observations of each child must be collected on the same day.

The CCSBOF consists of three subdimensions and 22 items. These subdimensions are "Cooperation," "Sharing," and "Collaboration." In the form of observation, the items are rated as "Always Observed," "Sometimes Observed," and "Never Observed." The Cronbach's alpha internal consistency reliability coefficient of the CCSBOF was determined as .80 for the sum of the scale. As per the subdimensions, it was determined as .75 for the Cooperation subdimension, .69 for the Collaboration subdimension, and .68 for the Sharing subdimension (Metin & Şenol, 2017).

Hacettepe University Drama Education Program (HUDEP)

Hacettepe University Drama Education Program (HUDEP) is a program comprising of 16 drama activities prepared by the researchers. Preschool education for the development of HUDEP (Eliason & Jenkins, 2008; Ministry of National Education [MoNE], 2013), inclusive practices (Assen & Kernan, 2013; Terpstra & Tamura, 2008), social skills education (Bacanlı, 2000; McGinnis, 2016), drama (Chalmers, 2007; Jackson & Bynum, 1997; Miller, Rynders, & Schleien, 1993). As a result of the literature review, the importance of increasing the interaction between children with special needs and developing typically and gaining cooperation, cooperation, and sharing behaviors in increasing interaction has been realized in inclusion practices. In addition, it was thought that the use of permanent and living methods by children in developing social interaction and cooperation, collaboration, and sharing behaviors between children with special needs and developing typically would increase the effectiveness of the program. Therefore, drama method was used in HUDEP. HUDEP was designated for typically developing children and children with special needs in order to support the interaction between children with special needs and typically developing children attending the preschools, where inclusive practices are applied. It aims to develop children's interaction skills, to ensure their interaction with different friends, and to support their collaboration, cooperation, and sharing behaviors. A

program developed by researchers particularly for this study, HUDEP has not previously been used by other researchers. The activities in HUDEP were prepared for children 60-66 months old in accordance with the format given in the Ministry of National Education Preschool Education Program. Acquisition, indicators, and concepts were written in accordance with the stages of children's development by using the Ministry of National Education Preschool Education Program, including the acquisitions presented in Table 1 (MoNE, 2013). In each session, HUDEP's dramatic situations (a concept containing the conflicts mentioned in the drama, the problem to be solved, the tension, a problem, and the solution of the problem) were presented to the children within the classroom environment, home environment, and in different social environments in the context of social situations that they experience. This social situation was resolved in the animation stage (in social situations, certain events were included, such as a child accidentally does something that may negatively affect one or more children). In order to improve children's interaction skills and collaboration, cooperation, and sharing behaviors, each session included relevant acquisitions and indicators (especially in the social and emotional area) stated in the Ministry of National Education Preschool Education Program (MoNE, 2013). All techniques were written from easy to difficult and from simple to complex. Dramatization of the activities was arranged according to the child with a mental disability of a milder form. Family participations were written into the activities. Different and interesting materials were included in the activities in order to increase the participation of children. Each activity was prepared with a content lasting about 1 h.

Table 1. Hacettepe University Drama Education Program

Activity	Content (Dramatic Situation Included)	Acquisitions involved*
1. I learn myself	Children recognizing their own characteristics	Cognitive Development Acquisition 3 Social Emotional Development Acquisitions 1, 8 Language Development Acquisitions 2, 5, 7, 18, 19, 20 Motor Development Acquisition 5
2. I learn my friends	Children discern and recognize the characteristics of their friends	Cognitive Development Acquisition 19 Language Development Acquisition 5 Social Emotional Development Acquisitions 3, 4, 8, 18, 19, 20
3. Dotty	Living together with individuals with different characteristics	Language Development Acquisitions 5, 7, 8 Social Emotional Development Acquisitions 4, 5, 8, 18, 19, 20 Cognitive Development Acquisition 2
4. Friends of Can	Living together with individuals with different characteristics	Language Development Acquisitions 5, 10 Social Emotional Development Acquisitions 4, 5, 8 Cognitive Development Acquisitions 1, 3, 18, 19, 20 Motor Development Acquisition 1

