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Supporting Inclusion Through Peer Support

Elizabeth E. Biggs and Elizabeth Burnett Rossi

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Setting the Stage

Inclusive elementary schools give students with disabilities the opportunity to experience the plentiful benefits of social interactions and relationships with peers, including reciprocal friendships. Meaningful interactions and relationships with peers have crucial roles in promoting development and well-being for all students, including students with disabilities (Bukowski & Sippola, 2005; Rubin et al., 2009). But what exactly is meant by the term peer interaction? Rubin et al. (2015) define it as being dyadic and reciprocal in nature, focusing on the fact that in social interaction, “participants’ actions are interdependent such that each actor’s behavior is both a response to, and stimulus for, the other’s behavior” (p. 331). Learning to navigate these social exchanges is a crucial part of what children learn in school, such that social interactions and relationships with peers should be thought of as an integral part of the informal curriculum (Thompson et al., 2017) and part of the very ‘stuff of school’ itself.

A tremendous amount of study of peer interaction and relationships over decades of research has all led to an important conclusion: when it comes to thinking about what is important for children to learn both in and outside of school, learning to relate well with peers is one of the most important undertakings (Rubin et al., 2015; Shonkoff & Phillips, 2000). For children with and without disabilities, peer interactions support development across a number of different areas, including language and communication, cognitive skills, social skills, and emotional regulation (Rubin et al.). Other positive outcomes include increased personal adjustment, self-esteem, and overall well-being (Berndt, 2002; Bukowski & Sippola, 2005). Social interactions with peers, particularly around shared interests and experiences, also provide fertile soil for the development of friendships, which are best thought of as relationships that are reciprocal in nature, marked by commitment and stability across time, and that serve functions such as mutual companionship, emotional support, and affection (Parker et al., 2006; Rossetti & Keenan, 2018; Webster & Carter, 2007). High-quality friendships are associated with higher achievement and positive attitudes about school, and they have been shown to provide a protective effect against peer rejection and being victimized by peers (Osterman, 2000; Parker et al., 2006). Research has also documented that reciprocal friendships play an important role in promoting belonging, happiness, and well-being for children with and without disabilities (Holder & Coleman, 2009; Williams & Downing, 1998).
This chapter focuses on the ways in which peer support can have a powerful role in improving social, academic, and developmental outcomes for students with severe disabilities, including students with limited verbal speech who use different forms of augmentative and alternative communication (AAC), such as gestures, vocalizations or sounds, signs, picture symbols, or speech-generating devices to communicate. We will first set the stage for thinking about peer support by discussing supports and belonging as being critical dimensions of inclusion, outlining the varied social experiences of students with severe disabilities in schools today, and discussing the negative impact of over-reliance on adult support. Then, we will review existing research on peer support to highlight the power of peers in promoting what it means for students to be truly included in their schools and classrooms. Finally, we will provide practical guidance for how future research and practice can be improved to support effective inclusive education through peer support.

**Supports and Belonging as Critical Dimensions of Inclusion**

Over the last several decades, educational policy and practice changes have increased inclusive placements for students with disabilities, but the picture for students with severe disabilities and more intensive support needs is more complicated. McLeskey et al. (2012) analyzed national placement data between the years 1990 and 2008 and found that educational placements in elementary schools changed substantially during this 18-year period, with more students with disabilities placed in increasingly less restrictive settings. Specifically, elementary-level placement rates in general education settings for 80% or more of the school day rose approximately 60% between the 1990–1991 and the 2007–2008 school year, while placement in pull-out classrooms decreased by 41%, and placement in self-contained classes or separate schools decreased by approximately 27%. Williamson et al. (2020) extended this analysis and found the same general trend, noting, though, that changes in general education placement have slowed considerably since 2007. Even when taking into account this slowing, these general trends demonstrate an expansion of placement in general education settings for students with disabilities. However, this expansion has not included all students with disabilities. For example, both McLeskey et al. and Williamson et al. found that the proportion of students with intellectual disability who were placed in segregated settings such as special schools and classrooms remained high, even with the increases in the proportion of students served in general education settings. Despite the growing body of research indicating that students with severe disabilities can access the general education curriculum and learn both academic and functional skills in general education settings when given appropriate support, students with severe disabilities continue to be disproportionately placed in restrictive and segregated settings (Morningstar et al., 2017).

Thus far, the focus of this section has been about placement and access to general settings. But, placement in general education settings is clearly not the same as inclusion in these settings. What, then, does it mean for students with severe disabilities to be included? Defining inclusion is a difficult task and one that researchers and school leaders have attempted to clarify numerous times over the years (Palmer & Williams-Diehm, 2020; Ryndak et al., 2000). What remains clear even as policies and practices have evolved is that inclusion cannot simply mean the location of services. Further, this means that students with severe disabilities cannot simply leave their separate special education classrooms to “go to inclusion,” as some well-meaning educators might say. Conceptualizations of inclusion that focus on placement alone will always fall short of reaching desired outcomes. Instead, inclusion means that all students—including students with severe disabilities—have access to and make progress in the general education curriculum alongside and with their peers, are valued members of their classroom and school, and receive appropriate supports at both universal (e.g., school, classroom) and individual levels to make these goals possible (Rodriguez et al., 2020; Ryndak et al. 2020; Wehmeyer & Shogren, 2017).
This notion of effective systems of support is important to a conceptualization of inclusion. Within the intellectual disability field, increasing use of strengths- and support-based approaches have led to a growing emphasis on the critical role of supports for students with severe disabilities in schools today (Thompson et al., 2009). Based on social-ecological models of disability, support- and strengths-based approaches emphasize the need to understand the demands of students’ environments and identify and utilize supports that will maximize growth, participation, and flourishing in these different environments, rather than focusing on areas of deficit (Wehmeyer & Shogren, 2017). This way of thinking about students with disabilities recognizes that “all people have support needs” (Shogren et al., 2017, p. 185) while also recognizing that students with severe disabilities will have more intensive support needs related to learning and participating in general education settings than their peers without disabilities. The emphasis of supports can also be seen in the introduction of tiered intervention models, or Multitiered Systems of Supports (MTSS), and school reform that systematically applies integrated and increasingly individualized methods for supporting the learning and well-being of students as needed (Sailor et al., 2018; Shogren et al. 2017). Thinking about supports as being crucial to effective inclusive education also highlights how peers can play a central role in supporting students’ participation and learning. Peer supports can be utilized in ways to help ensure that students with severe disabilities access the general education curriculum and are truly included in their classrooms and schools.

Another important aspect of a strong conceptualization of inclusion is the notion of belonging. Ryndak and her colleagues (2000) analyzed statements from experts who had published about inclusive education for students with severe disabilities, proposing a five-part definition of inclusion that focused on: (a) placement in general education classrooms, (b) shared instruction and learning opportunities, (c) effective supports, (d) belongingness, and (e) effective collaboration and integrated services by educational teams. Ryndak explained belonging as students with severe disabilities being accepted and “being valued, contributing, and equal members of the class and school they would naturally attend” (p. 110). Belongingness, though, is not a need just for students with disabilities, but rather a fundamental psychological need for all people (Mahar et al., 2013; Osterman, 2000). This means that students with and without disabilities need schools and classrooms where true communities are built and sustained—in which students feel committed to one another, cared for and supported, that they each matter to one another and the school and classroom as a whole, and in which they build meaningful personal relationships with one another (Osterman).

Further, children with disabilities themselves have talked about the importance of the notion of belongingness. Foley et al. (2012) conducted focus groups with 20 children with disabilities, including cerebral palsy, autism, Down syndrome, intellectual disability, and visual impairment. When asked about what makes a good life, these children talked about making friends, spending time with friends during shared activities, being a part of the life of the school, and having personally meaningful things to do. The findings from these focus groups highlighted the importance that children themselves place on social relationships and fully participating in different activities and settings, described by one child in the study as being the things that helped her “to feel belonged” (Foley et al., p. 380).

