# Children's Perspectives on Their Relationships with Friends With and Without Complex Communication Needs 

Elizabeth E. Biggs'(D) and Melinda R. Snodgrass² ${ }^{\text {(D) }}$


#### Abstract

Friendships are central to children's development and well-being, but children with intellectual and developmental disabilities who have complex communication needs are at risk of social isolation. This qualitative study used methods informed by grounded theory to investigate the nature of how elementaryage children without disabilities described the experience of friendship and the dynamics of friendship development with their friends with and without complex communication needs. Sixteen children participated in semi-structured interviews. Each indicated they were friends with one of four children who received special education services under categories of autism and/or intellectual disability and was learning to use aided augmentative and alternative communication (AAC). Interviews were structured to hear each child talk separately about two different friendships: (a) one with any friend they chose and (b) one with the friend with complex communication needs who was learning to use aided AAC. Findings included the development of a model to conceptualize the substance and development of these friendships. Findings also highlighted how children's experiences of friendship with the friend with complex communication needs intersected with how they experienced, talked about, and made meaning of their friend's disability. Implications for research and practice discuss potential pathways for promoting friendships in schools.


## Keywords

autism, intellectual disability, friendship, augmentative and alternative communication (AAC), peer relationships

Positive peer relationships-particularly reciprocal friendships-have critical roles in promoting overall well-being and development (Bukowski et al., 1998; Rubin et al., 2009). Different factors may explain why children with reciprocal friendships are more likely to flourish. High-quality friendships are associated with a stronger sense of belonging (Williams \& Downing, 1998), stronger feelings of self-worth and adjustment (Franco \& Levitt, 1998), increased happiness (Holder \& Coleman, 2009), and decreased peer victimization (Hodges et al., 1999). Children receive social support from friends, such as intimacy, companionship, emotional support, and increased social capital (Bukowski et al., 1998; Rubin et al., 2009). Furthermore, children's friendships have a cascading effect on social-emotional, cognitive, and language development, providing opportunities to acquire skills that impact functioning across the life span (Bukowski et al., 1998).

[^0]Taken together, research has revealed that relating well with peers is one of the most important developmental tasks of childhood (Rubin et al., 2009; Shonkoff \& Phillips, 2000).

Although scholars have debated over precise definitions, there is still considerable agreement on what constitutes friendship (Bukowski \& Sippola, 2005; Rubin et al., 2009). These core elements relate to the characteristics of friendships (e.g., reciprocal in nature and stable across time) and the functions that friendships serve (e.g., mutual companionship, emotional support, and affection; Bukowski et al., 1998; Webster \& Carter, 2007). In literature focused on children and adolescents with intellectual and developmental disabilities, definitions of friendship have emphasized aspects of agency (rather than obligation) and of reciprocity (rather than benevolence or one-way helping relationships; Rossetti \& Keenan, 2018).

Beyond these core aspects, differences across definitions of friendship can be attributed to many factors. Researchers have found that the exact nature of friendship varies across relationships (Bukowski et al., 1998). Friendship also evolves across stages of development. In early childhood, most preschoolers develop relatively stable peer relationships that provide companionship (Dunn, 2004; Rubin et al., 2009). However, these friendships are defined primarily by proximity and shared activity rather than intimacy, a feature distinguishing them from friendships in later stages of development (Bukowski et al., 1998). Intimacy involves "closeness" in relationships, including qualities such as deep understanding, honesty and trust, mutual influence, and relational commitment (Rubin et al., 2009). Friendships gradually take on these qualities during middle childhood, a period from approximately 6 until around 12 years of age, which aligns primarily with the years children spend in elementary school (Feldman, 2010).

These changes make middle childhood an especially pivotal period for peer relationships (Bukowski et al., 1998). By the end of middle childhood, important developments characterize most children's relationships with their peers: friendships are more intimate, a substantial portion of social interactions involve peers, and these interactions occur across a wide number of contexts (e.g., school, home, and community). Peer groups also enlarge, become more stable, and are less closely supervised by adults (Rubin et al., 2009). Thus, in middle childhood "children can truly be said to participate in a separate social world of their peers" (Gifford-Smith \& Brownell, 2003, p. 236).

Elementary school settings provide the backdrop for this critical developmental period, both for children with and without disabilities. Classrooms, playgrounds, lunchrooms, and hallways at school are rich with opportunities for children to develop friendships through shared learning and social interactions. Yet, children with intellectual and developmental disabilities are vulnerable to experiencing difficulties establishing positive peer relationships. Researchers have found that children with developmental disabilities-particularly those who have complex communication needs and use augmentative and alternative communication (AAC) -interact infrequently with peers, even when present in inclusive settings. For example, Chung et al. (2012) observed 16 elementary and middle school students who used AAC. Although the students were present in general education classrooms and in proximity to peers, they almost exclusively interacted with adults-typically a paraprofessional or special education teacher.

Children with developmental disabilities have also been found to have fewer reciprocal friendships and smaller social networks as compared with peers without disabilities (Kasari et al., 2011; Raghavendra et al., 2012). Other research has suggested that when peer relationships do form, they may be lower in quality than relationships between children without disabilities (e.g., lower levels of companionship, shorter in duration, unilateral rather than reciprocal, and existing only within school contexts; Kersh et al., 2013). Furthermore, parents and educators have described peer interactions and friendships for children with complex communication needs as being infrequent and challenging to know how to support (Kent-Walsh \& Light, 2003).

Yet, existing research also reveals the potential for close, meaningful friendships between children with and without disabilities, including those who have complex communication needs. Rossetti and Keenan (2018) reviewed research focused on the nature of friendship for school-age students with developmental disabilities who have extensive support needs. They highlighted two important themes from this literature: that close friendships are possible between children regardless of disability status and, at the same time, that the nature of these friendships may "look different" (p. 204) than friendships between peers without disabilities.

Few studies, however, have focused on children with complex communication needs during middle childhood, signaling a need to better understand the nature of friendship during this pivotal
developmental period. Staub et al. (1994) used multiple case study methodology, involving observations, videotaping, and interviews to study the relationships between four elementary-age students ( $6-12$ years) and their peers without disabilities. Each of the four identified children was described to have an intellectual disability and use varied means to communicate, including aided AAC and verbal speech (i.e., one- to three-word utterances with limited intelligibility). Staub and colleagues' four portraits of friendship illustrated the companionship within these relationships and revealed several factors likely influencing the formation of these friendships. For each dyad, children had access to shared environments and activities within inclusive classrooms. Teachers used strategies to facilitate the social inclusion of all students, such as providing collaborative learning opportunities, promoting acceptance, and teaching about disability. Parents of the children without disabilities supported and recognized these friendships in different ways. These case studies also highlighted the ways children took on caring roles to support their friend with a disability, such as helping during transitions or classroom activities. Staub et al. discussed this as raising the critical question of whether or not there is a "tension between the role of being a friend and being a tutor or caretaker" ( p .324 ), including how children in these friendships might experience this tension.