Table 1. Continued

Activity	Content (Dramatic Situation Included)	Acquisitions involved*
5. They Spoiled our Game	Children accidentally spoil the game of other children	Cognitive Development Acquisition 17 Language Development Acquisitions 2, 5, 10 Social Emotional Development Acquisitions 3, 8, 17, 18, 19, 20
6. Tangerine	Having no meal for/giving no meal to one of the children	Language Development Acquisition 8 Social Emotional Development Acquisitions 3, 8, 12, 18, 19, 20 Cognitive Development Acquisitions 1, 17, 19
7. No, No, None of My Business!	A child messes up the home, and when he/she argues with the mother, she reacts negatively	Language Development Acquisitions 5, 7 Social Emotional Development Acquisitions 8, 15, 18, 19, 20 Cognitive Development Acquisitions 3, 17, 19
8. Minti's Remote Control	While a child is watching his/her favorite program on TV, his/her sibling comes, takes the TV remote controller, and changes the channel without asking him/her	Social Emotional Development Acquisitions 4, 8, 17 Cognitive Development Acquisitions 2, 15, 19
9. Play Dough	A child wants to join to the game of his two peers, but they refuse to accept him/her by saying "Our teacher said that only two can play"	Cognitive Development Acquisition 18, 19 Language Development Acquisitions 8, 10 Social Emotional Development Acquisition 3
10. Zip Zip's Meal	A child accidentally bumps to another's meal while passing by, toppling the glass of water onto his/her meal	Motor Development Acquisition 1 Cognitive Development Acquisitions 3, 19 Language Development Acquisitions 5, 7, 8 Social Emotional Development Acquisition 17
11. Don't be afraid Little Bear	In a cold winter day, the Little Bear cannot make sense of sounds such as wind and rain coming from outside and cannot sleep because the inside of the cave is dark	Language Development Acquisition 7 Social Emotional Development Acquisitions 4, 5, 8, 15
12. Shiny Ball	The grasshopper finds a ball in the shade of the leaves and hides without mentioning to anyone	Language Development Acquisition 10 Social Emotional Development Acquisitions 3, 5, 8 Cognitive Development Acquisitions 2, 19

Table 1. Continued

Activity	Content (Dramatic Situation Included)	Acquisitions involved*
13. I Apologize	A child's favorite toy is accidentally broken by a friend	Language Development Acquisitions 5, 8 Social Emotional Development Acquisitions 3, 4, 5, 8 Cognitive Development Acquisition 19
14. Blocks	A child attempts to join two peers, who are playing a game, but they neither answer him/her nor accept him/her to the game and continue their game	Language Development Acquisitions 2, 8, 10 Social Emotional Development Acquisitions 3, 4, 5, 8 Cognitive Development Acquisitions 2, 19
15. Bagu and Vagu	Because his/her friend plays with the toy for too much time in the classroom, the turn never comes to the child	Language Development Acquisitions 8, 10 Social Emotional Development Acquisitions 5, 7, 8, 17 Cognitive Development Acquisition 19 Motor Development Acquisition 5
16. Prince-Princess	A child always acts out a prince/princess and tells this crying and screaming	Language Development Acquisitions 3, 8 Social Emotional Development Acquisitions 7, 8, 17 Cognitive Development Acquisition 19

* The content of the acquisitions could not be written due to their large volume. The contents of the acquisitions can be accessed from the Ministry of National Education Preschool Education Program (MoNE, 2013).

In the activities during the first three weeks of the HUDEP, drama activities were implemented, which helped children recognize their own characteristics, recognize the characteristics of the children around them, and discern and respect the different characteristics of themselves and the children around them. In the following sessions, activities were implemented, which improved children's interaction skills, positive behaviors, and relationships with their peers and other friends with special needs. Table 1 presents information regarding the contents of all of the activity programs.

HUDEP was offered for consideration of seven experts in the areas of child development, preschool education, special education, drama, and curriculum development in education. The experts were asked to state in the expert opinion form whether the HUDEP draft was suitable for the development of the acquisitions and indicators, the learning processes, the materials, words and concepts used, the interaction skills of the drama stages, and the collaboration, cooperation, and sharing behaviors. In line with the opinions and suggestions of the experts, arrangements have been made by adding activities in which children will be physically active and expanding the adaptation part, and HUDEP has been finalized. The first four activities of HUDEP were pre-applied in a kindergarten of a different preschool with students bearing the same inclusion criteria. After the pre-application, interesting materials, songs, and rhymes were added to HUDEP, and they were rearranged, and HUDEP was made ready for application.

Data Collection

Prior to the collection of data, the researchers participated in the free playtimes of their preschool classes. In this process, the researchers met the children by participating in their games in the learning centers. In the study, the researchers obtained data by observing the children. Observations were made at different times through two different measurement tools. The observations through the measurement tools were made separately due to several reasons, for example, the behaviors of the two measuring instruments will be difficult to observe at the same time, the researcher can forget the observed behavior, and the most important is that the observation procedure of both measuring tools was different (the observation procedure was explained in the measurement tools part). The data were collected from two kindergarten classes in two different preschools, which have typically developing children aged 60-66 months and one child with disability in a milder form, during the spring term of the academic year 2016-2017.