The Social Lives of Students with Severe Disabilities

Although social interactions and relationships with peers are clearly important, the social experiences of elementary-aged students with severe disabilities can vary quite widely within and across schools. Existing research demonstrates that some children with severe disabilities do experience rich social lives at school, including through close, meaningful friendships (Rossetti & Keenan, 2018). For example, Anderson et al. (2011) conducted semi-structured interviews with peers without disabilities about their friendships with children who had cerebral palsy and used speech-generating...
devices to communicate. Although these peers did describe differences in the friendship relative to other relationships (e.g., physical access barriers for their friend, navigating being a friend and providing care), they also described these relationships as being close and offering rewarding companionship. Similarly, Biggs and Snodgrass (2020) interviewed elementary-aged children who were friends with students with severe disabilities who were learning to use aided AAC. The interviews focused on understanding how children experienced different friendships, both with a friend with a disability and another friend without a disability. Children discussed their friendships as being positive and rewarding, regardless of the disability status of the friend they were talking about. Findings also indicated that the nature of how these children talked about the depth of their friendship ranged fairly widely from relationships that were primarily characterized by affinity (e.g., positive perceptions of the friend, having fun, shared interests and characteristics) to relationships that were marked by deeper intimacy (e.g., understanding, trust, commitment). However, this variation seemed to be evident within and across children regardless of the disability status of their friend.

Together, this research highlights that there is potential for all children, including children with severe disabilities, to form close, meaningful, and reciprocal friendships with peers. However, many relationships between children with and without disabilities in schools may fall short of this, looking more like helping relationships than reciprocal friendships (Rossetti & Keenan, 2018). For example, peers without disabilities may wrestle with the tension between being a friend and taking on caring roles, such as helping during transitions or classroom activities (Anderson et al., 2011). Offering support and care is a natural and important part of healthy social relationships for children and adults alike. However, relationships built solely on unilateral support from a peer are not the same as friendships because “friendships include more than help” (Rossetti & Keenan, p. 205). Whether peer relationships have the potential to develop into reciprocal friendships may depend on peers’ attitudes about disability, including the ways that experience, talk about, and make meaning of disability (Anderson et al. 2011; Biggs & Snodgrass, 2020). For example, reciprocal friendships rather than ‘helping’ relationships may require that peers see their classmate with a disability as an individual with unique strengths, interests, and personality, rather than primarily seeing their areas of difference or need (Biggs & Snodgrass).

Given this, an important question to ask is: If there is this potential for strong, reciprocal relationships between students with and without disabilities, are relationships among children with and without disabilities regularly occurring? Despite this potential, the experiences of many students with significant support needs are far less positive, and even social interactions between peers with and without disabilities have been found to be infrequent or even altogether absent in schools today. For example, Chung and Carter (2013) observed elementary and middle school students with disabilities who used various forms of AAC and found that although these students were present in general education classrooms and in proximity to peers, they almost never interacted with peers, and instead interacted almost exclusively with adults such as a paraprofessional. Similarly, Andzik et al. (2016) observed 23 students for over 117 hours of observation, finding that communication occurred primarily with adults and that students had few opportunities to communicate with peers without disabilities. Other research focusing on recess has shown that although this is a time that is ripe for socialization centered around play, students with disabilities such as autism spectrum disorder spend more time alone and less time jointly engaged than their peers (Locke et al., 2016). Finally, children with significant disabilities have been found to have less quality, reciprocal friendships and be on the periphery of social networks in their classroom as compared to peers without disabilities (Kasari et al., 2011; Raghavendra et al., 2012), a challenge that appears to become increasingly complex and prevalent as children move into the later elementary grades (Rotheram-Fuller et al., 2010).

What is clear from this overview of the literature is that although positive interactions and reciprocal relationships between students with and without disabilities may be possible, they are
unlikely to occur without careful planning and support. Therefore, as educators work to support
develop strong, inclusive schools and classrooms, it is important to understand how peer support
might be a pathway for promoting children’s skill development and functioning in different school
environments, as well as to support children’s social flourishing and belonging.

**Over-Reliance on Individually Assigned Paraprofessional Support**

Educational teams often assign paraprofessionals to support students with severe disabilities, believing
that high levels of adult support will promote positive outcomes. In reality, though, over-reliance on
adult support brings a number of unintended negative effects, impeding both social and academic
outcomes (Giangreco et al., 2005). When paraprofessionals are used as the sole or primary support,
this can result in students with disabilities being isolated from peers, interacting less frequently with
general educators, and developing a dependence on the paraprofessional (Carter et al., 2007;
Giangreco et al., 2005). Concern about heavy reliance on paraprofessionals as individually assigned
supports has been increasingly raised for some time (Giangreco et al., 2005, 2012), and yet this
practice continues to persist in schools without any convincing empirical support. Although adults
do have critical roles in supporting students with disabilities in inclusive classrooms and other set-
tings, many other strategies are more effective supports than relying primarily on individually as-
signed paraprofessionals. These other strategies might include technology supports, using
paraprofessionals to provide support to all students with and without disabilities in a classroom
(rather than assigning as individual support), curricular adaptations, and—the focus of this
chapter—peer supports. The over-reliance on paraprofessional support is a call for educators to
identify ways to utilize adult support more effectively to support desired outcomes for students in
inclusive settings.

**The Power of Peer Support**

Thus far, we have highlighted the importance of supports and belonging to defining and enacting
inclusive education, described the varied social experiences of students with severe disabilities in
elementary schools, and highlighted the unintended negative consequences of over-reliance on adult
support. Therefore, it is crucial that education teams look beyond simply where students with severe
disabilities will spend their day to determine the supports needed for students to access and make
progress in the general curriculum at school and to belong to their school and classroom com-
nunities. Positive interactions and relationships with peers are central to effective inclusive edu-
cation, and there is a strong and growing body of evidence on the effectiveness of peer support
interventions to promote the aspects of what it means to be truly included in classrooms and schools.

**What Do We Know Based on Research?**

**Intervention Models involving Peers**

The field has had a longstanding history of involving peers without disabilities in interventions to
improve social and academic outcomes for students with disabilities. Early research in our field
highlighting the unique and powerful place of peers in the lives of children with disabilities dates
back to nearly 50 years ago (see Odom & Strain, 1984 for an early review). There is now abounding
evidence on the utilization and effectiveness of peer-mediated or peer support interventions for
children with disabilities, including children with autism, intellectual disability, and other develop-
mental disabilities (Chang & Locke, 2016; Watkins et al., 2015). Although early applications
tended to be within the context of self-contained classrooms or non-instructional settings, an
increasing focus has been on how peer support can be utilized within general education classrooms and other general education settings (e.g., playgrounds, lunchrooms) to promote both social inclusion and greater access to general education curriculum (Biggs & Carter, 2017). Peer support may be aimed toward a number of different outcomes, such as increasing social interactions and engagement, fostering integration into different school environments, or promoting the development of new skills (e.g., communication, social, academic).

Additionally, ongoing research has led to greater sophistication with how peer support interventions are designed, implemented, and evaluated, including the development of a number of different intervention models. All of these different types of peer support interventions have a shared aim of using intentional, supported opportunities for students with and without disabilities to work together to improve outcomes for children with disabilities, as well as outcomes for peers without disabilities. This intentionality means that peer support interventions are different than simply ensuring students with and without disabilities have indirect contact with one another by being in the same classrooms, passing in the hallway, or eating in the same lunchroom. Instead, peer support interventions involve formal and sustained experiences in which an adult supports peers without disabilities to provide social, academic, communication, or other types of supports to a classmate with a disability (Chan et al., 2009).

Though all peer support interventions share these features in common, intervention models also vary in numerous ways, such as the ways peers and students are grouped together, the roles peers assume, the training peers receive, the location of the intervention, and the roles of adults. For example, peer support arrangements involve equipping and supporting one or more peers to provide ongoing social, communication, and/or academic support to a student with a disability who is in the same general education class as the peers (Biggs et al., 2017; Brock & Huber, 2017). Peer network interventions, on the other hand, involve establishing a cohesive social group with a student with a disability and a small group of peers (generally 2–6), focusing on facilitating opportunities for students to play and interact through shared activities in non-academic contexts (Biggs et al., 2018; Kamps et al., 2015). Given that peer support can take so many forms, it is helpful for educators to have a way to understand the similarities and differences of all of these interventions. In this chapter, we will review research focused on three broad categories of interventions that involve elementary-aged peers without disabilities: (a) class-wide approaches, (b) peer network interventions and recess-based interventions, and (c) peer-mediated instruction and peer support arrangements in classroom settings.