Anderson et al. (2011) focused on the perspectives of peers without disabilities on the nature of their friendships with three children who had cerebral palsy and used speech-generating devices. Peers depicted their friendships as being fun and rewarding, but they also perceived a number of differences relative to other relationships. Interactions were described as challenging at times and involved using a range of different strategies to support communication (e.g., learning to respond to nonverbal communication, seeking help from adults). Playing and spending time together was also perceived as being different, particularly because of physical access barriers for their friend. Other findings highlighted connections between children's experiences of friendship and their attitudes about disability (e.g., acceptance and sympathy/empathy), which presented differently across the friendships. As in Staub et al. (1994), peers also described how they found themselves navigating between being both friend and caregiver.

Østvik et al. (2018) conducted interviews with children who used AAC, fellow students, parents, and school staff to investigate aspects of agency and preference in the formation of friendships. They found that children who used AAC and fellow students who communicated using verbal speech mutually expressed preference for spending time with one another. Their findings also highlighted the importance of play, interaction, and shared activities as "gateways to friendship" (p. 92). Yet, a number of challenges may exist related to these pathways to friendship within school environments. For example, in a companion article, Østvik et al. (2017) reported that students using AAC had limited opportunities to play and interact with fellow students.

These studies provide important insight into the nature of friendship between children with complex communication needs and their peers. Additional research specifically focused on how children experience the dynamics of developing these relationships could further indicate pathways for promoting friendships in schools. Furthermore, most children within existing research studies regularly used symbolic communication, such as through speech-generating devices or spoken words. Many other children with complex communication needs rely primarily on prelinguistic communication (e.g., vocalizations/sounds, gestures and movements, and facial expressions), sometimes even while they are starting to communicate symbolically using aided AAC. Additional research that focuses on children who are prelinguistic and/or early emerging symbolic communicators is needed because the way peers experience friendship development may be different based on this aspect of children's communication skills.

The purpose of this study was to investigate children's perspectives on their friendships with classmates with complex communication needs who were learning to use aided AAC but primarily used prelinguistic forms of communication. Our aim was to more clearly understand the perspectives of these children on the "stuff of friendship"-that is, what friendship is and how it "happens" (Bukowski \& Sippola, 2005, p. 92), by addressing the question, "What is the nature of how elementary-age children describe the experience of friendship with their friends with and without complex communication needs?" We were specifically interested in contributing to existing literature through a novel approach of asking children to talk separately about two different relationships: one with a friend with complex communication needs and another with a
friend who used verbal speech to communicate. Our goal was to generate a theory of friendship development to understand similarities and differences across these different experiences of friendship.

## Method

We conducted a qualitative study using interviews and based on a grounded theory approach most closely aligned with the work of Corbin and Strauss (1990, 2008).

## Participants

After receiving institutional review board (IRB) approval, we used purposeful sampling to identify elemen-tary-age children who were friends with a classmate with complex communication needs. Four students with complex communication needs were identified through their participation in a separate study investigating peer network interventions (Biggs et al., 2018). Each received special education services under the categories of autism and/or intellectual disability, was learning to use aided AAC (i.e., with modeling and prompting), and communicated primarily using prelinguistic communication (e.g., gestures and vocalizations). To be included in the present study, children were nominated by their general educator as someone who (a) showed sustained interest in spending time with one of the students with complex communication needs (i.e., across several months), (b) interacted positively with the student on a daily basis, and (c) would likely consider him or her to be a friend. The four teachers nominated 19 children. Before inviting the nominated children to participate, teachers asked each child to name their friends in the classroom. Each named their classmate with complex communication needs as their friend and was therefore eligible to participate. Of the 19 children, three did not return parental consent forms; the remaining 16 participated.

Participant characteristics are presented in Table 1 alongside a description of the friend with complex communication needs. The students with complex communication needs did not participate directly in this study. Some of the participants were also part of the Biggs et al. (2018) study (see Table 1); however, participation in the Biggs et al. study was not required for participation in the current study because our goal was to explore friendships more broadly. Participating children attended two different elementary schools in a large, urban district.

## Data Collection

The first author conducted individual semi-structured interviews with each participating child in a private but open space at school (e.g., during lunch at a private table in a lobby area). Participants were familiar with the interviewer because she had been conducting research at both schools throughout the school year. Interviews were audio recorded and ranged in length from 17 to $50 \mathrm{~min}(M=27 \mathrm{~min})$. The interviewer used a conversational approach that allowed children to talk freely while using a written protocol as a guide (see Table 2), and she used follow-up probes to encourage children to expand their responses to each of the main topic questions. The protocol was designed by considering the research question, reviewing related literature, and seeking feedback from an external peer expert. Within the interview protocol, children were first asked to identify any friend they chose and respond to questions about that friend. Thereafter, they were asked similarly worded questions about their friendship with the student with complex communication needs.

## Data Analysis

All interviews were transcribed verbatim, deidentified with pseudonyms, and imported into Dedoose (Version 8.1.10), a web-based application for data analysis. Using a team-based approach to strengthen trustworthiness (Patton, 2002), we analyzed data using an inductive process guided by grounded theory and the constant comparative method (Corbin \& Strauss, 2008). The interviewer and one other researcher comprised the research team; both had a number of years of experience working with children with and without

Table I. Participant Characteristics.

| Pseudonym | School (grade) | Age in years | Racial/ethnic <br> background | Sex | Years known | Years of <br> friendship |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |

Grace's friends
Grace was a 9-year-old female with an autism diagnosis who spent approximately $60 \%$ of the school day in general education settings. She communicated using gestures, limited echolalic speech, and an iPad with Proloquo2Go.

| Daniela $^{\mathrm{a}}$ | A (third) | 8 | Hispanic | F | 2 | I |
| :--- | :--- | :--- | :--- | :--- | :--- | :---: |
| Maddie $^{\mathrm{a}}$ | A (third) | 8 | White | F | I | $<1$ |
| Sofie $^{\mathrm{a}}$ | A (third) | 8 | White | F | I | $<1$ |
| Stephanie $^{\mathrm{a}}$ | A (third) | 9 | Asian American | F | 4 | 4 |

Jeremy's friends
Jeremy was a IO-year-old male with diagnoses of autism and Down syndrome who spent approximately $70 \%$ of the school day in general education settings. He communicated using gestures, vocalizations, limited verbal speech (with limited intelligibility), and a QuickTalker23 speech-generating device.

| Aiyesha | B (fourth) | 10 | Biracial, Black/ White | F | 4 | 3.5 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Ciara ${ }^{\text {a }}$ | B (fourth) | 10 | Black | F | 1 | $<1$ |
| Desirae | B (fourth) | 10 | Black | F | 2 | 1 |
| Iris ${ }^{\text {a }}$ | B (fourth) | 9 | White | F | 2 | 2 |
| Zara | B (fourth) | 9 | Black | F | 2 | $<1$ |

Joanna's Friends
Joanna was a 10 -year-old female with an autism diagnosis who spent approximately $30 \%$ of the school day in general education settings. She communicated using gestures, limited verbal speech (at low volume and limited intelligibility), and a communication book with line-drawn graphic symbols.