As part of the pretest, the IRSC and CCSBOF were administered to children in the experimental and control groups between February 13 and February 17, 2017. For the implementation of the scale, camera recording was made during the free playtime. Children were monitored for about 30-35 min for the "IRSC" and 15 min for the "CCSBOF." These observations were employed separately for each child.

After pretests were employed, HUDEP was administered to the experimental group between February 20 and April 14, 2017. HUDEP was not administered to the children in the control group.

After the implementation of HUDEP, the scales were applied as the posttests to children in the experimental and control groups between April 17 and April 24, 2017.

Four weeks after the implementation of the final tests, scales were applied for follow-up test to children in the experimental group between May 22 and May 29, 2017, in order to measure the follow-up of HUDEP. Since no intervention was employed to the children in the control group, the follow-up test was not administered to them.

Data Analysis

Data from a child with special needs, who was a natural member of the class, were also included in the analysis of the data. As the conclusion of the Shapiro-Wilk test, which was applied to pretest, posttest, follow-up test, and difference points of all scales and their subdimensions, results were obtained displaying or not displaying normal distribution. Therefore, independent samples t-test (Student t-test) was used for values displaying normal distribution in the paired comparisons, and the Mann-Whitney U test was applied for values that did not display normal distribution. In the dependent groups, for the comparisons of differences between two means, paired samples t-test was implemented for values that displayed normal distribution, and the Wilcoxon signed-rank test was used for values that did not show normal distribution. For the significant p values, the "Cohen d" effect size was calculated. As reliability analysis, interobserver agreement correlation coefficient was applied (Alpar, 2014).

Interobserver Agreement Correlation Coefficient

When interobserver agreement correlation results were investigated, it was observed that the behavior evaluation section ($r = 1.00$) and evaluation of impression section ($r = 0.99$) of the IRSC had perfect correlation, as well as CCSBOF ($r = 1.00$).

Ethical Report

Approval was obtained from the Ethics Committee of Hacettepe University prior to the application (document numbered 35853172/431-3012 of October 4, 2016).

Results

The findings of this study, which was conducted to examine the impact of drama education program on the social interactions and collaboration, cooperation, and sharing behaviors of children in the preschools, where inclusive practices are applied are presented below.

Table 2. Comparison of the pretest and posttest scores of the children in the experimental and control groups from the IRSC Behavioral Evaluation part

IRSC	Tests	Groups	A-MWU			B-Wilcoxon			C-Wilcoxon				
			Mean ± SD	Min.-Max.	U	p	d	z	p	d	z	p	d
Cooperation	Pretest	Experimental	5.67±2.89	2-12	-199	0.056							
		Control	7.67±2.77	3-13									
	Posttest	Experimental	18.28±0.96	16-20	5.19	0.0001*	2.941						
		Control	8.89±1.71	6-11									
Self-control	Pretest	Experimental	4.11±2.49	1-8	0.57	0.564							
		Control	3.61±1.75	0-7									
	Posttest	Experimental	8.67±0.77	8-10	4.55	0.0001*	2.979						
		Control	5.61±2.06	2-9									
Assertiveness	Pretest	Experimental	3.28±2.72	0-10	-1.36	0.173							
		Control	4.11±1.37	1-6									
	Posttest	Experimental	12.11±0.68	11-13	5.1	0.0001*	2.946						
		Control	6.28±1.81	4-11									
Total	Pretest	Experimental	13.06±6.65	3-30	-1.2	0.204							
		Control	15.39±3.78	8-21									
	Posttest	Experimental	39.06±1.63	37-42	21.8	0.0001*	7.289						
		Control	20.78±3.15	16-28									

*p < .016 (Bonferroni correction has been applied)

A: Comparison of pretest or posttest results

B: Comparison of the pretest and posttests of the control group

C: Comparison of the pretest and posttests of the experimental group

It was determined that there was statistically no significant difference between the average pretest scores of children obtained from "Cooperation (U = -199, p > .05), Self-control (U = -0.57, p > .05), and Assertiveness (U = -1.36, p > .05)" subdimensions of the IRSC Behavioral Evaluation part and as a whole (t = -1.2, p > .05). On the other hand, it was observed that the experimental group had statistically significantly higher posttest average scores concerning the "Cooperation (U = -5.19, p < .05), Self-control (U = -4.55, p < .05), and Assertiveness (U = -5.1, p < .05)" subdimensions of IRSC Behavioral Evaluation part and as a whole (t = 21.8, p < .05) (Table 1).

It was determined that the average posttest scores of the children in the experimental group were statistically significantly higher compared to their average pretest scores, and they obtained the following scores in "Cooperation (z = -3.72, p < .05), Self-control (z = -3.63, p < .05), and Assertiveness (z = -3.73, p < .05)" subdimensions of the IRSC Behavioral Evaluation part and as a whole (t = -15.8, p < .05) (Table 1).