Peer-mediated instruction, peer support arrangements, and peer network interventions all involve matching peers without disabilities with children with disabilities, either to form dyads or groups. However, as evident by their name, class-wide approaches actually involve the majority or entirety of students in a class. Though some types of class-wide approaches may not strictly be a form of peer-mediated intervention, they form an important foundation for positive interactions among children with and without disabilities. Class-wide approaches can help foster positive attitudes about people with disabilities, emphasize strengths-based approaches for thinking about disability, and ensure regular classroom instruction involves supported opportunities for students with and without disabilities to learn from and with one another.

Several different researchers have talked about the importance of classroom-wide approaches as the foundation to a multi-tiered approach to promoting positive interactions and friendships among children with and without disabilities (Brown et al., 2001; Meyer & Ostrosky, 2016). A multi-tiered approach means that educators first employ class-wide interventions before moving on to increasingly more intensive and individualized interventions. More intensive interventions (e.g., peer-mediated instruction, social skills instruction) may be more complex, demand more resources or time, or be less natural for students with disabilities and their peers, and these can build on class-wide approaches that are aimed toward promoting acceptance of classmates with disabilities and arranging opportunities for all children in an inclusive classroom to interact, get to know one another, and
learn from one another. This framework can be quite helpful for educators in making decisions among the many different peer support interventions that are research-based. Further, a multi-tiered approach highlights the benefits—both in terms of effectiveness and acceptability or feasibility—of employing a combination of class-wide and more individualized approaches to peer support when students have more intensive support needs.

Class-wide Approaches

Class-wide approaches themselves also can take many different forms. The list of studies in Table 16.1 highlights a number of different classroom-wide intervention approaches, including affective-focused interventions, class-wide peer tutoring, cooperative learning groups, and strategy-focused classroom interventions. Table 16.1 is not intended to be a comprehensive list of all class-wide peer support interventions, but it is intended to illustrate the breadth of research-based interventions, and the similarities and differences in both peer and adult roles across studies. Affective-focused interventions are designed to nurture positive attitudes about disability and classmates who have disabilities, creating a classroom culture of inclusion, acceptance, and belonging (Brown et al., 2001; Favazza & Odom, 1997). Class-wide peer tutoring and cooperative learning groups—including class-wide peer buddies and structured play groups—focus on arranging the instructional design so that students in the inclusive classroom have supported opportunities to learn from and with one another (Hunt et al., 1994; Piercy et al., 2002). Finally, class-wide approaches can also involve teaching all students in the classroom specific types of supports or strategies to use when interacting with a classmate with a disability (e.g., Cosbey & Johnston, 2006).

Research findings across several decades suggest that class-wide affective interventions can increase peer acceptance of people with disabilities but are by themselves not likely to lead to close friendships among children with and without disabilities (Favazza & Odom, 1997; Meyer & Ostrosky, 2016). For example, Meyer and Ostrosky investigated whether a class-wide disability awareness curriculum would lead to increased friendships for Kindergarten-aged children with disabilities who were enrolled in inclusive classrooms. The primary intervention, called Special Friends, involved educators leading class-wide read-aloud discussions using children’s books about disabilities, facilitating mixed-ability cooperative learning or play groups, and sending home a copy of the book with a reading guide to promote positive conversations about disability at home. The intervention was compared to a Science program that was structured to mirror the components of the Special Friends intervention (i.e., class-wide read-aloud discussions about science, mixed-ability cooperative learning groups about science, supporting science discussions and book reading at home). The Special Friends intervention resulted in an increase in peer acceptance that—though statistically not significant—may have signaled the intervention had a protective factor against worsening peer attitudes toward their classmates with disabilities (Dorsey et al., 2016). However, contrary to the expectations of the researchers, participating in the class-wide affective intervention did not increase the number of close or ‘best’ friendships for students with disabilities, but close friendships did increase for students participating in the Science intervention (Meyer & Ostrosky, 2016).

What might explain these findings? The researchers suggested that the nature of the difference between the cooperative learning and play groups in the two conditions is important to consider. In the Science intervention, the cooperative learning groups were structured with clearly defined goals and activities, while the groups in the Special Friends intervention participated in open-ended play themes (e.g., restaurant-themed play). Without adult facilitation as a part of these groups, the researchers suggested that the children with disabilities in the Special Friends program may not have had play skills to support engagement in extended open play-based interactions. Similarly, peers were not taught to know how to support and scaffold play-based interactions with their classmates with disabilities. These findings suggest that mixed-ability cooperative learning groups may be a powerful
<table>
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<tr>
<th>Article</th>
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<th>Participants</th>
<th>Peer roles</th>
<th>Roles of adults</th>
<th>Outcomes</th>
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<tbody>
<tr>
<td>Cosbey and Johnston</td>
<td>Strategy-focused classroom intervention</td>
<td>3 students with multiple disabilities and their peers (3–6 years)</td>
<td>Respond to their classmate’s use of a single-switch AAC device which was programmed with the phrases “That looks fun. Can I play?”</td>
<td>Set up AAC access, identify preferred activities and toys, train and coach peers to respond to communication attempts, create opportunities for social interaction, prompt AAC use</td>
<td>Increased requests to access play and for students with disabilities and responses from peers</td>
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<tr>
<td>Dugan et al. (1995)</td>
<td>Cooperative learning groups with peer tutoring</td>
<td>2 students with autism and their peers (9–10 years)</td>
<td>Participate in cooperative learning groups that involved reciprocal peer tutoring and a cooperative activity</td>
<td>Establish the cooperative learning groups, teach new material prior to the group, teach about group social skills, monitor and provide feedback to the groups, provide reinforcement to groups</td>
<td>Increased scores on weekly quizzes, academic engagement, and peer interaction for students with autism and peers</td>
</tr>
<tr>
<td>Favazza and Odom (1997)</td>
<td>Affective-focused intervention with play groups</td>
<td>15 students with intellectual disability or multiple disabilities and their peers (5–6 years)</td>
<td>Participate in discussions about books, structured play groups</td>
<td>Lead read-aloud and discussions with books about children with disabilities, set up structured play groups, send home a copy of the book each week with a reading guide for parents</td>
<td>Increased peer acceptance</td>
</tr>
<tr>
<td>Hunt et al. (1994)</td>
<td>Cooperative learning groups</td>
<td>3 students with multiple disabilities (7–9 years)</td>
<td>Participate in cooperative learning groups, provide communication supports to the classmate with a disability</td>
<td>Establish the cooperative learning groups, teach peers about how the student with a disability communicates and how to provide communication supports, provide support to cooperative groups</td>
<td>Increased performance on quizzes for peers without disabilities, acquisition of a targeted communication behavior for the students with disabilities</td>
</tr>
<tr>
<td>Jacques et al. (1998)</td>
<td>Cooperative learning groups</td>
<td>24 students with intellectual disability and their peers (9–11 years)</td>
<td>Participate in cooperative learning groups</td>
<td>Establish cooperative learning groups, adapt social studies texts, provide support to cooperative groups</td>
<td>Increased peer acceptance</td>
</tr>
<tr>
<td>Kamps et al. (1994)</td>
<td>Class-wide peer tutoring</td>
<td>3 students with autism and their peers (8–9 years)</td>
<td>Participate in a reciprocal tutoring arrangement to provide and receive feedback on oral reading and ask and answer questions about the passage</td>
<td>Arrange tutoring pairs, teach students about the tutoring arrangement, monitor students in the tutoring groups, provide reinforcement to dyads</td>
<td>Increased oral reading fluency rates and performance on reading comprehension questions for students with autism and peers; Increased peer interaction</td>
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<tr>
<th>Article</th>
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<tbody>
<tr>
<td>Kamps et al. (1995)</td>
<td>Cooperative learning groups with peer tutoring</td>
<td>3 students with autism and their peers (8–13 years)</td>
<td>Participate in cooperative learning groups that involve reciprocal peer tutoring and a team learning activity</td>
<td>Establish the cooperative learning groups, provide instruction on social skills for cooperative groups, monitor and provide feedback to the group, provide reinforcement to groups</td>
<td>Increased scores on weekly quizzes, academic engagement, and peer interaction for the students with autism and peers</td>
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<tr>
<td>Laushey and Heflin (2000)</td>
<td>Class-wide peer buddies</td>
<td>2 students with autism and their peers (5 years)</td>
<td>Participate in “buddy time” as a part of free play center time, which involved staying with, playing with, and talking with the buddy</td>
<td>Establish the buddy system, lead a brief discussion to teach the buddy system and discuss that all people being alike and different in many ways, rotate buddies each day, provide reinforcement to dyads</td>
<td>Increased social skills performance for the two students with autism</td>
</tr>
<tr>
<td>Meyer and Ostrosky (2016)</td>
<td>Affective-focused intervention and cooperative learning groups</td>
<td>26 students with disabilities and their peers (5–6 years)</td>
<td>Participate in discussions about read-aloud and in cooperative learning groups with classmates</td>
<td>Lead read-aloud and discussions with books about disabilities, facilitate mixed-ability cooperative learning groups, send home a copy of the book with a reading guide for parents</td>
<td>Participating in the class-wide affective intervention did not increase the number of best friendships for students with disabilities; but the intervention with mixed-ability science cooperative learning groups did not increase performance on spelling tests and academic engagement for students with and without disabilities</td>
</tr>
<tr>
<td>Mortweet et al. (1999)</td>
<td>Class-wide peer tutoring</td>
<td>4 children with intellectual disability and their peers (8–10 years)</td>
<td>Participate in a reciprocal tutoring arrangement to practice spelling words while providing and receiving positive and corrective feedback</td>
<td>Arrange tutoring pairs, teach students about the tutoring arrangement, monitor students, provide reinforcement to dyads</td>
<td>Increased peer acceptance and social interaction with peers for the students with disabilities</td>
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<tr>
<td>Piercy et al. (2002)</td>
<td>Cooperative learning groups</td>
<td>6 children with intellectual disability and their peers (6–7 years)</td>
<td>Participate in cooperative learning groups</td>
<td>Establish the cooperative learning groups, teach children to work cooperatively, provide social praise to reinforce collective effort and products</td>
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Note. AAC, augmentative or alternative communication.
way to promote peer acceptance, interaction, and even friendship, but that students may need adults to take a role in clearly defining goals and ensuring equal-status roles for students with and without disabilities in order to benefit socially from these groups.