| Aimee $^{\mathrm{a}}$ | A (fourth) | 10 | Indian American | F | 4 | 3.5 |
| :--- | :--- | ---: | :--- | :--- | :---: | ---: |
| Anna | A (fourth) | 9 | Black | F | 4.5 | 4.5 |
| Caty $^{\text {a }}$ | A (fourth) | 9 | White | F | I | $<$ I |
| Tashonda | A (fourth) | 9 | Black | F | I | $<$ I |

Sara's Friends
Sara was a 9-year-old female with diagnoses of intellectual disability and a seizure disorder who spent approximately $20 \%$ of the school day in general education settings. She communicated using gestures, vocalizations, fewer than five spoken words, and a QuickTalker23 speech-generating device.

| Ellie $^{\mathrm{a}}$ | A (fourth) | II | White | F | 2 | 2 |
| :--- | :--- | :---: | :--- | :---: | :---: | :---: |
| Keith $^{\mathrm{a}}$ | A (fourth) | 9 | White | M | $>4$ | 4 |
| Saleena $^{\mathrm{a}}$ | A (fourth) | 9 | Black | F | $>4$ | 4 |

Note. Years known reflects the number of years the participant reported knowing the child with complex communication needs. Years of friendship reflects the number of years the participant reported they considered themselves to be friends with the child with complex communication needs. $\mathbf{F}=$ female, $M=$ male.
${ }^{\text {a Peer participated with the child with complex communication needs in a peer network intervention (Biggs et al., 2018); Jeremy's }}$ other friends informally joined peer network sessions on occasion, but Joanna's other friends were not associated with the peer network in any way.
complex communication needs as teachers, consultants, and researchers. Related to researcher positionality, we approached this work with the belief that friendship is important for all children and with interest in understanding ways to promote equal-status relationships between children with and without disabilities. Our experiences and knowledge of prior research also led us to anticipate that children would likely perceive aspects of their friendships with classmates learning to use aided AAC differently than their relationships with friends who used verbal speech.

Analysis occurred in four phases. In Phase 1, we each independently read all transcripts and wrote reflexive memos about salient concepts within and across interviews. We then met to discuss the data and generate an initial list of concepts that might be used for coding. This initial list included 30 unique concepts and corresponding reflexive memos. Phase 2 consisted of open coding. We each independently read a single transcript using a line-by-line approach. While reading, we divided the interview transcript into smaller excerpts, each

Table 2. Main Topic Questions Within the Interview Protocol.

| Topic questions about self-selected friend | Topic questions about friend with complex communication needs |
| :---: | :---: |
| I. Tell me about one of your really good friends. I. Tell me about being friends with [name]. |  |
| 2. When did you become friends? |  |
| 3. What do you like to do together? |  |
| 4. What do you like about being friends with [name]? |  |
| 5. Is there anything that can be hard about being friends with [name]? |  |
| 6. What helps you work through things that are hard? |  |
| 7. Why are you friends with [name]? |  |
| 8. Do you think you will be friends when you get older? |  |
| 9. What do you think it means to be a good friend to [name]? |  |
| 10. Does anything else come to mind when you think about being a good friend? | 10. Is there anything else you think other people should know about being friends with [name]? |

Note. Interview questions were asked first for a self-selected friend and then for the friend with complex communication needs. Most questions were asked in both instances, as indicated.
of which reflected an idea the speaker was conveying. Each excerpt was highlighted in Dedoose and notated with one or more codes. As we did this, each new excerpt was constantly compared with all previously coded data to determine whether it represented a new concept or should be considered as part of an existing code. We regularly wrote reflexive memos about the convergence and divergence of excerpts within and across codes. After independently coding a set of one or two transcripts, we met to discuss and reach agreement on codes for each excerpt. As we repeated this process for each transcript, we continuously updated an electronic codebook that contained (a) the name of each code, (b) a corresponding description with examples from the data, and (c) memos about the code. A separate codebook file was created each time we made changes to create a clear audit trail of decisions. By the end of Phase 2, the codebook included 41 codes with corresponding descriptions and memos; these codes were linked with 3,975 applications of codes within the transcript excerpts. Phase 3 consisted of generating reports of all excerpts. These reports sorted excerpts by code so that we could independently reread all applications of a code and consider connections across codes. We then met together to reduce data into conceptual categories and subcategories. Phase 4 consisted of theory generating. We reviewed and refined each category and subcategory to develop its properties and dimensions, the conditions that influenced it, and the ways in which it influenced other categories. During this process, we consistently revisited data to evaluate our hypotheses about connections among categories. We used diagramming as a tool to assist in formulating ideas, refine our conceptualization of the emerging theory, and communicate the theory in a clear manner (Buckley \& Waring, 2013).

## Credibility and Trustworthiness

We used several strategies to support credibility and trustworthiness (Brantlinger et al., 2005). First, the quality of qualitative data analysis is strengthened through repeated, systematic searching of the data. We used an iterative approach with four phases of repeated coding to ensure richness and depth as we generated theory. Second, we developed an audit trail to document both raw data (e.g., interview transcripts) and memos in the codebook and in Dedoose. Third, we used a collaborative approach during which we each independently coded data and then subsequently reanalyzed and made decisions together. Fourth, we searched for negative cases to refine each aspect of the emerging theory. Fifth, we corroborated and confirmed interview findings with observational anecdotes. The first author had sustained presence in the schools across several months before and during data collection, and both researchers regularly discussed her observations when making decisions about codes during analysis meetings. Finally, we carefully reflected on our own positions and beliefs throughout data collection and analysis to articulate the ways in which our positionalities influenced the research.


Figure I. Conceptual model of friendship development across relationships with friends with and without complex communication needs.

## Findings

Two main sets of findings addressed our research question. First, we developed a conceptual model depicting children's experiences of friendship development across their relationships (see Figure 1). Second, we identified three interwoven intersections between children's experiences of friendship and disability. We first describe the conceptual model and then address its different intersections with disability. We identify when children talked about their different friends by identifying the friend's primary communication mode in parentheses (i.e., AAC or speech).

## Conceptual Model of Friendship Development

The model of friendship development was "unified" in the sense that the same major conceptual categories were present across both relationships that children discussed (i.e., a friend with and without complex communication needs). Figure 1 illustrates the way each conceptual category interacted within the model. Specifically, (a) proximity functioned as the foundation or entry point to friendship, (b) friendships were characterized by varying depths of friendship going from affinity to intimacy, (c) several key agents served as active mechanisms to help friendships form and/or deepen, and (d) a continuum of help care existed across relationships although this presented differently depending on the depth of the friendship.

Proximity. Children referred extensively to the role proximity played as the entry point or essential foundation to friendship. Proximity involved being physically located near one another through access to shared environments, such as going to the same school; being assigned to the same classroom, recess time, or bus; or being enrolled in the same extracurricular activities (e.g., dance classes). Many children also talked about how proximity would affect friendships when they go to middle school. When Tashonda was asked whether she thought she would be friends with Joanna (AAC) for a while, she said, "Yeah, if we go to the same
middle school, probably . . . Because she'll end up in my class or close to my class." Other children (e.g., Aimee, Aiyesha, Ciara, Desirae, Maddie, Sofie, and Zara) predicted it would be very difficult to remain friends if they would be in different schools or classes in middle school.