It was observed that the children in the control group obtained the following scores in "Self-control (z = -2.65, p < .05) and Assertiveness (z = -3.3, p < .05)" subdimensions of the IRSC Behavioral Evaluation part and as a whole (t = -5.2, p < .05). It was also seen that their average posttest scores were statistically significantly higher than the average pretest scores. As per the "Cooperation" (z = -1.6, p > .05) subdimension of the Behavioral Evaluation part, there is statistically no significant difference between the average posttest scores and the average pretest scores (Table 1).

At the same time, when the effect sizes of the comparisons with a significance level below the p value are evaluated, it is seen that their effect sizes are large (Table 2).

Table 3. Comparison of the posttest and follow-up test scores of the children in the experimental group obtained from the IRSC Behavioral Evaluation part

IRSC	Tests	Experimental Group		Wilcoxon Rank Test		
		Mean \pm SD	Min.-Max.	z	p	d
Cooperation	Posttest	18.28 \pm 0.96	16-20	-2.81	0.005*	1.768
	Follow-up Test	18.94 \pm 0.94	17-20			
Self-control	Posttest	8.67 \pm 0.77	8-10	-0.378	0.705	
	Follow-up Test	8.72 \pm 0.83	8-10			
Assertiveness	Posttest	12.11 \pm 0.68	11-13	-2.53	0.011*	1.486
	Follow-up Test	12.56 \pm 0.62	11-13			
Total	Posttest	39.06 \pm 1.63	37-42	t	p	d
	Follow-up Test	40.22 \pm 1.7	38-43	-3.4	0.003*	0.697

*p<.05

Examining Table 3, it is observed that the average scores that the children in the experimental group obtained from the follow-up test were statistically significantly higher compared to their average scores obtained from the posttest in "Cooperation ($z = -2.81$, $p < .05$) and Assertiveness ($z = -2.53$, $p < .05$)" subdimensions of the IRSC Behavioral Evaluation part and as a whole ($t = -3.4$, $p < .05$).

At the same time, when the effect sizes of the comparisons with a significance level below the p value are evaluated, it is seen that their effect sizes are large for the Cooperation and Assertiveness subdimensions, while they are medium for the total scale (Table 3).

Table 4. Comparison of the pretest and posttest score differences of the children in the experimental and control groups obtained from the IRSC Behavioral Evaluation part

IRSC	Group	Experimental and control group		t-test		
		Mean \pm SD	Min.-Max.	t	p	d
Cooperation	Experimental	12.61 \pm 3.13	5-17	11.1	0.0001*	3.727
	Control	1.22 \pm 2.98	-4-6			
Self-control	Experimental	4.56 \pm 2.71	0-8	2.9	0.006*	0.978
	Control	2 \pm 2.52	-4-5			
Assertiveness	Experimental	8.83 \pm 2.79	2-12	8.5	0.0001*	2.855
	Control	2.17 \pm 1.76	-1-5			
Total	Experimental	26 \pm 6.98	7-35	10.6	0.0001*	3.546
	Control	5.39 \pm 4.34	-1-16			

*p<.016 (Bonferroni correction has been applied)

Examining Table 4, it is observed that there were statistically significant differences between the posttest and pretest score differences of the children in the experimental and control groups obtained from the "Cooperation ($t = 11.1$, $p = .0001$), Self-control ($t = 2.9$, $p = 0.006$), and Assertiveness ($t = 8.5$, $p = .0001$)" subdimensions of the IGSC Behavioral Evaluation part and as a whole ($t = 10.6$, $p = .0001$).

When the effect sizes of the comparisons with a p value below the significance level are evaluated, it is seen that their effect sizes are large (Table 4).

Table 5. Comparison of the pretest and posttest scores of the children in the experimental and control groups obtained from the IRSC Impression Evaluation part

IRSC	Tests	Groups	Experimental and control groups		A-MWU			B-Wilcoxon		C-Wilcoxon		
			Mean ± SD	Min.-Max.	U	P	d	z	p	d	z	p
Harmony and Adaptation	Pretest	Experimental	2.28±0.83	1-3	-0.5	0.615						
		Control	2.22±0.55	1-3								
	Posttest	Experimental	4.78±0.43	4-5	-5.4	0.0001*	2.93					
		Control	2.72±0.46	2-3								
Impact	Pretest	Experimental	2.06±0.8	1-3	-0.49	0.622						
		Control	1.94±0.54	1-3								
	Posttest	Experimental	4.56±0.51	4-5	-5.29	0.0001*	2.94					
		Control	2.56±0.51	2-3								
Group Solidarity	Pretest	Experimental	2.11±0.9	1-3	-0.7	0.473						
		Control	1.94±0.54	1-3								
	Posttest	Experimental	4.89±0.32	4-5	-5.49	0.0001*	2.92					
		Control	2.67±0.49	2-3								
Total	Pretest	Experimental	6.44±2.43	3-9	-0.61	0.543						
		Control	6.11±1.41	3-9								
	Posttest	Experimental	14.22±1.06	12-15	-5.22	0.0001*	2.94					
		Control	7.94±1.16	6-9								