Other research has focused more specifically on understanding the effects of these types of mixed-ability cooperative learning groups (e.g., 3–7 students with varying skills, including a student with a more severe disability). Strategies within cooperative learning groups may include working together to accomplish a specific task or goal, practicing skills, sharing in reinforcement contingencies that apply to the whole group, and engaging in social interactions (Hunt et al., 1994; Piercy et al., 2002). Although different researchers trace the origins of cooperative learning in inclusive classrooms differently (Slavin, 2011), many trace the theoretical foundation to Allport (1954), who argued that when negative or ambivalent attitudes and behaviors might be expected in heterogeneous groups, positive relations depend on group members having equal status, being in pursuit of a common goal, and having tasks and roles structured so that all group members can (a) make a significant contribution to the group and (b) engage socially to get to know the other members of the group as individuals. This foundational understanding provides helpful insight for educators to know how to use cooperative learning groups to support social and learning outcomes for students with and without severe disabilities in inclusive classrooms.

For example, Piercy et al. (2002) conducted cooperative learning sessions with small groups of 3 to 4 students, which each included a student with an intellectual disability. The teacher began instruction by clearly explaining that each group included children with different strengths and that all members had something to offer the group, and then the learning activities were designed so that students needed to work together and so that students with intellectual disability could fully participate in the activity. At the completion of each session, the teacher offered social praise for collective efforts and products. Results indicated that the cooperative learning groups resulted in positive changes across several different measures of social acceptance of the children with intellectual disabilities, including increased social interactions outside the cooperative learning groups.

A related strategy is class-wide tutoring arrangements with reciprocal tutoring, in which both students in a dyad alternate between the roles of being the tutor and the learner (Delquadri et al., 1986). Though class-wide peer tutoring has been more researched for students with disabilities such as reading or math disabilities (e.g., Fuchs et al., 2020), it also has been utilized with students with autism and/or intellectual disability (Kamps et al., 1994, 1995; Mortweet et al., 1999), and variations of the strategy have been used during play-based interactions with young elementary-aged students, such as in the form of class-wide peer “buddies” during centers in the classroom (Laushey & Helfin, 2000). For example, Kamps et al. employed classroom-wide peer tutoring during which all students in inclusive classrooms—including three students with autism—worked together in tutor-learner pairs. Results demonstrated increased oral reading fluency rates and performance on reading comprehension questions for students with and without disabilities in the classroom. Further, social interactions during unstructured free time in the classroom (immediately following the class-wide peer tutoring) also increased for the three students with autism. Components of effective classroom-wide peer tutoring tend to include alternating tutor-learner roles, having the dyads practice academic or other skills and provide specific types of feedback, providing adult monitoring and support, and providing reinforcement for all students (Kamps et al.; Mortweet et al.).

Across all of these different class-wide approaches, the role of educators in facilitating the intervention is important. There is little evidence that proximity or brief training alone will be sufficient for leading to sustained increases in positive social interaction between students with and without disabilities (Biggs & Carter, 2017). Instead, educators will need to continue to play important roles in facilitating classroom-wide interventions after they are arranged. For example, in Cosbey and Johnston (2006), Kindergarten-aged classroom peers were taught to respond to a classmate’s single-switch AAC device that was programmed with the phrases, “That looks fun. Can I play?” Adults had many roles in
the intervention, including setting-up AAC access for each child based on their individual capabilities, identifying preferred activities and toys, prompting AAC use by the student with a disability (i.e., naturalistic constant time delay), and training and coaching peers to respond to the AAC requests. Results of the study indicated that the classroom-wide intervention increased students’ unprompted requests to peers to play. However, an important finding was that classroom peers responded independently to their classmate with a disability in only about half of the opportunities, requiring something like an indirect or direct verbal prompt in the other half. This finding illustrates the importance of sustained adult facilitation, including the need for systematic approaches built to decrease the level of prompting and involvement of adults over time.

Additionally, it is important to note that not all group-based interventions aimed at increasing peer acceptance of classmates with disabilities are effective. Some interventions that are designed to raise disability awareness may be ineffective or even increase disability stigma in the classroom or school. For example, disability simulations (e.g., using wheelchairs to mimic physical disabilities or blindfolds to simulate visual impairment) may present inaccurate representations or information about people with disabilities, sometimes leading to worsened attitudes toward individuals with disabilities (Salinger, 2020). Similarly, education-focused interventions that primarily present information about differences between individuals with and without disabilities may reinforce negative stereotypes and have no impact or even negative impact on peer acceptance, interaction, and friendship (Salinger, 2020). These approaches may be ineffective because they propagate and reinforce deficit-based ways of thinking about disability and people with disabilities. Instead, peer support interventions both at a class-wide and more individualized level should help children without disabilities see the individuality and strengths of their classmates with disabilities and come to understand disability as a natural part of human diversity, defined by the need for supports to flourish in different environments rather than defined by deficits (Shogren et al., 2017).