Depths of friendship. One source of variation across relationships was the depth of friendship, depicted in Figure 1 as color gradients ranging from affinity for one another at the outer circles and intimacy with one another in the inner circles. All friendships seemed to form based on affinity for one another, and some of these friendships then deepened to become more intimate. Most children described their friendships as involving elements of both affinity and intimacy. Affinity for one another was characterized by children's enjoyment and admiration of one another, shared interests and characteristics, and positive perceptions, including of the friend's kindness. When asked why she was friends with Joanna (AAC), Anna said, "I think because Joanna is my trait [like me], obviously. . . Yes, she's amazing. Um, so she's kinda, she's, she's humorous. She's funny." Sophie described Kara (speech), saying, "She's nice . . . like, when I fell down, she helped me up." Similarly, Stephanie talked about how her positive perceptions of Grace (AAC) made her want to become friends, saying, "I thought she looked kind." At inner depths, intimacy built on affinity through deep understanding, honesty and trust, and loyalty and commitment. Saleena talked about trusting Michelle (speech): "She's nice to me and she doesn't talk behind my back and a lot of stuff." Aiyesha described how loyalty and commitment contributed to her intimate friendship with Iris (speech):

> She's really nice to me. And, like, if we have a really big issue going on, we're still friends. We usually never split up . . She's friends with other people too, but, like, I'm one of her best friends and, um, she like, she hangs around me a lot. Everywhere I go, she usually goes. When we use the bathroom, she usually picks me or I pick her.

Iris herself described having an intimate friendship with Jeremy (AAC), saying, "Well, [my teachers] should know that it's a really, a strong friendship that we have, and, he's just around, like, more than my other friends. And he can, just, I feel safe around Jeremy for some reason."

Key agents influencing friendship development. Several key agents served as means both to form and to deepen friendships. They also sometimes presented challenges. These agents are depicted in Figure 1 as arrows to highlight their active roles in friendship development.

Sustained, repeated engagement. Spending time engaged together and in shared activities-particularly within the context of play-was central to helping friendships form and deepen. This key agent moved beyond mere proximity because it was about actually doing things together rather than simply being in the same spaces. Desirae and Ciara had similar stories about becoming friends with Jeremy (AAC), which Desirae simply described as follows: "We just started playing with each other." Similar to other children, Saleena talked about how one of her favorite things was to play tag both with Michelle (speech) and with Sara (AAC). For friendships to form and deepen, children talked about the importance of repeated engagement across multiple contexts. Within the school day, some children (i.e., Aimee, Anna, Daniela, Ellie, Iris, Saleena, Stephanie, Tashonda, and Zara) talked about spending time together within academic settings, but most emphasized doing things together during social times (e.g., free time in the classroom, recess, and lunch). Spending time doing things together outside of school was also important to friendships, including after-school activities, birthday parties, sleepovers, and playdates.

Communication and interaction. Across relationships, communication was important both to initially form friendships (e.g., invitations to play, waving, saying "hi," and writing a note) and to help friendships deepen and strengthen. For example, Keith shared about Sara (AAC), "We're good friends because I talk to her." Although their interactions included a lot of different ways to communicate (e.g., talking, writing notes, phone calls/texting, and AAC), children readily used the word "talking." This was true even when they described interactions that relied on nonverbal communication, such as gestures, body movements,
vocalizations, and signs. Saleena described communicating with Sara (AAC) as "easy," saying, "because she probably can talk without her talker [speech-generating device] . . . She doesn't really use her talker to communicate with me. She uses her mouth [imitated vocalizations Sara often made] and then [imitated Sara's gestures]."

Learning about one another. Children often talked about the importance of gaining new or deeper insight about their friend, such as learning what their friend likes. Caty talked about this with both Carrie (speech) and Joanna (AAC). She was looking forward to Carrie getting a phone, saying, "I think maybe [when she gets a phone] I'll get to know Carrie more and about her." About Joanna (AAC), she shared, "I haven't really like known her that much . . . and getting to know her more, I think that really helped me open up as a friend with her." This also involved children learning to do things to better interact or get along with their friends, such as learning to be patient or communicate more effectively. For example, both Maddie and Daniela shared that learning more about Grace (AAC) helped them become better friends with her. Daniela shared, "It's very easy to understand [Grace] when you start getting to know her . . . when you get on and on and you know her better, then you would know what she'd be saying." Learning about one another was closely connected with other key agents, particularly because it often occurred through these other vehicles (e.g., interacting and spending time together and getting advice or support from others). Learning about one another also had a unique role in helping children with challenges in a relationship, such as resolving fights and disagreements or navigating differences related to things such as play or communication.

Fights and forgiveness. Relative to other key agents, fights and forgiveness was unique in that it was only discussed in the context of relationships with friends who used verbal speech. Conflict included disagreements (e.g., not wanting to play the same game or by the same rules and difficulty sharing), misunderstandings and miscommunication, and teasing or other instances where feelings got hurt. Although children talked about interpersonal conflict as a challenge, most conveyed that disagreements were quickly resolved. For some, educators and parents played key roles in helping resolve conflict (e.g., facilitating conversation and offering advice).

Personal change. Friendship development was also influenced by all the different ways each child grew and evolved over time. Intentional change, such as to become more patient or understanding with a friend, was often a result of self-reflection. For example, Caty reflected about Joanna (AAC),

Sometimes she does something funny that she doesn't know she's doing. And you can laugh, but you feel like "wait, am I making fun of her?" . . . I definitely did that once and I was like "wait, is that right?"

Children also anticipated they and their friends would naturally change over time, particularly looking ahead to middle school. Even within the same participant, this was often discussed differently across friendships. For example, when talking about her friendship with Aiyesha (speech), Iris shared, "I know we'll start going through different phases in our lives, and we might split up . . . We'll sort of grow out of one person and become someone else." However, when she talked about Jeremy (AAC), she said, "I know I'll go through my phases and Jeremy will go through his phases, but we will still be friends."

Peers, educators, and family members. Other peers were often powerful players in friendship development, particularly in initially becoming friends. For example, Ciara shared,

I became friends with [Jeremy (AAC)] when I met Iris . . . It started when we were at recess and I didn't really talk that much with him because I didn't really know him, but Iris wanted to play with him, so I just went ahead and went with her . . I started to like being his friend, so then I just wanted to be friends with him.

As children talked about their friendships, they had less to say about adults' roles than they did about other key agents. However, there were still salient examples of how adults worked to facilitate friendship
development through the different key agents. For example, parents, teachers, and paraeducators helped children learn about one another, served as points of contact to establish relationships, offered advice, helped navigate challenging interactions and/or conflict, supported opportunities for shared engagement, and helped children make meaning of disability. Three children (i.e., Keith, Saleena, and Stephanie) had nothing to say about the roles of adults in helping them be friends, even when asked explicitly in follow-up probes to the main questions (e.g., "Do adults ever help you when thing are hard?")