*p < .016 (Bonferroni correction has been applied)

A: Comparison of pretest or posttest results

B: Comparison of the pretest and posttests of the control group

C: Comparison of the pretest and posttests of the experimental group

Examining Table 5, it was observed that there was statistically no significant difference between the experimental and control groups concerning the average pretest scores obtained from the “Harmony and Adaptation ($U = -502, p > .05$), Impact ($U = -0.49, p > .05$), and Group Solidarity ($U = -0.7, p > .05$)” subdimensions of the IRSC Impression Evaluation part and as a whole ($U = -0.61, p > .05$). On the other hand, it is observed that the average posttest scores of the experimental group were statistically significantly higher according to the values obtained from the “Harmony and Adaptation ($U = -5.4, p > .05$), Impact ($U = -5.29, p > .05$), and Group Solidarity ($U = -5.49, p > .05$)” subdimensions and as a whole ($U = -5.22, p > .05$).

It is observed that the average posttest scores of the children in the experimental group were statistically significantly higher than those of their pretest scores obtained from the “Harmony and Adaptation ($z = -3.7, p < .05$), Impact ($z = -3.7, p < .05$), and Group Solidarity ($z = -3.7, p < .05$)” subdimensions in the IRSC Impression Evaluation part and as a whole ($z = -3.74, p < .05$).

It is observed that the average posttest scores of the children in the control group were statistically significantly higher than those of their pretest scores obtained from the “Harmony and Adaptation ($z = -2.49, p < .05$), Impact ($z = -3.05, p < .05$), and Group Solidarity ($z = -2.9, p < .05$)” subdimensions in the IRSC Impression Evaluation part and as a whole ($z = -3.24, p < .05$).

When the effect sizes of the comparisons with a p value below the significance level are evaluated, it is seen that their effect sizes are large (Table 5).

Table 6. Comparison of the posttest and follow-up test scores of the children in the experimental group obtained from the IRSC Impression Evaluation part

IRSC	Tests	Experimental Groups		Wilcoxon	
		Mean ± SD	Min.-Max.	z	p
Harmony and Adaptation	Posttest	4.78±0.43	4-5	-1.7	0.083
	Follow-up Test	4.94±0.24	4-5		
Impact	Posttest	4.56±0.51	4-5	-1	0.317
	Follow-up Test	4.61±0.5	4-5		
Group Solidarity	Posttest	4.89±0.32	4-5	-0.577	0.564
	Follow-up Test	4.83±0.38	4-5		
Total	Posttest	14.22±1.06	12-15	-1	0.317
	Follow-up Test	14.39±0.92	12-15		

*p < .05

Examining Table 6, it was observed that there was statistically no significant difference between the posttest scores and the follow-up test scores of the children in the experimental group obtained from the “Harmony and Adaptation (z = -1.7, p < .05), Impact (z = -1, p < .05), and Group Solidarity (z = -0.577, p < .05)” subdimensions of the IRSC Impression Evaluation part and as a whole (z = -1, p < .05).

Table 7. Comparison of the pretest and posttest score differences of the children in the experimental and control groups obtained from the IRSC Impression Evaluation part

IRSC	Groups			MWU		
		Mean ± SD	Min.-Max.	U	p	d
Harmony and Adaptation	Experimental	2.5±0.79	1-4	-4.9	0.0001*	2.958
	Control	0.5±0.71	-1-2			
Impact	Experimental	2.5±0.79	1-4	-4.9	0.0001*	2.958
	Control	0.61±0.61	0-2			
Group Solidarity	Experimental	2.78±0.94	1-4	-4.7	0.0001*	2.97
	Control	0.72±0.75	0-2			
Total	Experimental	7.78±2.32	4-12	8.8	0.0001*	2.932
	Control	1.83±1.69	-1-5			

*p < .016 (Bonferroni correction has been applied)

Examining Table 7, it is observed that there were statistically significant differences between the posttest and pretest score differences of the children in the experimental and control groups obtained from the “Harmony and Adaptation (U = -4.9, p < .05), Impact (U = -24.9, p < .05), and Group Solidarity (U = -4.7, p < .05)” subdimensions of the IRSC Impression Evaluation part and as a whole (t = 8.8, p < .05).

When the effect sizes of the comparisons with a p value below the significance level are evaluated, it is seen that their effect sizes are large (Table 7).

