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# Promoting Friendship Development in Inclusive Early Childhood Classrooms: A Literature Review

## Abstract

*The purpose of this literature review was to describe research findings related to how teachers could support friendships in inclusive early childhood classrooms, with particular interests in friendship development for young children with disabilities. This literature review was conducted to examine the following two questions: (a) How are friendships between young children with and without disabilities defined and measured? and (b) What teaching strategies and intervention programs does research recommend to promote friendships between young children with and without disabilities? The following criteria were used to determine the inclusion of articles: studies included teachers, were conducted in inclusive early childhood classrooms in the United States, had measures for friendships, and were published in peer-reviewed journals between 1990 to 2018. A total of eight studies were identified. The results of this review demonstrated that across all studies there were several common characteristics (e.g. mutual liking, spending time together) in defining young children's friendships. The studies reviewed also included various methods (e.g., surveys, interviews, observations) to measure friendships and suggested effective strategies and intervention programs that teachers could use to support friendship development. However, results also showed that teachers did not readily use the evidence-based practices. Based on the results, implications for future research and practices are discussed.*

*Keywords: preschool, friendship, inclusive classrooms, disabilities or developmental delays*

## Introduction

Social relationships are natural and sustaining parts of human interactions. Beginning at birth, infants experience emotions and social relations that are continually evolving (Nugent, Petrauskas, & Brazleton, 2009). During the first three years of life, a period known for rapid brain development, children are primed to absorb and utilize their experiences to develop social and emotional skills (Denham, Ferrier, Howarth, Herndon,

& Bassett, 2016; Herndon, Bailey, Shewark, Denham, & Bassett, 2013). The early childhood period serves as a transition from caregivers' social model to an environment's social model (e.g., peers in a classroom). These social experiences provide children with opportunities to develop their social-emotional skills beyond the interactions with their caregivers by including others, such as teachers and peers (Ladd, Herald, & Andrews, 2006).

Children's social relationships during

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the early childhood period are vital to the development of their social lives in the classroom, the community, and within their own lives. Research has established that there is significant economic and social value of developing healthy relationships during early childhood years (Domitrovich, Durlak, Staley, & Weissberg, 2017). For example, through healthy peer relationships, young children can have positive attitudes about school, succeed in their learning, and develop self-esteem (Denham, 2006). In order to develop healthy and meaningful peer relationships, children are expected to have appropriate social skills such as taking turns, sharing, giving and receiving affection, and participating in shared imaginative play (Stanton-Chapman & Brown, 2015). Thus, an early childhood classroom can be a place for young children to develop their social skills by learning how to recognize and manage their emotions, form positive and healthy relationships, and build decision-making skills (Weissberg, Goren, Domitrovich, & Dusenbury, 2012). The development of social and emotional skills is also vital to a child's ability to participate in play, which is essential to social interactions during early childhood years (Stanton-Chapman & Brown, 2015). For example, young children who participate in imaginary and reciprocal play begin making a significant shift from parallel play to cooperative play. These cooperative play interactions lay the foundation of engaging in meaningful social interactions, which evolve in to forming positive peer relationships and friendships with their peers (Ladd et al., 2006).

#### *Friendship Development for Children with Disabilities*

Although social relationships look natural and are part of human interactions, children with disabilities often have different and smaller social networks than typically developing children (Brown & Bergen, 2002). Also, children with disabilities may not have the same levels of social skills as their peers, which would affect their abilities to form peer relationships and friendships. Furthermore, children with disabilities are at risk for social isolation and they may engage in challenging behaviors due to their limited communication and social skills

(Dietrich, 2005). In fact, several researchers showed that children with disabilities were more likely to be rejected or ignored and have fewer reciprocal relationships with peers, as compared to their typically developing classmates (Ferreira, Aguiar, Correia, Fialho, & Pimentel, 2017; Odom, Zercher, Li, Marquart, Sandal & Brown, 2006). Ultimately, the exclusion and lack of peer interactions for children with disabilities were related to their social adjustment problems (Richardson & Schwartz, 2004) and low self-esteem (Han & Kemple, 2006).