Peer Network Interventions and Recess-Based Interventions

A number of different peer support interventions are socially focused, designed to improve interaction and relationships for students with severe disabilities and their peers by supporting greater integration into different social environments at schools, such as lunch, recess, or free time in the classroom (see Table 16.2 for a list of example studies). The earliest peer network interventions in schools reported in the literature date back approximately three decades ago (Gaylord-Ross et al., 1984; Haring & Breen, 1992), and since then, this intervention model has been implemented and tested fairly widely in elementary and secondary levels (Asmus et al., 2017; Biggs et al., 2018; Kamps et al., 2015). A peer network involves establishing a small group comprised of the student with a disability and approximately 2–6 peers without disabilities. The group meets together regularly, which provides repeated opportunities for social interaction and the development of social relationships. Peers provide social or other types of supports (e.g., communication support), and an adult such as a paraprofessional or teacher provides ongoing facilitation for the network. Although the primary focus of peer network interventions tends to be on enhancing social opportunities rather than on instruction, some peer network interventions involve embedding instruction on social or communication skills, either through naturalistic (Biggs et al.) or direct, behavioral approaches (Kamps et al., 2015). Another source of variation within peer network interventions is that the focus can be on establishing a cohesive group in which the same peers participate throughout the duration of the intervention (Biggs et al., 2018; McFadden et al., 2014) or on rotating peers across different intervention sessions (Kamps et al., 1997, 2014, 2015). Establishing a cohesive group of peers can provide students more sustained opportunities to build close friendships, while rotating peers can keep group numbers small with the aim of facilitating generalization across peers.

For example, Kamps and colleagues conducted a series of studies to develop and test the effects of a peer network intervention that involved direct instruction on social skills for students with autism
### Table 16.2 Example Studies of Peer Network Interventions and Recess-Based Interventions

<table>
<thead>
<tr>
<th>Article</th>
<th>Participants</th>
<th>Peers</th>
<th>Intervention components</th>
<th>Roles of adults</th>
<th>Outcomes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Biggs et al. (2018)</td>
<td>4 students with intellectual disability and/or autism (9–10 years)</td>
<td>3–4 peers with each student with a disability</td>
<td>Met regularly to play or participate in a shared social activity; peers learned strategies to support social interaction (e.g., wait time, modeling use of AAC)</td>
<td>Select peers, plan collaboratively for the networks, orient students to the network, prepare materials, provide support to all students in the network, train and coach peers on social interaction strategies</td>
<td>Increased peer interaction and communication skills for the students with disabilities</td>
</tr>
<tr>
<td>Brock et al. (2018)</td>
<td>11 students with autism (8–12 years)</td>
<td>3–4 peers with each student with autism</td>
<td>Peers were trained to use strategies based on pivotal response treatment to use at recess (e.g., ask a buddy to play, show and talk about how to play, social praise, take turns)</td>
<td>Select peers, train peers on interaction strategies, provide ongoing support to peers during recess</td>
<td>Increased peer interaction and appropriate play with peers for the students with autism during recess</td>
</tr>
<tr>
<td>Harper et al. (2008)</td>
<td>2 students with autism (8–9 years)</td>
<td>2 peers with each student with autism</td>
<td>Peers were trained to use strategies based on pivotal response treatment to use at recess (e.g., ask a buddy to play, show and talk about how to play, social praise, take turns)</td>
<td>Select peers, train peers on interaction strategies, provide ongoing support to peers during recess</td>
<td>Increased social initiations and turn-taking of the students with autism during recess</td>
</tr>
<tr>
<td>Kamps et al. (1997)</td>
<td>3 students with autism (6–8 years)</td>
<td>7–11 peers for each student with autism; rotated 2–5 peers at a time in each session</td>
<td>Met regularly across settings to interact socially and learn and practice social skills</td>
<td>Select peers, establish each peer network, provide instruction on social skills, monitor the group and provide feedback and support, provide reinforcement</td>
<td>Increased interaction time with peers across settings for the student with autism</td>
</tr>
<tr>
<td>Kamps et al. (2014)</td>
<td>4 students with autism (6–7 years)</td>
<td>4–6 peers for each student with autism; rotated 2 peers at a time in each session</td>
<td>Met regularly to play games with direct social skills instruction embedded within the group; peers provided prompting on social skills</td>
<td>Select peers, provide direct social skills instruction, monitor the group and provide feedback and support, provide reinforcement</td>
<td>Increased peer interaction for the students with autism</td>
</tr>
<tr>
<td>Kamps et al. (2015)</td>
<td>95 students with autism (5–7 years)</td>
<td>4–6 peers for each student with autism; rotated 2 peers at a time in each session</td>
<td>Met regularly to play games with direct social skills instruction embedded within the group; peers provided</td>
<td>Select peers, provide direct social skills instruction, monitor the group and provide feedback and support, provide reinforcement</td>
<td>Increased initiations to peers, language skills, and adaptive communication skills for the students with autism</td>
</tr>
</tbody>
</table>

(Continued)
In a randomized control trial, educators provided the intervention to 56 kindergarten and first-grade children, comparing the effects with 39 children who did not participate in the intervention. During each peer network meeting, a small group comprised of the student and two peers met to participate in direct social skills instruction and then practice these skills by playing games. Results of the study indicated that students in the peer networks showed more growth in social initiations to peers during play-based sessions with trained peers and with untrained peers, compared to the control group students who did not participate in the intervention.

### Table 16.2 (Continued)

<table>
<thead>
<tr>
<th>Article</th>
<th>Participants</th>
<th>Peers</th>
<th>Intervention components</th>
<th>Roles of adults</th>
<th>Outcomes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kasari et al. (2012)</td>
<td>60 students with autism (6–11 years)</td>
<td>3 peers from each classroom of each student with autism</td>
<td>Peers were taught how to support interactions with any children with social challenges on the playground, including by identifying children who were alone, asking them to play, and providing social support</td>
<td>Select peers, provide peer training and support</td>
<td>Increased social network salience, number of friendship nominations, teacher-reported social skills, and decreased isolation on the playground for students with autism</td>
</tr>
<tr>
<td>Mason et al. (2014)</td>
<td>3 students with autism (6–8 years)</td>
<td>4–6 peers for each student with autism; rotated 2 peers at a time in each session</td>
<td>Met regularly during recess to interact socially and learn and practice social skill</td>
<td>Select peers, provide direct social skills instruction, monitor the group and provide feedback and support, provide reinforcement</td>
<td>Increased peer interaction for the three students with autism</td>
</tr>
<tr>
<td>McFadden et al. (2014)</td>
<td>4 students with autism (5–8 years)</td>
<td>4–5 peers for each student with autism</td>
<td>Role-played social skills with the student with autism; met regularly during recess where peers would model social skills and initiate play with the student with autism</td>
<td>Select peers, provide class-wide social skills instruction, lead pre-recess huddle, monitor play, prompt peers to initiate during recess play, check-in with peers and the student about the use of social skills, provide reinforcement</td>
<td>Increased peer interaction for the students with autism</td>
</tr>
<tr>
<td>Owen-DeSchryver et al. (2008)</td>
<td>3 students with autism (7–10 years)</td>
<td>3–4 peers for each student with autism</td>
<td>Peers were encouraged to interact and become friends with the student with autism and taught strategies to support interaction</td>
<td>Select peers, provide peer training</td>
<td>Increased peer initiations with the students with autism by trained and untrained peers</td>
</tr>
</tbody>
</table>

*Note. AAC = augmentative or alternative communication*
participate in a peer network intervention. Teacher reports of language skills and pragmatic communication skills were also greater for students who participated in the peer network intervention. The vast majority of the literature on peer network interventions has focused on students with autism and students who use verbal speech to communicate. However, researchers more recently have begun to investigate the effects of peer network interventions for a broader, more diverse group of students with disabilities, including students with complex communication needs (Biggs et al., 2018; Herbert et al., 2020). Biggs et al. investigated the effects of a peer network intervention for four elementary-aged students with intellectual disability or autism who had limited verbal speech and communicated primarily through prelinguistic modes (e.g., gestures, vocalizations or sound) but were learning to use different forms of aided AAC. Teams consisting of each student’s special education teacher, paraprofessional, speech-language pathologist, parents, and general education teacher collaboratively planned for the intervention by discussing intervention goals, selecting peers (3–4), using student interests to plan activities for the network, and identifying target vocabulary. During the intervention, all peer network members met regularly during lunch or free time in the classroom to engage in a shared activity related to students’ interests (e.g., animal crafts, making jewelry, space station set). A paraprofessional supported the network, and peers learned simple social interaction strategies, which included initiating interaction, using wait time, and modeling the use of aided AAC during natural interactions (i.e., the peer would not prompt the student to use the aided AAC device but would use it as part of their own communication, such as by point to MY TURN in a communication book or speech-generating device while saying “It’s my turn now.”) Results indicated that the peer network increased peer interaction for the students with disabilities and that students began using symbolic communication more in their interactions with peers when peers also used the aided AAC device as a shared means of communication.