Table 8. Comparison of the pretest and posttest scores of the children in the experimental and control groups obtained from the CCSBOF

CCSBOF	Tests	Groups			A-MWU			B-Wilcoxon			C-Wilcoxon		
			Mean ± SD	Min.-Max.	U	p	d	z	p	d	z	p	d
Cooperation	Pretest	Experimental	9.83±2.07	7-15	-0.017	0.987							
		Control	9.83±1.2	7-11									
	Posttest	Experimental	19.83±1.04	18-21	-5.22	0.0001*	2.939	-2.96	0.003*	1.948	-3.73	0.0001*	3.690
		Control	11.06±0.87	9-13									

Table 8. Continued

CCSBOF	Tests	Groups			A-MWU			B-Wilcoxon			C-Wilcoxon				
			Mean ± SD	Min.-Max.	U	p	d	z	p	d	z	p	d		
Collaboration	Pretest	Experimental	11.78±1.59	10-16	-0.373	0.709									
		Control	11.83±1.38	10-14											
	Posttest	Experimental	28.67±0.91	27-30	-5.22	0.0001*	2.939			-3.74	0.0001*	3.734	-3.75	0.0001*	3.780
		Control	15.39±1.33	13-18											
Sharing	Pretest	Experimental	6.28±1.23	5-9	-0.546	0.585									
		Control	6±0.91	5-8											
	Posttest	Experimental	14.39±0.78	13-15	-5.23	0.0001*	2.938			-3.66	0.0001*	3.411	-3.75	0.0001*	3.780
		Control	7.94±0.87	7-10											
Total	Pretest	Experimental	27.89±3.51	22-37	0.215	0.831									
		Control	27.67±2.61	22-31											
	Posttest	Experimental	62.89±2.27	59-66	35.2	0.0001*	11.754			-9.1	0.0001*	2.595	-43.9	0.0001*	11.841
		Control	34.39±2.57	29-39											

*p < .016 (Bonferroni correction has been applied)

A: Comparison of pretest or posttest results

B: Comparison of the pretest and posttests of the control group

C: Comparison of the pretest and posttests of the experimental group

Examining Table 8, it was observed that there was statistically no significant difference between the groups concerning the average pretest scores obtained from the CCSBOF “Cooperation (U = -0.017, p > .05), Collaboration (U = -0.373, p > .05), and Sharing (U = -199, p > .05)” subdimensions. On the other hand, it was observed that the average posttest scores of the experimental group were statistically significantly higher in the “Cooperation (U = -5.22, p > .05), Collaboration (U = -5.22, p > .05), and Sharing (U = -5.23, p > .05)” subdimensions.

It is observed that the average posttest scores of the children in the experimental group were statistically significantly higher than their average pretest scores in the “Cooperation (z = -3.73, p < .01), Collaboration (z = -3.75, p < .01), and Sharing (z = -3.75, p < .01)” subdimensions of the CCSBOF.

It is observed that the average posttest scores of the children in the control group were statistically significantly higher than their average pretest scores in the “Cooperation (z = -2.96, p < .05), Collaboration (z = -3.74, p < .05), and Sharing (z = -3.66, p < .05)” subdimensions of the CCSBOF and as a whole (t = -9.1, p < .05).

When the effect sizes of the comparisons with a p value below the significance level are evaluated, it is seen that their effect sizes are large (Table 8).

Table 9. Comparison of the CCSBOF posttest and follow-up test scores of the children in the experimental group

CCSBOF	Tests	Experimental group		Wilcoxon		
		Mean ± SD	Min.-Max.	z	p	d
Cooperation	Posttest	19.83±1.04	18-21	-3.03	0.002*	3.075
	Follow-up test	20.67±0.59	19-21			
Collaboration	Posttest	28.67±0.91	27-30	-3.35	0.001*	3.054
	Follow-up test	29.44±0.7	28-30			
Sharing	Posttest	14.39±0.78	13-15	-2.44	0.014*	3.114
	Follow-up test	14.72±0.57	13-15			
Total	Posttest	62.89±2.27	59-66	-3.3	0.001*	3.057
	Follow-up test	64.83±1.15	63-66			

*p < .05

Examining Table 9, it was observed that the average follow-up test scores of the children in the experimental group were statistically significantly higher than their average posttest scores in the “Cooperation ($z = -3.03$, $p < .01$), Collaboration ($z = -3.35$, $p < .01$), and Sharing ($z = -2.44$, $p < .01$)” subdimensions.

When the effect sizes of the comparisons with a p value below the significance level are evaluated, it is seen that their effect sizes are large (Table 9).