However, as more children with disabilities have been included in regular classroom settings, it is critical to support social emotional development for all children, including children with disabilities in inclusive classroom settings by providing them with access and opportunities to participate in classroom activities through positive peer interactions (Frea, Craig-Unkefer, Odom, & Johnson, 1999; National Association for the Education of Young Children (NAEYC)/Division for Early Childhood (DEC), 2009). The joint statement on inclusion published by the leading organizations in early childhood and early childhood special education (NAEYC/DEC, 2009) addresses the need for further operational and common understanding for early childhood inclusion and includes friendship as a desired outcome of inclusive classrooms. Furthermore, the Policy Statement on Inclusion developed by U.S. Department of Health and Human Services and Department of Education (2015) stresses that the early childhood is a critical period for both children with and without disabilities to lay the foundation for social skills to be used across the lifespan.

#### *Teacher Support for Friendship Development of Young Children with Disabilities*

Given the importance and needs for promoting positive peer relationships and friendships of young children, especially children with disabilities, researchers have suggested intervention programs and effective strategies (DEC, 2014). Many of those intervention programs and strategies involve *teachers*. A teacher plays significant roles in a classroom, especially during the early childhood period to organize and construct meaningful social experiences for children (Sazak Pinar, & Sucuoglu, 2013). For example, teachers can provide a social model for all children with and without disa-

bilities by socializing children through reciprocal interactions, modeling how to express themselves emotionally, and illustrating different social roles in the classroom (Denham, 2006).

Over the past thirty years, how teachers can effectively support social relationships between children with and without disabilities in inclusive classrooms has been an important research topic (Barton & Smith, 2015; Brown, Odom, & Conroy, 2001). While there has been an emphasis on teacher training to foster meaningful participation of children with disabilities in the general education curriculum (Shippen, Crites, & Houchins, 2005), there is limited information on how teachers can support friendship development between young children with and without disabilities in early childhood classrooms. Several researchers have suggested that young children with disabilities could benefit from friendship development in their classrooms (Arda & Ocak, 2012; Pickens, 2009). Positive peer relationships such as friendships with peers with disabilities are also a benefit that typically developing children can obtain from inclusive classrooms (NAEYC/DEC, 2009). Therefore, it is vital to understand how teachers can support children with disabilities to develop friendships in inclusive early childhood classrooms. The purpose of this literature review is to describe what we know about *friendship development* for young children with disabilities in inclusive early childhood classrooms and how *teachers* can support young children's friendship development. The research questions guiding the literature review are: (a) How are friendships between young children with and without disabilities defined and measured? and (b) What teaching strategies and intervention programs does research recommend to promote friendships between young children with and without disabilities?

## Method

### *Literature Search*

Two online databases, Educational Research Information Center (ERIC) and PubMed were used to search articles. The first parameter set was the year of publication from the years 1990-2018, which corresponds to when the United States Congress passed the Individual with Disability Education Act (1990). Additional limits were placed that research studies must be pub-

lished in peer-reviewed journals and written in English. The second parameter was to select research studies that included either early childhood teachers or children aged from two and nine-months old to five-years-old. The search keywords were chosen from the databases' thesaurus and from keywords found in research studies selected for the introduction in the same field. The "explode" function was used to increase the search results to enable broaden the search to include specific keywords, but also include all of the keywords chosen. The keyword, "friendship" was used in combination of other words related to the topic of the current review paper (e.g. inclusion, disabilities or developmental delays, preschool children or early childhood). This electronic literature search yielded 152 articles.

### *Criteria for Inclusion*

The following criteria was used to determine the inclusion of research articles: (a) each study needed to include teachers (e.g., lead teacher, assistant teacher, special educational resource teacher) and children who were between 2.9 and 5 years-old and were enrolled in an early childhood class, thus kindergarten classes were not included; (b) the early childhood classroom environment must be inclusive and include both children with and without disabilities; (c) studies must include data with explicit measures of friendship that are either qualitative data (e.g., observations, interviews) or quantitative data (e.g., observations, questionnaires); and (d) studies must be conducted and published in peer-reviewed journal in the United States. Also, the first author hand selected additional studies by reviewing the reference lists of selected articles that met all of the inclusion criteria. Additional articles were also selected from recommendations, "See more like this one" from the databases (i.e., ERIC and PubMed) and citation software management software (i.e., Mendeley) and from the websites of early childhood journals, (i.e., Early Childhood Research Quarterly, Journal of Early Intervention, Topics in Early Childhood Special Education).