Closely related to peer network interventions are recess-focused interventions that involve peer support (Brock et al., 2018; Harper et al., 2008; Kasari et al., 2012; Mason et al., 2014). For example, Brock et al. and Harper et al. found that peer interaction and play increased for students with autism when 2–4 peers were trained to use social support strategies based on pivotal response treatment (PRT), including asking a buddy to play, modeling and talking about how to play, providing social praise, and taking turns. Kasari et al. developed an intervention that—instead of specifically identifying the student with ASD as being the recipient of peer support—taught 3 peers from each classroom about how to support positive interactions with children who were alone or unengaged on the playground. This included teaching peers to identify children who were alone, ask them to play, and provide social support, such as by modeling or facilitating engagement in games and play. In a group design study with 60 children with autism spectrum disorder (ASD) and their classroom peers, the researchers found that the peer support intervention decreased isolation on the playground and improved students’ social network salience (i.e., the prominence or centrality of a child within a classroom social network), friendship nominations, and teacher-report of social skills in the classroom. The study design compared the peer support intervention with a child-focused intervention that involved direct instruction on social skills through didactic instruction and practice with an adult. Although the child-focused intervention also improved social network salience, the changes were smaller and more temporary than for the peer support intervention. Taken together, this research emphasizes the powerful role that peers can have in improving social outcomes for students with severe disabilities.

Peer-Mediated Instruction and Peer Support in Classroom Settings

Another broad category of peer support interventions involves peer-mediated instruction or peer support in classroom settings. These interventions typically involve researchers or educational practitioners (e.g., teachers, paraprofessionals), selecting peers to provide support, arranging the classroom environment to facilitate opportunities for students and peers to work together (e.g., adjusting seating
### Table 16.3 Example Studies of Peer-Mediated Instruction and Peer Support in Classroom Settings

<table>
<thead>
<tr>
<th>Article</th>
<th>Participants</th>
<th>Peers</th>
<th>Peer Roles</th>
<th>Roles of adults</th>
<th>Outcomes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chung and Douglas (2015)</td>
<td>3 students with autism (10–12 years)</td>
<td>2 peers for each student with autism</td>
<td>Initiate and respond to social interaction with support from the paraprofessional</td>
<td>Select peers, arrange seating to sit with peer partners, program vocabulary on SGD, train paraprofessionals to facilitate interaction by prompting initiations</td>
<td>Increased SGD use and reciprocal peer interaction for the students with autism</td>
</tr>
<tr>
<td>Hudson et al. (2014)</td>
<td>3 students with intellectual disability (Upper elementary)</td>
<td>3 peers who worked in a one-to-one format with the students with disabilities</td>
<td>Read an adapted text and ask questions about the text, provide prompting (least-to-most prompting) when asked for help</td>
<td>Select peers, adapt grade-level science lessons and texts, create response boards, write scripts for peer tutors, train peer tutors</td>
<td>Increased correct responses to comprehension questions about grade-aligned science texts</td>
</tr>
<tr>
<td>Hunt et al. (2002)</td>
<td>3 students with severe and multiple disabilities (Grades K-5)</td>
<td>Multiple peers for each student</td>
<td>Provide individualized social, communication, and academic supports</td>
<td>Meet collaboratively to develop individualized support plans, implement and review identified supports</td>
<td>Decreased non-engagement and increased reciprocal peer interaction, communicative initiations, and AAC use for the students with disabilities</td>
</tr>
<tr>
<td>Hunt et al. (2003)</td>
<td>3 students with severe disabilities and 3 other struggling learners (4th Grade)</td>
<td>Multiple peers for each student</td>
<td>Provide individualized social, communication, and academic supports</td>
<td>Meet collaboratively to develop individualized support plans, implement and review identified supports</td>
<td>Decreased non-engagement and increased reciprocal peer interaction and communicative initiations for the students with disabilities and who were struggling learners</td>
</tr>
<tr>
<td>McCurdy and Cole (2014)</td>
<td>3 students with autism (7–11 years)</td>
<td>1 peer for each student with autism</td>
<td>Provide behavioral supports by reminding about desired behaviors, providing encouragement, providing prompting if off-task, provide praise</td>
<td>Select and train the peer supporter, arrange seating for the student and peer to sit next to each other, monitor the peer supporter</td>
<td>Decreased minor off-task behaviors of the students with autism</td>
</tr>
<tr>
<td>Wu et al. (2020)</td>
<td>3 students with autism and/or intellectual disability (8–9 years)</td>
<td>3 peers for each student with a disability</td>
<td>Teach science concepts through individual tasks (e.g., model-lead-test, model the SGD, provide reinforcement)</td>
<td>Select peers, write scripts for peer tutors, orient and train peers for their roles, teach pees how to use the SGD, teach science concepts to peers</td>
<td>Increased demonstrated knowledge of science concepts for the students with disabilities</td>
</tr>
</tbody>
</table>

Note. SGD = Speech-generating device
arrangements), and encouraging peers to use different strategies to provide social, academic, communication, or other types of supports to a student with a disability. Table 16.3 provides examples of studies that have focused on peer-mediated instruction or peer support in classroom settings, outlining the various roles of adults in each intervention.

Although peer support arrangements in inclusive classrooms have been more widely investigated at secondary levels (Biggs et al., 2017; Brock & Huber, 2017; Carter et al., 2016), there also are a number of studies that have addressed this type of support at elementary levels. For example, Hunt and colleagues conducted a series of studies focused on the effectiveness of a collaborative teaming process that involved general and special education staff on the academic and social participation of students with disabilities in general education classrooms (Hunt et al., 2002, 2003). Individualized supports and adaptations were selected for each student using a method of planning called a Unified Plan of Support. An integral part of the plans included various forms of peer support, such as having students work with peers in small groups or pairs, having peers provide assistance when asked by the student, and teaching peers to provide social and communication support (e.g., initiating interaction, modeling manual signs). Results indicated that the collaborative teaming process supported the consistent implementation of the Unified Plans of Support and was effective at increasing students’ engagement in classroom activities, social interactions with peers, and academic skills.

Several studies investigating peer support in instructional settings have focused specifically on students with complex communication needs who use various forms of AAC, such as speech-generating devices (Chung & Douglas, 2015; Hunt et al., 2002; Wu et al., 2020). For example, Chung and Douglas evaluated the impact of an intervention package that involved training paraprofessionals to encourage peers to initiate interaction and respond to communication attempts from students who used speech-generating devices during related arts classes (e.g., art, library). The results indicated that the intervention was effective in increasing communication and reciprocal peer interaction within these classroom settings. Wu et al. examined the effects of peer support to promote general education access for students who used speech-generating devices, focusing on peer-mediated instruction on science concepts. The intervention involved peers working in specific roles (i.e., leading instruction through a model-lead-test procedure, modeling science-related vocabulary on the speech-generating device, and providing reinforcement), and was found to be effective in increasing knowledge of grade-aligned science concepts, as measured by performance on multiple-choice science quizzes. However, it is important to note that the intervention was delivered in a separate setting and further research is needed to extend this research to inclusive classroom settings.