Table 10. Comparison of the CCSBOF pretest and posttest score differences of the children in the experimental and control groups

CCSBOF	Tests	Control groups		MWU		
		Mean \pm Sd	Min.-Max.	u	p	d
Cooperation	Posttest	10 \pm 2.22	6-14	-5.15	0.0001*	2.943
	Follow-up test	1.22 \pm 1.26	0-4			
Collaboration	Posttest	16.89 \pm 1.57	14-20	-5.16	0.0001*	2.942
	Follow-up test	3.56 \pm 1.79	1-7			
Sharing	Posttest	8.11 \pm 1.32	6-10	-5.7	0.0001*	2.911
	Follow-up test	1.94 \pm 1.21	0-4			
Total	Posttest	35 \pm 3.38	29-43	26.08	0.0001*	8.695
	Follow-up test	6.72 \pm 3.12	2-13			

* $p < .016$ (Bonferroni correction has been applied)

Examining Table 10, it was observed that there were statistically significant differences between the pretest and posttest average scores of the children in the experimental and control groups in the “Cooperation ($U = -5.15$, $p < .05$), Collaboration ($U = -5.16$, $p < .05$), and Sharing ($U = -5.7$, $p < .05$)” subdimensions and as a whole ($t = 26.08$, $p < .05$).

When the effect sizes of the comparisons with a p value below the significance level are evaluated, it is seen that their effect sizes are large (Table 10).

Discussion

Drama contributes to children’s communication skills, entrepreneurial behaviors, group adaptation, self-control, and especially the development of collaboration, cooperation, and sharing behaviors. Additionally, drama strengthens the interaction between children by increasing the frequency of their positive behaviors. In this study, it is observed that the pre- and post-application change in the interaction skills and collaboration, cooperation, and sharing behaviors of children in the experimental group is higher compared to that of the children in the control group. The similar scores of the posttest and follow-up test demonstrate that HUDEP is a program that is effective in developing the collaboration, cooperation, and sharing behaviors and interaction skills of children and that continues this effect during the monitoring process.

The development of positive social behaviors, enabling children to have positive relationships with their peers from the preschool period, allows them to adopt positive social behaviors and become self-confident and sensitive individuals (Şahin & Karaaslan, 2006). In order for children’s social skills to develop, the methods they use in interaction with each other should be used (Şenol, 2019). In addition to the appropriate method, it is important to present them with educational programs that are systematically prepared (Elias, 2006) so that children can internalize social skills and social interaction (Frydman, 2016). It is stated that the drama method is effective in the development of these positive social and interaction skills of children (Aksoy, 2019). For these reasons, this study investigated the effectiveness of the education program prepared with the drama method.

It is seen that there are studies supporting the use of drama method in developing the interaction skills, collaboration, cooperation, and sharing behaviors of preschool children. The drama method strengthens the interaction and social skills among children, since it involves the processes of improvisation, role playing, dramatic editing processes, and working as a group (Lumandan, 2018; Peter, 2000; Schellenberg, Corrigan, Dys, & Malti, 2015). Studies have shown that drama strengthens the communication skills of typically developing children (Muhamad & Luen, 2017; Sevgen, 2016) and social interaction skills (Yassa, 1999). In addition, it is stated that drama improves children's social skills and their skills of establishing and maintaining relationships with others (Gültekin, 2014). When studies conducted with children with atypical development were examined, it was stated that children with intellectual disabilities improved their social skills (Akdenizli, 2016) and strengthened the communication between children with mental disabilities attending primary school and their typically developing peers (Miller et al., 1993).

It was observed that the drama education program applied to the experimental group increased children's social interaction skills and their collaboration, cooperation, and sharing behaviors. This result shows that the drama education program strengthens the interaction of children with special needs and who are typically developing in the inclusion environment and increases their collaboration, cooperation, and sharing behaviors toward each other. Drama is a method in which interpersonal relationships come to the fore, actively using all our senses and bodies. With this aspect, it is stated that drama improves children's interaction skills, social skills (Lumandan, 2018), and communication skills (Batdı & Elaldı, 2020). When a dramatic fiction is created to develop children's skills such as social skills, empathy, tolerance, and interaction in drama, children have the opportunity to apply these skills in a drama environment. In this way, it is emphasized that the skills gained by doing and living in a planned way will develop more effectively and permanently (Korošec & Zorec, 2020). In a meta-analysis, it was concluded that the drama method was effective on the holistic development of children (Ulubey, 2018). In addition, in studies conducted, drama has been developed in terms of prosocial (Şenol, 2019) and behaviors such as collaboration, cooperation, and self-esteem (Celume, Besançon, & Zenasni, 2019; Celume, Goldstein, Besançon, & Zenasni, 2020; Snape, Vettraino, Lowson, & McDuff, 2011). Lorenzetti and Kruger (2020) concluded in their study with preschool children that drama education is effective in gaining self-regulation skills and behavioral control, which affect their social and interaction skills. In some studies, it is stated that drama has an effect on children's social competencies and social emotional development (Fung & Cheng, 2017; Goldstein & Lerner, 2018).