A continuum of help care. Children described acts of giving and receiving help as a common part of their friendships. Figure 1 illustrates a continuum of help (overlapping the edges of affinity) and care (overlapping intimacy). Specific actions of help or care were often similar and it was not the acts themselves that were distinct. Instead, children provided insight into ways their intentions behind these actions differed, based on the extent to which they came out of a place of intimacy within the friendship. Within more intimate relationships, caring actions were efforts to provide for a friend's needs that came from a natural outflow of love, deep affection, and understanding. For example, Daniela explained how Sofie (speech) cared for her: "Outside, sometimes I would be lonely and just walk around the fence and she would come over and say, 'Do you wanna come play with me?'" In less intimate relationships, help was offered out of social obligation, to be polite or kind, or in response to classroom demands (e.g., help using computer). At the extreme end of this continuum - which seemed to present in only one friendship between Anna and Joanna-help was benevolent but completely unilateral. Help in this friendship was also different than in the other relationships because it characterized much of the entirety of the friendship, rather than only part. For example, when asked why she wanted to be Joanna's friend (AAC), Anna explained, "Well, I knew [Joanna] had a disability and I just wanted to help because when I get older, I probably wanna help disability kids all around the world." In contrast, Caty talked about friendship coming first, saying, ". . . if you want to be friends with [Joanna], you don't do it by helping her or anything like that. When you start to become friends with her, then you can do that." Although the friends with complex communication needs were more often described as receivers of help/care, three children (i.e., Iris, Stephanie, and Zara) described instances of receiving help or care from their friend. For example, Iris said that Jeremy (AAC) "is caring for me too." When asked to share an example, she talked about how he has blocked basketballs from hitting her when she sits down with him on the playground.

## Intersections with Disability

As depicted in Figure 1, the core substance of how children talked about forming and deepening friendships was similar across relationships, regardless of a friend's disability status or means of communicating (speech or AAC). However, children did perceive friendships with classmates with complex communication needs as being different. Specifically, the ways children experienced, talked about, and made meaning of disability interacted with their experiences of friendship in varied ways. We came to think of these intersections with disability as being like an overlay or filter that colors the experience of friendship without changing its substance.

Children's daily experiences. Children perceived differences related to engagement and play, communication and interaction, and their friend's behavior in their day-to-day experiences with their friend with complex communication needs.

Engagement and play. Most children discussed how engagement and play felt different relative to interactions with other friends. Desirae shared, "Jeremy (AAC), like he can't really do the exact same thing as I would probably do with my other friends." For some, finding ways to play in mutually enjoyable ways posed challenges. Other children with more intimate friendships still talked about this as a difference, but not necessarily as a difficulty. For example, Aiyesha talked kindly about playing games with Jeremy (AAC) that she would not have wanted to play with other friends (e.g., singing "Old McDonald") because she knew it made Jeremy happy. She and Jeremy also had activities they both enjoyed doing together, such as playing tag.

Communication and interaction. Children emphasized different forms of unaided AAC (e.g., gestures and body movements) more than aided AAC when they talked about "talking" with their friend who had complex communication needs. Yet, aided AAC, particularly speech-generating devices, seemed to have a certain appeal. Ellie, a friend of Sara (AAC), frequently said things like, "I like her talker. A lot." Stephanie talked about it this way: "I think it's fun [to be Grace's friend] because you really get to hang out with a person that like can't really talk but they can do signals." Many children shared that communication was particularly challenging at the beginning of their friendship because they "couldn't really understand" what their friend tried to say. They described communication becoming easier over time. This was most often because children learned to better understand their friend's idiosyncratic communication forms, but sometimes children attributed it to their friend's improved communication skills. For example, Stephanie found it easier to be better friends with Grace (AAC) as "she's done better like with her [signs] and like pressing the buttons on her iPad."

Children also described differences (and sometimes challenges) in other aspects of communication and interaction, such as their friends' receptive and pragmatic skills. For example, Ciara and Desirae said that it sometimes "takes [Jeremy (AAC)] a little while to understand something" or that "he doesn't understand everything we understand." Anna discussed feeling uncomfortable when Joanna (AAC) did not pick up on social cues when interacting with a boy that she liked. Nearly all children described ways of navigating these differences, including seeking advice from teachers or paraeducators and using different interaction strategies (e.g., wait time, rephrasing, and using aided AAC as a shared means of communication). Desirae articulated that being friends with Jeremy (AAC) "feels a little bit different," but that it was "a good thing and a challenging thing because it's challenging to have to explain things to him, but at the same time it's really kind of easy."

Behavior. Children also described differences in their friend's behavior (e.g., restricted or perseverative interests, body movements). For some, like Maddie, these were perceived as challenges: "Most of the time Grace (AAC) doesn't really talk to me. That's why it's a little hard and it's kinda weird sometimes because all she wants to do is swing." Other children did not seem to experience these differences as challenges. For example, Iris spoke positively about when she first got to know Jeremy (AAC), even though she perceived some of his behaviors as being different: "He was really himself around me. And I bet me and him would, I thought we would be great friends at the first start."

Children's disability-related discourse. The nature of being friends also intersected with how children talked about disability-and how others talked about disability with them. Children seemed to find it difficult to talk about disability. Many children's responses suggested that they may have felt it was bad to talk directly about differences between themselves and/or their other friends and their friend with complex communication needs. For example, many children who were quite articulate in other places of the interview had lengthy ( $10-20$ s) pauses when asked follow-up questions related to these topics. Some children even articulated that it was difficult. When talking about Grace (AAC), Daniela at one point responded, "I don't know. I'm still thinking . . . Um, this is the first time that I had a special need person as a friend. And so I might have trouble talking." Children also seemed to be influenced by whether and how others talked about disability with them, including teachers, paraeducators, their own parents, and their friend's parents. The presence and impact of conversations with adults about disability was varied across children. Although many never discussed having such conversations (even when asked directly about the influence of different adults), others did. For example, Iris talked about interacting with both Miss Bailey, a paraeducator, and Jeremy's (AAC) mother:

> Well, so it was the first day of school and I sat by Jeremy and his mom told me that he had special needs, and I'm like okay. And I didn't really know what a special needs was at first until he started acting weird and I'm like that's strange. But then later I sort of knew a little more about him, I'm like oh, now I sorta understand him a little more.

Children's mental constructs of disability. How children made meaning of disability also intersected with their friendships. Many children's responses suggested they looked for "sameness" but wrestled with making sense of differences when they thought about their friend or about disability. Caty shared,
> . . . but Joanna (AAC) and Carrie (speech) and Ariel (speech), they're just the same. And they're, no matter if Joanna's different, I see her as just a friend, and so I think definitely that it's kind of different, but maybe similar.

Friendships seemed to shape the way children thought about disability. For example, Daniela talked about how her views were influenced by her emerging friendship with Grace (AAC):

> I never had a special need person as a friend before. And I would sometimes, I would think how it would be . . . Just because she's special doesn't mean she can't be a human being. And just because she's special doesn't mean she can't play or she might not like things. Just because she's got special needs doesn't mean she can't do really anything.