## Results

This literature review search found a total of eight studies that met all of the inclusion criteria. The main purpose of the eight stud-

ies was to describe friendships of children with disabilities and identify the teaching strategies or interventions used to promote friendships in inclusive early childhood classrooms. All of the eight studies included in this literature review used *teachers* as the primary source to identify or facilitate friendships in their classroom. Three studies included teachers in childcare settings (Buysse, 1993; Buysse et al., 2002; 2003), whereas five studies were conducted with teachers in preschool classrooms (Chang, Shih, & Kasari, 2016; Dietrich, 2005; Frea et al., 1999; Hollingsworth & Buysse, 2009; Odom et al., 2006). See Table 1 for a summary of the purpose, participants, and friendship measures of the eight studies included in the current literature review.

#### *Friendship Definitions*

Results showed that there was not one definition of friendships for children with disabilities in inclusive early childhood classrooms. The definitions of friendships used in the studies reviewed included sev-

eral common characteristics of friendships (Dietrich, 2005; Hollingsworth & Buysse, 2009) and dynamics of friendships (Buysse, 1993; Chang et al., 2016; Odom et al., 2006). Across all eight studies the major common characteristics of friendships included a desire to be with another child (Chang et al., 2016; Dietrich, 2005; Hollingsworth & Buysse, 2009; Odom et al., 2006) and mutual regard for each other (Hollingsworth & Buysse, 2009, Odom et al., 2006). Dietrich (2005) also defined friendships based on mutual liking and spending time together: (a) being nice to one another (e.g. sharing materials and space, taking turns, providing assistance to their friends as needed, providing comfort, playing together, and demonstrating a lack of aggression with each other), (b) showing affection to each other (e.g. hugging, holding hands), (c) liking one another (e.g. talking about friends), (d) choosing to spend time together (e.g., seeking each other out), and playing and having fun together (e.g., laughing, smiling).

**Table 1.**  
*Summary of Reviewed Studies*

<b>Authors/Year</b>	<b>Purpose</b>	<b>Participants</b>	<b>Measures</b>	<b>Title of Survey</b>
Buysse (1993)	Examined friendships between CWD and TDC in community-based childcare settings	58 CWD 0 TDC 48 Teachers	Survey Interview	<i>Early Childhood Friendship Survey</i>
Buysse, Goldman and Skinner (2002)	Examined the effects of the types of early childhood settings on friendship formation of CWD and TPC	120 CWD 213 TDC 25 Teachers	Survey Interview	<i>Teacher Ratings of Children's Social Development The Playmates and Friends Questionnaire for Teachers</i>
Buysse, Goldman and Skinner (2003)	Explored how teachers' social beliefs and practices in inclusive classrooms supported peer-selected and established friendships between CWD and TDC	120 CWD 213 TDC 25 Teachers	Survey	<i>The Playmates and Friends Questionnaire for Teachers</i>
Chang et al (2016)	Examined friendships in preschool classrooms for children with ASD	31 CWD 0 TDC 25 Teachers	Survey Interview Observation	<i>Friendship Questionnaire The Early Social-Communication Scale</i>
Dietrich (2005)	Focused on the dynamics of friendships and what contextual variables influence friendships between CWD and TDC	8 CWD 27 TDC 2 Teachers	Observation Interview	
Frea et al (1999)	Compared relative treatments effects of group friendship activities and structured play activities on social interactions for two preschoolers with peer relationship difficulties	2 Focal CWD 6 CWD 32 TDC 5 Teachers	Observation	
Hollingsworth and Buysse (2009)	Explored how teachers' social beliefs and practices were related to supporting established preschool friendships between CWD and TDC	12 CWD 12 TDC 12 Teachers	Interview	
Odom et al., (2006)	Examined friendships, social acceptance, and rejection of young children with disabilities	5 Focal CWD 80 CWD TDC & Teachers from 37 classes	Survey Observation Assessment	<i>Teacher and Parent Friendship Questionnaire Sociometric Peer Rating Assessment</i>

Note: CWD: Children with disabilities; TDC: Typically developing children, ASD: Autism Spectrum Disorders