Outcomes of Peer Support Interventions

Social-Related Benefits for Students with Disabilities

When used effectively, peer support interventions can help children with disabilities develop social and communicative competence (Biggs et al., 2018; Chung & Douglas, 2015; Kamps et al., 2015; Kasari et al., 2012), can facilitate friendship development among students with and without disabilities, and help students experience a sense of belonging in their classroom and school communities (Biggs & Carter, 2017; Meyer & Ostrosky, 2016). It is important to recognize that these benefits can come from peer support interventions designed to be socially focused, but also those that have an academic focus. For example, cooperative learning groups and classroom-wide peer tutoring have a strong academic focus, but these interventions also can lead to improved social outcomes because they provide structured opportunities for students with and without disabilities to interact with one another, build social and communication skills, and establish a
classroom community within meaningful shared learning experiences with one another (Kamps et al., 1994; Mortweet et al., 1999).

**Academic-Related Benefits for Students with Disabilities**

Collectively, research indicates that peer support interventions not only offer advantages related to fostering social interactions and peer relationships, but that these interventions also promote academic engagement equally well, as if not better than, individually assigned paraprofessional supports (Brock & Huber, 2017; Carter et al., 2007). Further, peer support at class-wide and individual levels can be used to promote the acquisition of academic knowledge and skills, promoting meaningful access to and progress in general education curriculum for students with disabilities (Dugan et al., 1995; Hudson et al., 2014; Hunt et al., 2003; Wu et al., 2020).

**Benefits for Peers without Disabilities, Teachers, and Classrooms**

The benefits of peer support interventions are not exclusive to students with disabilities. For example, Cushing and Kennedy (1997) demonstrated that peers without disabilities also experienced benefits from participating in peer support interventions in classroom settings, such as increased academic engagement, assignment completion, and classroom participation. Similarly, peers without disabilities have been shown to make more academic progress and be more engaged in their learning when they participate in class-wide cooperative learning groups and reciprocal tutoring arrangements with classmates with disabilities, as compared with adult-led instruction alone (Dugan et al., 1995; Kamps et al., 1994, 1995; Mortweet et al., 1999). For peers, shared learning experiences and challenges with their classmates with disabilities may be particularly powerful in shaping perceptions of being “similar” to their classmates with disabilities. As described by Jackson et al. (2008), feelings of similarity occur not necessarily because peers perceive their sets of abilities as being the same but because they have shared experiences and face shared learning challenges. Thus, benefits for peers participating in well-designed peer support interventions can include increased acceptance of classmates with disabilities and friendships with these classmates (Biggs et al., 2018; Biggs & Snodgrass, 2020; Meyer & Ostrosky, 2016; Piercy et al., 2002).

At times, teachers, administrators, or parents may be concerned that peer support interventions could negatively impact the peers without disabilities, either socially or academically. In contrast to these concerns, there is no evidence that participating in peer support interventions negatively impacts peers. For example, Schaefer et al. (2016) reviewed peer support literature to examine the impact on peers, concluding that educators can pursue implementing these interventions with “confidence that the interventions will not negatively affect peers” (p. 352). Looking more specifically at social impact, other research found that peers who participated in a social skills intervention with children with autism maintained a high, positive social status over the duration and following the intervention (Locke et al., 2015).

Finally, other studies also indicate that peers without disabilities who participate in peer support interventions rate their experiences in the intervention positively, saying they would want to continue serving in these roles and would recommend these types of roles to other students in the future (e.g., Biggs et al., 2018; Brock et al., 2018).

Educators themselves, such as general education teachers and paraprofessionals, also can benefit from implementing peer support interventions. For example, as a follow-up to the *Special Friends* class-wide intervention, Kindergarten teachers participated in an interview about their perceptions and experiences. Teachers reported that they benefited from the intervention because they felt more comfortable and confident discussing disability-related topics, whereas they felt uncomfortable and uncertain about how to do this before (Dorsey et al., 2016). Implementing peer support...
interventions with support and supervision from licensed special education teachers can also help paraprofessionals better understand their roles and move from being exclusive or primary supports for students with disabilities to more facilitative roles. In several studies, paraprofessionals have shared they enjoy their roles facilitating peer support interventions, found them rewarding, and wanted to continue them or implement them with other students (e.g., Biggs et al., 2017; Chung & Douglas, 2015).

**Setting the Course for Effective Inclusion**

**Important Components of Interventions Involving Peers**

The different peer support approaches that have been reviewed are diverse, but each also has a number of different components in common. Identifying these components can help educators understand key considerations in the utilization of peer support interventions to support outcomes in inclusive schools and classrooms. These components include: a strengths-based approach to disability, collaboration among educators and service providers, meaningful and motivating shared activities for students with and without disabilities, communication support for students with disabilities, and high-quality adult support.

**Strengths-Based Approach to Disability**

Although the history of special education has been shaped primarily by deficit-based views of disability, there are ongoing efforts to shift educational practices so they are driven by strengths-based approaches and a social-ecological model of disability (Shogren et al., 2017). This approach means that educators seek to enhance students’ functioning in natural settings by identifying and arranging supports to effectively address any mismatches between students’ areas of personal competence and their environmental demands (Shogren et al., 2017). This can include identifying the supports needed to meet environmental demands in general education classrooms and related to accessing the general education curriculum, but also across inherently social settings at schools such as hallways, at recess, in the lunchroom, and before and after school. Peer support interventions are particularly promising to support effective inclusive education when educators see the focus of peer support as being a means of providing natural supports that can maximize students’ functioning across these different natural settings at school. Therefore, important components to successful peer support interventions include positive peer and educator attitudes about the capabilities of students with disabilities and a focus on identifying, arranging, and encouraging supports that peers can provide that will promote students’ participation, membership, and belonging in natural settings at school.

**Collaborative Planning and Implementation Among Educators**

Supporting students with disabilities in inclusive settings requires careful planning and support, which necessitates strong collaborative teaming across educational team members, such as special education teachers, general education teachers, and paraprofessionals. For many students, the involvement of other related service providers may also be crucial to the success of peer support interventions, such as involving speech-language pathologists in intervention planning and implementation for students with complex communication needs who are learning to use AAC. Peer support interventions should be planned carefully and collaboratively, not implemented haphazardly. In most cases, planning will need to involve individualizing certain aspects of the intervention, such as identifying specific goals, ensuring access to effective communication response.
modes through AAC, adjusting peer support strategies to meet specific expectations or activities in the classroom or other environment, and building on student interests and strengths in the design of interventions.

The literature is replete with examples of how to carefully and collaboratively plan for supports in inclusive settings, which can be leveraged to support this important aspect of peer support interventions (Biggs et al., 2017, 2018; Hunt et al., 2002, 2003). For example, Cushing et al. (2005) outlined a general framework for planning that is useful for classroom settings. This planning process involves consideration of (a) grade-level academic standards and learning objectives, (b) the expectations of general education teachers for students in their classrooms, (c) specific Individualized Education Program (IEP) goals that a student is working toward, and (d) the supports that students need to be able to participate in the social and learning opportunities in that classroom. Carter et al. (2011) outlined a planning worksheet that is specifically focused more specifically on identifying peer support strategies across different segments of a class, such as at the start of class, during whole-class instruction, during small group or partner activities, during independent work, and during transitions in the classroom. This planning worksheet has since been further developed and applied multiple times, including for students with complex communication needs (Biggs et al., 2017; Brock et al., 2020; Carter et al., 2016). Functioning similarly to an ecological assessment, the team can use the planning worksheet to focus on each of these segments of the class and: (a) identify what all peers are doing, (b) evaluate how the student with a disability can participate, (c) list specific ways the peers can support the student during each activity, and (d) identify strategies for how adults—such as paraprofessionals—can facilitate the student and peers in working and learning together (Brock et al., 2020; Carter et al., 2011). Kurth et al. (2020) offer another similar planning tool that involves ecological assessments to identify universal and individualized supports for including students in general education classrooms, which can easily be used to identify ways include peer support as a means for improving participation, membership and learning in inclusive settings.