In addition, how children made meaning of disability also seemed to influence the nature of their friendship. When children's mental constructs of disability focused primarily or exclusively on areas of need/deficits, relationships with the friend learning to use AAC were typically less intimate and characterized predominately by "helping." Conversely, children who focused more on their friend's strengths tended to have more intimate friendships. An example was Aiyesha, who talked about her friendship with Jeremy (AAC) this way: "Not all my friends need special care, so he's different than them. But he's really fun and artistic [his strengths ] . . Not everyone's the same because not everybody's good at the same thing."

## Discussion

Friendships are important to the development and well-being of all children with and without disabilities (Eisenman et al., 2017; Rubin et al., 2009). Using children's own perspectives as a lens to examine friendship development can offer important insight into how to promote friendships in schools. The purpose of this study was to study friendships in middle childhood by exploring the ways elementary-age children thought about, experienced, and talked about friendship with friends who had and who did not have complex communication needs. Guided by grounded theory methods, we generated a single framework to conceptualize friendship development across children's relationships with friends with and without complex communication needs (see Figure 1). We found that this model was best considered to be "unified" in the sense that major conceptual categories were similar across these different relationships (i.e., proximity as the entry point to friendship, varying depths of friendship, several key agents as active mechanisms to help friendships form and/or deepen, and a continuum of help care). Our findings also provided insight into ways friendships with classmates with complex communication needs were colored by how each child experienced, talked about, and made meaning of disability.

As in earlier research, we found the potential for, and existence of, reciprocal friendships between children and their classmates with complex communication needs (Anderson et al., 2011; Rossetti, 2011; Staub et al., 1994). Furthermore, we found robust commonalities across children's perceptions of the core dynamics involved in friendship development, regardless of their friend's disability status. The conceptual model illustrates these commonalities (see Figure 1). With the exception of fights and forgiveness as a key agent, all of the major categories and subcategories were present and influenced one another in largely the same way across these different relationships. Within the context of shared environments (proximity), friendships formed and deepened through several key agents and based on children's affinity for one another-having perceptions of shared interests and characteristics, enjoying being around one another, and admiring the friend or seeing them as being kind. The importance of shared environments, particularly at school, as clear precursors to friendship is consistent with other research findings focused on friendships between children with and without developmental disabilities (Anderson et al., 2011; Rossetti \& Keenan, 2018; Staub et al., 1994).

In the present investigation, some children's friendships were characterized primarily by affinity, whereas other children described different aspects of intimacy in their friendships, such as honesty, trust, loyalty, and deep knowing or understanding of the friend. Most of the friendships - both with friends who used AAC and those who used verbal speech-seemed to involve aspects of both affinity and intimacy. It is important to consider this finding in light of the age of our participants because children during middle childhood are
gradually developing key social and emotional skills for forming and maintaining more intimate peer relationships (Gifford-Smith \& Brownell, 2003; Rubin et al., 2009). Thus, it may not be surprising that we found variation in how children described this aspect of their different friendships, given that they each may have been at different places in this development process. Of note, however, was the finding that variation in the nature of affinity and/or intimacy across friendships seemed to be based on many other factors beyond the disability status of the friend. Although not all of the friendships with classmates with complex communication needs were characterized by intimacy, many were.

In research to date, friendships between children with and without developmental disabilities have been described and compared with characteristics of friendships between children who do not have disabilities, and researchers have found that these friendships may "look different" (Rossetti \& Keenan, 2018, p. 204). Specific to friendships involving a child with complex communication needs, peers may experience these friendships differently because of differences in communication and interaction, shared time, engagement and play, and navigating helping roles when the friend requires support (Anderson et al., 2011; Østvik et al., 2017; Staub et al., 1994). Furthermore, children in the present study described fights and forgiveness only in relationships with friends who used verbal speech to communicate. Learning to manage conflict shapes the nature of friendships and is influential to children's social-emotional development. Therefore, this difference will be important for researchers to investigate further in the future.

To our knowledge, the investigation presented here is the first to explicitly explore similarities and/or differences in children's perspectives of the process of developing these friendships by asking children to talk separately about two different relationships-one with any friend they chose and one with a friend with complex communication needs. Like researchers before us, we found that friendships were colored by each child's notions of and experiences with disability, and that these relationships felt different to children in a number of ways. However, we also found striking similarities in how children talked about how their friendships formed and deepened, regardless of the friend's disability status. These similarities reveal important avenues through which researchers, practitioners, and families can explore ways to promote and support friendships in middle childhood.

We gained insight into three intersections of this model with disability: (a) children's daily experiences, (b) their disability-related discourse, and (c) their mental constructs of disability. In more intimate friendships, children did not seem to focus on deficits when they talked about differences in their friend's engagement and play, communication, or behavior. Although differences were still recognized, the responses of children within more intimate friendships suggested they saw their friends as individuals with unique personalities comprised not of their disability but of their likes and dislikes, feelings, and strengths. It is possible that such perceptions are important for the development of intimate friendships. That is, it may be particularly challenging for relationships to be more than "helping" relationships if children without disabilities hold mental constructs of disability based solely on deficits, do not know how to make sense of differences, or see their classmate's identity as primarily based on areas of need. Future research is needed to further investigate whether avenues for friendship development are strengthened by helping children see the strengths, interests, personality, and individuality of their classmates with disabilities and to understand disability as a part of human diversity (Eisenman et al., 2017).

## Limitations

Several limitations are important to note. First, theoretical sampling is considered to be the best approach to developing and refining a theory that is "grounded" in the data (Dey, 1999). We could not sample participants and analyze data in an iterative fashion because of our approved recruitment process and timeline (i.e., data were collected at the end of the school year). We managed this limitation by ensuring that we reached sufficient saturation in the conceptual depth of each category, which included ensuring that multiple examples were evidenced across a range of participant sources (Dey, 1999; Nelson, 2016). However, iterative analysis and data collection could have further strengthened trustworthiness through additional opportunities to identify confirming and/or disconfirming evidence. Second, we focused specifically on middle childhood and only one participant and one of the friends with complex communication needs were male. These characteristics are
important to recognize in interpreting findings. Future research is needed to understand similarities and differences related to age and gender in experiences and perceptions of friendship development. Third, there were significant differences in the percent of time the students with complex communication needs were included in general education settings (i.e., ranging from $20 \%$ for Sara to $70 \%$ for Jeremy). We did not directly investigate the influence of these variations on specific aspects of friendship development, and this represents an important area for future research. Fourth, and also due to the timing of our data collection, we could not conduct member checking during or after data analysis. Opportunities to follow-up with participants to validate the accuracy of and expand on our interpretations could have strengthened the trustworthiness of our findings. Fifth, we focused specifically on exploring the experience of friendship and friendship development through the perspectives of these children. Although we did corroborate interview responses with observations from our sustained presence in both schools, additional sources of data (e.g., interviews with educators or parents and interviews with both members of the friendship) would have expanded the lens through which these experiences might be understood. As the four children with complex communication needs did not have reliable means of symbolic communication at the time of the interviews (i.e., using signs, verbal speech, or aided AAC), it is difficult to envision how we could have best elicited their perspectives. This represents an important area for future innovation and research. Finally, we sampled participants who were friends with four students who took part in a peer network intervention (Biggs et al., 2018). Although not all of the children participating in this study were part of the peer network intervention (see Table 1), this factor may have made friendship development different for some dyads than if this intervention had not occurred.