When studies with children with special needs are examined, it is seen that there are similar research results. The implementation of the drama education program for children with special needs enables children to improve their social skills and social adaptation, decrease negative behaviors, and communicate with teachers and friends (Liu, 2020). It is stated that robot-based game-drama intervention applied to children with autism contributes to children's communication skills (So et al., 2019). Studies have shown that the drama education program applied to children with intellectual disability (Kaya, 2011) and emotional behavior disorder (Jackson & Bynum, 1997) is effective for children to acquire social skills. The use of drama in the classroom creates an opportunity for typically developing children to interact socially with children with special needs and improve their social skills (Kilinc et al., 2017). Farrand and Deeg (2020) state that children's dramatic situation is enacted through dramatic questioning, and an environment of interaction occurs in the classroom, improving children's social competence. The results of this research are considered to support the findings obtained from the present study.

In this study, it was seen that HUDEP developed social interaction, collaboration, cooperation, and sharing behaviors between children with special needs and typically developing children. HUDEP was carried out in small group activities (where the class was divided into two or three at the same time) and large group (the whole class participated) activities. By ensuring that children take part in groups with different friends, they interact with different friends each time. In addition, children have been guided and encouraged to collaborate, cooperate, and share so that they can resolve the social situations in HUDEP. For all these reasons, it is thought that HUDEP is effective on social interaction and collaboration, cooperation, and sharing behaviors.

The children in the control group continued to participate in the daily education flows in their classrooms and were not included in any program for social interaction and social skills. It is observed that there is little improvement in social skills and social interaction skills of children in the control group. Similarly, when the changes in the control groups of the studies using the drama method are examined, as well as the social emotional development of children (Ceylan & Ömeroğlu, 2012; Gültekin, 2014; Güner, 2008), self-regulation skills (Kiyaker, 2017), social skills (Freeman, Sullivan, & Fulton, 2003), cooperation, cooperation, sharing, and empathy values (Sözkesen, 2015), and prosocial behaviors collaboration (Şenol, 2019), it is stated that there is a low level of development. It is stated that the reasons for the low level of development stem from children not participating in the drama education program, their natural maturation processes, and the preschool education they received. In addition, in his study, Sevgen (2016) stated that there was no change in communication skills of children in the control group because they did not have the opportunity to solve the situations in the drama activities by experiencing and interacting. As a result of the study conducted by Akdenizli (2016), children in the control group were not given education by living in their schools, and methods were not used by which children could experience what they learned. Therefore, it was concluded that there was no improvement in social life skills of children in the control group. These studies are similar to our study in that there was a low level of change in interaction skills and social skills from the control group. It is thought that there is an increase due to the natural maturation processes of the children in the control group, the education they receive from their families, their constant communication with their friends in the classroom, and the gains they have gained from the preschool education program.

Conclusion

This study has revealed original results showing that HUDEP, carried out in kindergartens where inclusive education is applied, increases children's collaboration, cooperation, and sharing behaviors, social interaction skills (Anme et al., 2014), and social development (Hunt & Goetz, 1997; Lindsay, 2007). However, when we look at the practices in our country, it can be said that social interaction, collaboration, cooperation, and sharing behaviors develop at a low level among typically developing children and children with special needs. The collaboration, cooperation, and sharing behaviors of children in inclusive classes play an important role in interacting with each other and in peer relationships. These behaviors are thought to have an impact on the social interaction, social acceptance, and social adaptation of typically developing children and children with special needs. Using drama method, which is one of the effective methods in the development of social interaction and social skills, will facilitate the adoption and internalization of positive behaviors. Therefore, it can be said that the results obtained from the study are important.

Limitations and Suggestions

The study is limited to two kindergartens, one with mild intellectual disability and the other with normal development, 60-66-month-old children who were applied mainstreaming. The results of the study and the education program prepared cannot be generalized to all disability groups, since the intervention was carried out in two selected classes and was implemented only in classes where children with mild intellectual disabilities were integrated. Therefore, the implementation of HUDEP in kindergartens where children with different disabilities are integrated may be effective in increasing its generalizability.

The effect of the drama education program of HUDEP on children's interaction and social skills was examined. Since development progresses as a whole, it may have positively affected other developmental areas of the children. In this direction, the effect of HUDEP on other developmental areas of children can be evaluated.

Another limitation of the study is that application reliability is not included. In order to provide evidence that HUDEP is applied effectively by researchers, application reliability can be calculated in future HUDEP applications.

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