The dynamics of friendship included the social nature and interactions between children with disabilities and their classmates (Buysse, 1993; Chang et al., 2016). These friendship dynamics were described based on direct observations of peer interactions between children with and without disabilities (e.g., how much time they spent together for play, how often and who they played with) and through semi-structured interviews with the children's teachers. For example, Buysse (1993) categorized friendships into four domains: Mutual, Type I unilateral, Type II unilateral, and Non-existent friendship. Mutual friendship was defined as a reciprocal relationship, whereas unilateral categories were one-way social interactions. Type I unilateral friendships occurred when the child initiated consistent social interactions with another child and Type II unilateral was when the child was the recipient of a friendship but did not reciprocate back. Chang and colleagues (2016) also examined the dynamics of friendship for children with autism and how they interacted with typically developing children. Three criteria were defined for friendships that included (a) at least 50% of a target child's initiations were responded by a peer, (b) at least one social instance of joint engagement or games occurred during the interaction, and (c) at least one positive affective exchange with a peer occurred.

#### *Friendships for Children with Disabilities*

Several studies reviewed in this paper described friendships for children with disabilities (Buysse, 1993; Buysse et al., 2002; Dietrich, 2005; Odom et al., 2006). Buysse (1993) examined the percentage of children with disabilities in each category of friendship (e.g., mutual, unilateral, no friends). The results showed that 55% of the children with disabilities had mutual friendships, 7% had type I unilateral, 10% had type II unilateral, 2% had both type I and II unilateral, and 26% had no friendships or unilateral relationships. The participating children with mutual friendships had higher social scores, while children with unilateral friendships had the lowest social scores. In a subsequent study, Buysse and colleagues (2002) measured friendships for children with disabilities in different early childhood settings to examine whether the inclusive setting, childcare or a specialized preschool classroom influenced friendship formation. Overall, children with disabilities were found to

have fewer friendships compared to typically developing children. Also, in childcare settings, children without disabilities were found to have similar number of reported friends as the children with disabilities.

Additionally, Dietrich (2005) found that the friendships for children with disabilities changed in dynamics across time and were influenced by similarity in play styles, opportunity to engage in similar activities, similar knowledge and interests, proximity, and parental factors. For example, these friends were able to meet each other's social needs and have fun together while playing. In addition, these friendships naturally developed without a "prescribed intervention plan (Dietrich, 2005, pg. 213)" in an inclusive classroom. She also noted that friendship characteristics for children with disabilities were also similar for what was commonly seen between two typically developing preschool-aged children.

Odom and colleagues (2006) showed that the participating children with disabilities who had mutual friendships were described as having higher social responsivity than children with unilateral friendships. In addition, children with disabilities who had mutual friends had lower scores on teacher-rated negative behaviors that may interfere with friendship formations. These negative social behaviors included behaviors (e.g., humming, pacing, crying, acting shy and withdrawn, acting aggressive and impulsive) that were disruptive to social interactions. Odom and colleagues also identified friendships to measure social acceptance of children with disabilities in inclusive classrooms. In the study, only 22 of 80 (28%) of the children with disabilities were marked as socially accepted and the 22 children with disabilities had at least one mutual friendship identified by both a teacher and a parent. The children with disabilities who had close friendships also had more reciprocal peer relationships than children with disabilities who were rejected by their peers. Children with disabilities were also found to have fewer friends, less playmates and slower social development scores in comparison to typically developing children. Also, children with disabilities had a higher probability of having a friend with a disability than their peers. These results are consistent with other studies reviewed. For example, Chang and colleagues (2016) showed that only 20% of children with autism had friendships and these children

were more jointly engaged with peers during play, compared to other children with autism who did not have friends.

#### *Friendship Measures*

A variety of methods were used to identify and measure friendships for children with disabilities. The researchers in the studies reviewed used friendship surveys, *Sociometric* peer ratings, semi-structured interviews, and direct observations. See Table 1 for friendship measures used in the studies reviewed.