Written plans are important because they can help everyone on a team have common expectations and understandings about the intervention, including paraprofessionals. Paraprofessionals can be a tremendous asset in implementing peer support interventions in both classroom and social settings at school (Biggs & Carter, 2017), and they will likely have valuable input to share when planning for peer support arrangements about strategies that will be effective and feasible. However, it is important to remember that paraprofessionals should not be left to assume the role of making primary instructional decisions for students with disabilities. Beyond this, it is also important to remember that planning should ultimately support a successful implementation, should not be overburdensome, and should be approached in a dynamic way that allows for adjustment based on input from team members, peers, and students with disabilities themselves. For example, in the model of using Unified Plans of Support, the collaborative teams reviewed and revised plans over time by using the planning worksheet to guide regular monthly discussion about the extent to which supports were being implemented and their effects (Hunt et al., 2003). Peer supports that are perceived by team members as being ineffective or not practical to implement can then be revised or removed from the plan.

**Meaningful and Motivating Shared Activities**

One of the core ingredients in peer support interventions is ensuring students with and without disabilities have opportunities to spend meaningful time learning and socializing together. Unfortunately, many students with severe disabilities still spend much or most of their day in segregated settings such as special classes, and one of the most prominent barriers to interaction among students with and without severe disabilities is that these students are not spending time in the same places, doing the same things (Brock et al., 2020; Kurth et al., 2020). However, more than
simply shared environments, it is shared learning and social activities that are critical to the success of peer support interventions. Further, the types of activities that form the context for peer support, and the roles that peers are asked to assume, are important to consider. Although some peer support interventions adopt unilateral support roles for peers, reciprocal interactions and relationships among children with and without disabilities are not likely to come from peer support interventions unless these interventions ensure reciprocal, valued roles for all students (Allport, 1954; Biggs & Snodgrass, 2020; Brock et al., 2020). Thus, when planning and implementing peer support interventions, educators should consider whether the activities and roles for peers emphasize predominantly ‘helping’ relationships or provide a context out of which reciprocal interactions and relationships might be more likely to develop.

Communication Support for Students with Disabilities

A sizeable number of students with severe disabilities have not established a reliable mode of communication (Kearns et al., 2011). Such students may communicate pre-intentionally, use idiosyncratic means of communication that are not readily understood by others, or be still learning to use conventional or symbolic forms of communication, such as having a small number of single words, signs, gestures, or symbols on a speech-generating device that they use for restricted purposes or in restricted types of settings. Thus, successful communication support, such as access to and integration of different forms of aided AAC (e.g., picture symbols, speech-generating devices), is an important part of effective interventions involving peers. When planning for and implementing peer support interventions, educational teams should ask themselves: Do students have a reliable means of communicating with their peers? What communication supports do students need to ensure this is possible? Peers themselves can actually be quite effective at providing communication support when they are shown how to do this well. For example, with training and support, peers can learn to incorporate AAC, such as the use of speech-generating devices in their interactions, which then provides natural models of language when they talk, play, and learn with their classmates with disabilities (Biggs et al., 2018; Wu et al., 2020). Teaching peers to use AAC as a shared means of communication with a classmate with a disability can demonstrate the AAC device is a valuable and encouraged means of communication and help students build connections between spoken words, graphic symbols on the AAC system, and the things or ideas that these symbols represent. (Biggs et al., 2019).

High-Quality Adult Support

Over time, this burgeoning body of literature has made it clear that the roles of adults in peer support interventions are crucial. Simply putting children with and without disabilities in physical proximity without further guidance or support is not very effective. Instead, the roles of educators such as special and general educators, paraprofessionals, and other school staff are crucial to the effectiveness of peer support interventions. Prior research has shown that intrusive adult support can hinder social interactions among students with and without disabilities (Carter et al., 2007; Giangreco et al., 2005), yet it also is clear that the facilitative roles of adults in peer support interventions are crucial, such as selecting and inviting peers, arranging the environment and designing instruction to support students in learning and socializing with one another, orienting peers and students to working together, equipping peers with specific support strategies, and providing ongoing feedback and support (Biggs & Carter, 2017). Thus, it is important that educators find the right balance between providing just enough adult support to ensure the success of the intervention but not too much or too intrusive support that it hinders social interactions and relationships among children with and without disabilities. Biggs and Snodgrass (2020) used interviews with peers
without disabilities to learn about their views about developing friendships with other children with and without disabilities, and the findings are helpful for illustrating these points about adult roles in peer support interventions. In the interviews, children talked about how they became friends with classmates with disabilities in ways that clearly signaled important roles of adults (e.g., facilitating opportunities for shared learning and social activities, promoting ways for children to get to know one another, providing communication support for students with disabilities); however, the children themselves had very little to say about the roles of adults in their friendships. This finding reinforces the idea that although educators need to play active roles in peer support intervention, it is important to do so in a way that is minimally intrusive to the interactions themselves between students. Gifford-Smith and Brownell (2003) talked about this as being the “separate social world” (p. 236) of children who are friends. Learning how to find the right balance can be difficult for educators and will require intentional effort, as well as training and support. For example, some teachers have discussed that stepping back and directly intervening less can be one of the more challenging aspects of implementing peer support interventions (Dorsey et al., 2016).

**Supporting Implementation of Peer Support Interventions**

Peer support interventions offer incredible promise for supporting what it truly means for students with disabilities to be included and belong to their schools and communities. The literature reviewed in this chapter underscores that well-designed peer support interventions can offer numerous benefits to students with disabilities, their peers, their educators, and their broader classroom and school communities. However, these interventions cannot fulfill this promise unless they are consistently implemented well in everyday schools. It has long been recognized that there is a persistent and growing gap between the identification and use of effective interventions in practice (Cook & Odom, 2013) and that a number of different contextual determinants impact the extent to which and quality with which effective interventions are implemented (Domitrovich et al., 2008). Contextual determinants can be thought of as facilitators or barriers to successful implementation—the numerous factors at intersecting levels (e.g., students, educators, schools) that push and pull on how well research-based interventions such as peer support interventions can be implemented.

In the broader literature, research has helped to generate knowledge about these contextual determinants, as well as possible resources and strategies to address the problems and complexities of implementation in real-world schools and classrooms (Cook & Odom, 2013; Locke et al., 2016). Much of this literature has signaled that an important determinant to effective intervention implementation and outcomes is the social validity of an intervention, a term that refers to the extent to which key stakeholders such as educators, peers, and students with disabilities themselves think an intervention is important, has acceptable procedures, and produces valuable outcomes (Wolf, 1978). Researchers have assessed the social validity of peer support interventions using a number of different methods, including interviews, questionnaires, focus groups, rating scales, and even analysis of journal entries of educators implementing the intervention. Generally speaking, this research has affirmed the social validity of peer support interventions. Students with disabilities, peers, and educators have indicated that they enjoy participating in these interventions, find the outcomes beneficial and meaningful, would want to continue participating in the future and would recommend peer support interventions to other students or educators (e.g., Biggs et al., 2018; Brock et al., 2018; Chung & Douglas, 2015; Dorsey et al., 2016; McCurdy & Cole, 2014).

Moving forward, though, there are still many important and unanswered questions about what factors influence the effective implementation of peer support interventions as an effective strategy for inclusive education and the extent to which these different factors might be malleable. There is an important need for research focused on understanding how individual (e.g., teacher), organizational (e.g., school), and macro-level factors (e.g., district) influences the implementation of effective peer support interventions in
practice (Domitrovich et al., 2008), as there has been little empirical research focused on this area. Doing this may require that researchers build on work and theories that have been generated in related fields. For example, Locke et al. (2015) expanded prior work about barriers to implementation of mental health interventions in school settings to learn that many of the same determinants impacted the implementation of a recess-focused intervention for students with autism. Factors that acted as barriers included policies that limited recess time, staffing shortages, limited foundational training and knowledge about students with disabilities, competing demands and priorities, the level of respect and support for paraprofessionals, and availability of resources. More intently pursuing answers to these types of questions will be a crucial pathway for future research related to peer support interventions, as will finding strategies and resources to support implementation in real-world schools. Doing this will ensure that the promise of peer support can become a reality in everyday schools, supporting participation, membership, and learning for all students, including students with severe disabilities.

**References**


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