## Implications for Research and Practice

We found that aspects of friendship development are interconnected and interdependent. At a practical level, it may be unlikely that any intervention effort focused on a single aspect (e.g., proximity, communication, and interaction) will be effective to facilitate friendship development between students with and without complex communication needs, unless careful attention and effort is also aimed at the other components. Indeed, conclusions drawn from existing research literature highlight the need for multifaceted interventions to enhance social interactions and relationships, specifically attending to student-related considerations (e.g., communication skills, social skills, and behavior), peer-related considerations (e.g., attitudes and interaction styles), adult support-related considerations (e.g., paraeducator support), and environmental considerations (e.g., shared learning and social opportunities; Biggs \& Carter, 2017). Therefore, as we highlight implications for practice from specific components of the model, we underscore the need for further research on the effects and feasibility of both integrated multicomponent intervention approaches and more focused intervention efforts.

The critical role of proximity as the entry point to friendship may not be surprising, but it nonetheless has important implications for inclusive education. Children with and without disabilities are unlikely to become friends simply because they are in the same physical spaces, but it is incredibly difficult for friendships to develop without access to shared environments (Staub et al., 1994). Policy statements on the need for effective inclusion specifically cite the development of friendships with peers as one of several important outcomes (U. S. Department of Health and Human Services \& U. S. Department of Education, 2015). Yet, limited access to shared social and academic settings remains a pervasive barrier to friendship development for children with complex communication needs (Biggs \& Carter, 2017; Østvik et al., 2017).

If proximity is essential but not sufficient for children to form and deepen friendships, it is critical to attend to the nature of supports and instruction used within these settings (e.g., peer supports, paraeducator supports, and learning arrangements). The identified key agents point to important areas to address within inclusive settings, such as facilitating engagement in shared social and learning activities, supporting communication and interaction, and promoting ways for children to better get to know one another. Findings related to the roles of adults (e.g., educators, service providers, paraeducators, and parents) also have important implications. Although we observed a number of important roles adults had in supporting interactions and relationships (e.g., establishing proximity and supporting shared engagement), children had surprisingly
little to say about the roles of adults in their friendships and seemed to see these roles as existing more in the backdrop than the forefront. It may be particularly important that adults do actively work to support social interactions and relationships, but that they do so without inserting themselves directly into the "separate social world" of children who are friends (Gifford-Smith \& Brownell, 2003, p. 236). Among other adult roles, the role of general educators in fostering classroom cultures of acceptance and belonging for all children is an area in particular need of further research. Some researchers have referred to the role of a teacher through the metaphor of an "invisible hand" (e.g., Farmer et al., 2017, p. 177), suggesting teachers have great potential to unobtrusively influence the classroom social context, including children with complex communication needs who may be at risk of social isolation.

Finally, there are a number of important implications for practice and future research related to the intersections with disability. Although our field has substantial and growing information on interventions to enhance social-related outcomes for children with developmental disabilities, these interventions have largely focused on addressing communication and social skill deficits. Less attention has been given to efforts focused on children's environments (e.g., support approaches, expectations, and behaviors of peers and adults) that might enhance social-related outcomes, including friendships. Inclusive education may be optimized to support the development of long-standing, close, and affectionate relationships between children with complex communication needs and their peers when adults provide facilitative but not intrusive supports to help peers navigate these different intersections with disability. Future research is needed on the impact of conversations, formal curricula, and other educational experiences on children's perceptions of difference and conceptualizations of disability, and on their interactions and relationships with classmates with complex communication needs. When limited opportunities to become friends (e.g., limited proximity, engagement, and interaction) are paired with silence in schools around disability, peers may be more likely to have perceptions of their classmates with complex communication needs primarily focused on areas of need, rather than their strengths and individuality. In the present investigation, children's experiences and conversations seemed to have an important role in shaping the nature of the bidirectional influence between their experience of friendship and the way they made meaning of disability.

## Conclusion

We present findings that add to evidence that all people, including children with complex communication needs, can form meaningful, reciprocal friendships (e.g., Anderson et al., 2011; Staub et al., 1994). Children who considered themselves to be friends with a classmate with complex communication needs shared their perspectives on the dynamics of friendship development, revealing robust commonalities across their different relationships. The unified model of friendship development highlights the promise for schools to actualize the potential for friendships between children with and without complex communication by attending to proximity alongside other key agents of friendship development, including communication and interaction, engagement in ongoing shared learning and social activities, and the facilitative yet "behind-the-scenes" roles of adults. The best efforts to promote friendships in schools-regardless of disability status and communication needs-may involve adopting a strengths-based perspective that purposively creates and supports opportunities for children to be with and interact with one another while helping them value one another's common humanity and individual diversity (Eisenman et al., 2017).

## Declaration of Conflicting Interests

The author(s) declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

## Funding

The author(s) disclosed receipt of the following financial support for the research, authorship, and/or publication of this article: Graphic services supported in part by EKS NICHD Grant U54 HD083211 to the Vanderbilt Kennedy Center for Research on Human Development.

## ORCID iDs

Elizabeth Erin Biggs (iD https://orcid.org/0000-0002-1056-5879
Melinda R. Snodgrass (iD https://orcid.org/0000-0001-7120-0243