#### *Surveys*

Five of the eight studies used surveys to identify friendships of children with disabilities. Two research teams (Buysse, 1993; Odom et al., 2006) used the *Teacher and Parent Friendship Questionnaire* revised from the *Early Childhood Friendship Survey* (Buysse, 1991) to identify friendships of children with disabilities by asking parents and teachers to complete the survey. Subsequently Buysse, Goldman, and Skinner (2002, 2003) used the *Playmates and Friends Questionnaire for Teachers (TPFQT)* developed by Goldman, Buysse and Carr (1997) to document the numbers of and nature of children's relationships with peers in early childhood settings. The researchers asked lead teachers to complete the *TPFQT* including questions about common playmates and special friends, and a teacher's roles in friendship formation for specific dyads. Chang and researchers (2016) had both parents and teachers complete a *Friendship Questionnaire* adapted from *The Playmates and Friends Questionnaire for Teachers (TPFQT)*. These results showed that all these friendship surveys were stemmed from the *Early Childhood Friendship Survey* (Buysee, 1991). Although Buysse, Goldman and Skinner (2002) provided evidence for the construct and concurrent validity of the *Teacher and Parent Friends Questionnaire* for identifying friendships by demonstrating that the survey significantly discriminates between children with and without disabilities and it is significantly related to teacher ratings of children's social competence, no specific psychometric data for these surveys were reported.

In addition to the surveys to identify children's friendships, two research teams used teacher rating scales to assess children's social and communication skills

(Buysse et al., 2002; Chang et al., 2016). For example, Buysse and colleagues (2002) asked lead teachers to complete the *Teacher Ratings of Children's Social Development* (Profilet & Ladd, 1994) for their students with and without disabilities to identify children's social competence (e.g., prosocial skills, sociability, social initiative, making and keeping friends, and acceptance in peer group) with a rating scale of one to seven. The Chronbach Alpha for this scale was 0.98 indicating high internal consistency. Additionally, Chang and colleagues (2016) asked teachers to complete the *Early Social-Communication Scales* (Mundy, Sigman, & Ungerer, 1986) to measure joint attention and behavior regulation skills of children with autism during social interactions. The reliability intra-class coefficient reported between two independent coders was 0.91 and ranged 0.87 to 0.98.

While most of the friendship surveys were completed by teachers, Odom and colleagues (2006) used a *Sociometric Peer Ratings* with typically developing children. The researchers asked each typically developing child to rate their peers with disabilities by responding to the question, how much they "like" to play with those peers with disabilities by sorting photographs of their classmates into three different boxes with emotional faces indicating happy (like to play with XX a lot), neutral (like to play with XX a little), and sad faces (do not like to play with XX at all). The researchers reported that this sociometric peer rating task had stability coefficient of .71 to .79 across a 2- to 3-month period and a concurrent validity with positive and negative peer nominations.

#### *Interviews*

Five of the eight studies conducted interviews with teachers. For example, Dietrich (2005) interviewed teachers twice using open-ended questions. During the first interview, teachers were asked to identify specific friendship pairs and activities the pair liked to do together, and to explain why they thought the children were friends. In the second interview, the teachers were asked the same questions from the first interviews with additional questions relating to how the friendship had changed over time, how their friendships would change, and what benefits the children received from the friendship. Also, four other studies

reviewed in this paper included teacher interviews (Buysse, 1993; Buysse et al., 2002; Chang et al., 2016; Hollingsworth & Buysse, 2009) but the purpose of the interviews was to gather information about what strategies teachers used to facilitate friendships, not to measure children's friendships. For example, the four research teams asked teachers about how they taught social skills in their classrooms and supported children's friendships.

#### *Direct observations*

Four of the eight studies reviewed included direct observations to measure friendships (Chang et al., 2016; Dietrich, 2005; Frea et al., 1999; Odom et al., 2006). Frea and colleagues (1999) completed quantitative and qualitative observations to record frequency and duration of positive social interactions between the focal children with disabilities and their peers. To observe "more qualitative, or less discrete, features of children's interactions" (Frea et al., 1999, Pg. 233-234), the researchers used the *Observer Impression Scale (OIS)* (Odom & McConnell, 1991), an assessment tool to measure quality of peer interactions by documenting the focal child's behavior in terms of social performance and social impact upon peers (e.g., cooperation, turn-taking, affect sharing) through a 5-point Likert scale. Each observation session using the *OIS* focused on a child in one of the classroom activities including centers, groups, or during free play period. Dietrich (2005) also conducted naturalistic observations of six naturally occurring friendship dyads in two inclusive preschool classrooms. Children's behaviors were observed in terms of whether they were enjoying each other's company, laughing and having fun, and seeking each other out across activities and at various times during the day.

Odom and colleagues (2006) conducted observations of children's social interaction with their peers using the *Code for Active Student Participation and Engagement – Revised (CASPER-II)* (Brown, Favazza, & Odom, 1995). The *CASPER-II* was developed to record children's behaviors and classroom ecology including positive social behaviors to peers (e.g., talking, greeting, sharing, touching, calling a name to another child) and negative behaviors to peers (e.g., hitting, kicking, biting, negative remarks,

crying to the focal child) every 30 seconds for six 30-minute observation sessions. Chang and colleagues (2016) observed the interactions of children with autism with their peers (e.g., engagement states, child initiations, and adult strategies that were used to engage the child) and teachers during free play in their inclusive classrooms. The researchers used a behavioral coding system during two 15-minute observations to record children's interactions with their peers or teachers over a one-month period. A 15-minute session was broken into 50 second time intervals. The observer recorded information about social skills for each target child (e.g., engagement states and child initiations) during specific interventions designed to improve children's communication skills. In addition, observers documented teacher supports (e.g., gesture or language for joint attention, environmental arrangement, prompting target child, inviting other children to play with target child).

#### *Teaching Strategies or Interventions for Friendships Development*

Six of the eight studies reviewed suggested teaching strategies to promote peer relationships and friendships between children with and without disabilities (Buysse, 1993; Buysse et al., 2003; Chang et al., 2016; Dietrich, 2005; Frea et al., 1999; Hollingsworth & Buysse, 2009). The participating preschool teachers in Hollingsworth and Buysse (2009) described their practice of supporting friendships by letting children choose their own friends and talking about all classmates as being friends. The teachers also described providing opportunities for dyadic interactions through intentional strategies such as pairing specific children together by assigning them to be buddies, placing children in a play area where they were less likely to be in conflict over materials, sending children to play areas where only two children were allowed to participate in. The teachers also stated that they provided children with ideas about how or what to play with by suggesting specific activities, redirecting children from inappropriate activities, helping them resolve conflicts, and interpreting children with special needs for their peers.

Buysse (1993) also identified teaching strategies that could promote friendships by giving choices to children with disabilities so they could play near a friend or to sit by a

friend during activities such as circle time. Although 44% of the participating teachers mentioned adult involvement, those teachers also reported promoting friendships through proximity by pairing children together during activities and encouraging them to initiate play with peers. However, the teachers who did not report adult involvement as a strategy also indicated that their support was not necessary because children, “formed friendships on their own” (Buysse, 1993, pg. 389). Several research studies reviewed also suggested the idea, encouraging teachers to leave friendship choices to children (Chang et al., 2016; Dietrich, 2005; Frea et al., 2009). Additionally, Dietrich (2005) found that not all teachers implemented an activity that was intentionally planned such as using a student’s favorite activity to facilitate friendships and some teachers indicated that they did not intentionally use particular strategies to promote and support friendships for children with disabilities.

Buysse and her colleagues (2003) asked teachers about what teaching strategies they used to support individual friendships in inclusive early childhood classrooms. Using the *Playmates and Friends Questionnaire for Teachers* (Goldman, Buysse, & Carr, 1997) as a tool for a semi-structured interview, the teachers were asked to identify strategies they used to support individual friendships including: comment on a friend’s play, invite two children to play together, provide special materials or activities, arrange for a child to be close to his friend, speak or interpret for a child, and provide suggestions to solve problems or resolve conflicts. The most commonly reported strategies were providing sufficient time for free choice, allowing children to form their own friendships, and commenting on children’s play with friends.

While most of the studies above described what teaching strategies were used for friendship development through teacher interviews, Frea and colleagues (1999) examined the effectiveness of an intervention called “*Group Friendship Activities (GFA)*” to promote peer relationships and friendships in preschool classroom settings. The *GFA* included three predetermined songs or games that were introduced to the group by a trained activity leader, and included social behaviors (e.g., hugging, giving high fives, tickling, and complimenting) during typical preschool classroom activi-

ties. The predetermined songs or games were sung back to back, while the leader focused on activities by involving social interactions with the child who received social supports. The group leader would provide children with prompts to participate in the activities through interacting with other peers. The study revealed that through the *GFA* there was an increase in frequency and duration of positive peer interactions for children with disabilities. However, the participating teachers noted a need to tailor the selection of intervention activities that would be relevant to unique characteristics, skills, and interests of an individual student with a disability. Also, it was recommended that teachers should continually monitor children’s behaviors to evaluate whether the interventions are effective over time.