## References

Anderson, K., Balandin, S., \& Clendon, S. (2011). "He cares about me and I care about him." Children's experiences of friendship with peers who use AAC. Augmentative and Alternative Communication, 27(2), 77-90. https://doi. org/10.3109/07434618.2011.577449
Biggs, E. E., \& Carter, E. W. (2017). Supporting the social lives of students with intellectual disability. In M. L. Wehmeyer \& K. A. Shogren (Eds.), Handbook of research-based practices for educating students with intellectual disability (pp. 235-254). Routledge.
Biggs, E. E., Carter, E. W., Bumble, J. L., Barnes, K., \& Mazur, E. L. (2018). Enhancing peer network interventions for students with complex communication needs. Exceptional Children, 85(1), 66-85. https://doi. org/10.1177/0014402918792899
Brantlinger, E., Jimenez, R., Klingner, J., Pugach, M., \& Richardson, V. (2005). Qualitative studies in special education. Exceptional Children, 71(2), 195-207. https://doi.org/10.1177/001440290507100205
Buckley, C. A., \& Waring, M. J. (2013). Using diagrams to support the research process: Examples from grounded theory. Qualitative Research, 13(2), 148-172. https://doi.org/10.1177/1468794112472280
Bukowski, W. M., Newcomb, A. F., \& Hartup, W. W. (Eds.). (1998). The company they keep: Friendship in childhood and adolescence. Cambridge University Press.
Bukowski, W. M., \& Sippola, L. K. (2005). Friendship and development: Putting the most human relationship in its place. In L. A. Jensen \& R. W. Larson (Eds.), New horizons in developmental theory and research: New directions for child and adolescent development (Vol. 109, pp. 91-98). Jossey-Bass.
Chung, Y. C., Carter, E. W., \& Sisco, L. G. (2012). Social interactions of students with disabilities who use augmentative and alternative communication in inclusive classrooms. American Journal on Intellectual and Developmental Disabilities, 117(5), 349-367. https://doi.org/10.1252/1944-7558-117.5.349
Corbin, J., \& Strauss, A. (1990). Grounded theory research: Procedures, canons, and evaluative criteria. Qualitative Sociology, 13(1), 3-21. https://doi.org/10.1007/BF00988593
Corbin, J., \& Strauss, A. (2008). Basics of qualitative research: Techniques and procedures for developing grounded theory (3rd ed.). SAGE.
Dey, I. (1999). Grounding grounded theory: Guidelines for qualitative inquiry. Academic Press.
Dunn, J. (2004). Children's friendships: The beginnings of intimacy. Blackwell.
Eisenman, L. T., Freedman, B., \& Kofke, M. (2017). Focus on friendship: Relationships, inclusion, and social wellbeing. In K. A. Shogren, M. L. Wehmeyer, \& N. N. Singh (Eds.), Handbook of positive psychology in intellectual and developmental disabilities: Translating research into practice (pp. 127-144). Springer.
Farmer, T. W., Dawes, M., Hamm, J. V., Lee, D., Mehtaji, M., Hoffman, A. S., \& Brooks, D. S. (2017). Classroom social dynamics management: Why the invisible hand of the teacher matters for special education. Remedial and Special Education, 39(3), 177-192. https://doi.org/10.1177/0741932517718359
Feldman, R. S. (2010). Child development (5th ed.). Pearson.
Franco, N., \& Levitt, M. J. (1998). The social ecology of middle childhood: Family support, friendship quality, and self-esteem. Family Relations, 47(4), 315-321. http://doi.org/10.2307/585262
Gifford-Smith, M. E., \& Brownell, C. A. (2003). Childhood peer relationships: Social acceptance, friendships, and peer networks. Journal of School Psychology, 41(4), 235-284. http://doi.org/10.1016/S0022-4405(03)00048-7
Hodges, E. V., Boivin, M., Vitaro, F., \& Bukowski, W. M. (1999). The power of friendship: Protection against an escalating cycle of peer victimization. Developmental Psychology, 35(1), 94-101. http://doi.org/10.1037/00121649.35.1.94

Holder, M. D., \& Coleman, B. (2009). The contribution of social relationships to children's happiness. Journal of Happiness Studies, 10(3), 329-349. https://doi.org/10.1007/s10902-007-9083-0
Kasari, C., Locke, J., Gulsrud, A., \& Rotheram-Fuller, E. (2011). Social networks and friendships at school: Comparing children with and without ASD. Journal of Autism and Developmental Disorders, 41(5), 533-544. https://doi. org/10.1007/s10803-010-1076-x
Kent-Walsh, J., \& Light, J. (2003). General education teachers' experiences with inclusion of students who use augmentative and alternative communication. Augmentative and Alternative Communication, 19(2), 104-124. https:// doi.org/10.1080/0743461031000112043

Kersh, J., Corona, L., \& Siperstein, G. (2013). Social well-being and friendship of people with intellectual disability. In M. L. Wehmeyer (Ed.), The Oxford handbook of positive psychology and disability (pp. 60-81). Oxford University Press.
Nelson, J. (2016). Using conceptual depth criteria: Addressing the challenge of reaching saturation in qualitative research. Qualitative Research, 17(5), 554-570. https://doi.org/10.1177/1468794116679873
Østvik, J., Balandin, S., \& Ytterhus, B. (2017). A "visitor in the class": Marginalization of students using AAC in mainstream education classes. Journal of Developmental and Physical Disabilities, 29(3), 419-441. https://doi. org/10.1007/s10882-017-9533-5
Østvik, J., Ytterhus, B., \& Balandin, S. (2018). Gateways to friendships among students who use AAC in mainstream primary school. Scandinavian Journal of Disability Research, 20(1), 92-101. http://doi.org/10.16993/sjdr. 51
Patton, M. Q. (2002). Qualitative research and evaluation methods. SAGE.
Raghavendra, P., Olsson, C., Sampson, J., McInerney, R., \& Connell, T. (2012). School participation and social networks of children with complex communication needs, physical disabilities, and typically developing peers. Augmentative and Alternative Communication, 28(1), 33-43. https://doi.org/10.3109/07434618.2011.653604
Rossetti, Z. S. (2011). "That's how we do it": Friendship work between high school students with and without autism or developmental disability. Research and Practice for Persons with Severe Disabilities, 36(1-2), 23-33. https:// doi.org/10.2511/rpsd.36.1-2.23
Rossetti, Z. S., \& Keenan, J. (2018). The nature of friendship between students with and without severe disabilities. Remedial and Special Education, 39(4), 195-210. https://doi.org/10.1177/0741932517703713
Rubin, K. H., Bukowski, W., \& Laursen, B. (2009). Handbook of peer interactions, relationships, and groups. Guilford Press.
Shonkoff, J. P., \& Phillips, D. A. (Eds.). (2000). From neurons to neighborhoods: The science of early childhood development. National Academies Press.
Staub, D., Schwartz, I. S., Gallucci, C., \& Peck, C. A. (1994). Four portraits of friendship at an inclusive school. Research and Practice for Persons with Severe Disabilities, 19(4), 314-325. https://doi.org/10.1177/154079699401900407
U. S. Department of Health and Human Services, \& U. S. Department of Education. (2015). Policy statement on inclusion of children with disabilities in early childhood programs. https://www2.ed.gov/policy/speced/guid/earlylearn-ing/joint-statement-full-text.pdf
Webster, A. A., \& Carter, M. (2007). Social relationships and friendships of children with developmental disabilities: Implications for inclusive settings. Journal of Intellectual and Developmental Disability, 32(3), 200-213. https:// doi.org/10.1080/13668250701549443
Williams, L. J., \& Downing, J. E. (1998). Membership and belonging in inclusive classrooms: What do middle school students have to say? Research and Practice for Persons with Severe Disabilities, 23(2), 98-110. https://doi. org/10.2511/rpsd.23.2.98

## Author Biographies

Elizabeth E. Biggs is an assistant professor of special education at Vanderbilt University. Her research focuses on effective practices to promote social and communication outcomes for children and adolescents with intellectual and developmental disabilities, particularly students with complex communication needs who use AAC.

Melinda R. Snodgrass is an assistant professor of special education at Illinois State University. She studies how fam-ily-school teams work together to plan supports for fully inclusive education, and issues of methodology in mixed methods and single case research, including social validity.

Date Received:
Date of Final Acceptance:
Editor-in-Charge:

April 17, 2019
September 28, 2019
Susan R. Copeland


[^0]:    'Vanderbilt University, Nashville, USA
    ${ }^{2}$ Illinois State University, Normal, USA
    Corresponding Author:
    Elizabeth E. Biggs, Vanderbilt University, Nashville, TN 37203, USA.
    Email: elizabeth.e.biggs@vanderbilt.edu