Additionally, Chang and colleagues (2016) focused on friendships of children with autism. They observed the frequency of adult strategies in promoting friendships for children with autism. The participating children with autism were observed during social interactions with their peers in inclusive preschool classrooms. The teachers were asked about what strategies they used to facilitate friendships between children with and without disabilities. The two most commonly reported teaching strategies were behavioral regulation (e.g., managing inappropriate behavior or routine-based activity like cleaning up) and environmental arrangement (e.g., arranging children in the classroom to prevent problem behavior).

## Discussion

The current literature review examined how friendships were defined and measured for young children with disabilities in inclusive early childhood classrooms and what teaching strategies and intervention programs have been suggested to promote friendships for children with disabilities. Although there was not a single definition of friendship between children with and without disabilities, the definitions described by the researchers in the all eight studies reviewed shared some common characteristics of friendships (e.g., mutual liking, being nice to each other, and spending time together). The varying definitions of friendship across the studies are similar to the friendships of typically developing children and consistent with the definitions of friendships in previ-



ous research studies (Herndon et al., 2013; Meyer & Ostrosky, 2014).

The current literature review also demonstrates that researchers have used various measures (e.g., surveys, interviews, direct observations) to identify and assess friendships between children with and without disabilities. However, most of the measures in the reviewed studies relied on reports by teachers and/or parents. Of the eight studies reviewed, one study directly asked children about their friends (Odom et al., 2006) and four studies used direct observations of peer interactions (Chang et al., 2016; Dietrich, 2005; Frea et al., 1999; Odom et al., 2006) to assess friendships. Also, most of the friendship surveys were developed based on the *Early Childhood Friendship survey* (Buysse, 1991) more than 10 years ago and no specific psychometric data for these surveys were reported. Thus, future research needs to examine the validity and reliability of the surveys and to develop more developmentally appropriate measures to assess friendship characteristics of young children with disabilities.

Additionally, six of the eight studies reviewed described how teachers could promote friendship development between children with and without disabilities. However, one study examined a specific intervention program for friendship development (Frea et al., 1999) and other five studies described general ideas and strategies that teachers used in their typical classroom settings through teacher interviews. Only one study (Chang et al., 2016) reported teachers' actual behaviors (e.g., involvement in children's play interactions) through direct observations. Also, some of the teachers reported that they did not implement an intentionally planned activity for friendship development (Dietrich, 2005). Thus, investigating which strategies would be more effective to support peer relationships and friendships (Yang & Fusili, 2012) would be necessary in future research. Although friendship development for young children with disabilities has been an important research topic, surprisingly there have been limited research studies on how *teachers* could facilitate friendships between children with and without disabilities in their early childhood classrooms. Thus, additional research is needed to examine the effectiveness of the strategies and intervention programs described in this literature review paper.

Research clearly shows that positive peer relationship is vital to children's later adjustment and children who have friends have positive attitudes about school, succeed in their academic learning, and develop self-esteem (Denham, 2006). Thus, it is essential that teachers provide positive and prosocial experiences to support children's positive peer relationships and friendship development (Buysse, 1993). Through teacher support, children with disabilities can increase their social engagement and form stronger peer relationships, including friendships with their peers (Chang et al., 2016; Frea et al., 1999; Stanton-Chapman & Brown, 2015). With this in mind, it is necessary that teachers and researchers establish a better understanding of friendship development in early childhood settings, both for children with and without disabilities. If teachers are given more knowledge and training about how to support emerging friendships, children with disabilities could benefit from teacher support to develop meaningful peer relationships. In particular, researchers have suggested that teacher education programs alone could not increase classroom quality in early childhood settings. Early and colleagues (2017) noted that on-going professional development activities is effective to support teachers' interactions with their students. Thus, it is critical that future research address how teacher education programs and professional development program can support teachers to facilitate friendships for children with disabilities in inclusive early childhood classrooms.

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