

# Power-PALS (Peers Assisting, Leading, Supporting): Implementing A Peer-Mediated Intervention in a Rural Middle School Program

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## Abstract

Teaching staff at a rural middle school, with support from the National Professional Development Center on Autism Spectrum Disorders (NPDC-ASD), implemented a peer-mediated intervention. This program involved 4 learners with ASD and 18 typical peers divided into three groups that met over a semester as typical peers were taught about social skills and specific ways to support their classmates with ASD. While quantitative data were limited, outcomes suggest that Power Pals had a significant impact on school experiences and social interactions for both learners with and without ASD. Implications for future research and implementation in rural settings are discussed.

*Keywords: Autism spectrum disorders, peer-mediated strategies, middle school strategies*

Peer-mediated instruction and intervention (PMII) is an evidence-based practice that may be used to address communication and social impairments present in learners with autism spectrum disorders (ASD; National Professional Development Center [NPDC] on Autism Spectrum Disorders, 2007). Research has shown that children and youth with ASD have fewer opportunities than their peers without disabilities to engage in social interactions to practice and acquire key social and communication skills (Sanford, Levine, & Blackorby, 2008). Peer-mediated instructional approaches can address these concerns by teaching children and youth with ASD new social skills and increasing social opportunities within natural environments, often a primary goal of families. PMII can be implemented with pairs or small groups of learners across age ranges starting in preschool and extending through high school.

PMII has been shown to have positive effects across age ranges on academic, interpersonal, and personal-social development, and may be the most empirically

supported type of social intervention for learners with ASD (Bass & Mulick, 2007; Maheady, Harper, & Mallette, 2001; McConnell, 2002). In fact, research has shown that peer-mediated intervention strategies can support older students' learning of a variety of skills, particularly those related to social and communication functions (Blew, Schwartz, & Luce, 1985; Garrison-Harrell & Kamps, 1997; Haring & Breen, 1992; Thiemann & Goldstein, 2004). Furthermore, studies have highlighted how PMII can be used to teach adolescents how to use social-communication skills functionally in community-based settings (Blew & Schwartz, 1985).

In PMII investigations, researchers carefully and systematically taught typically developing peers ways of engaging children and youth with ASD in positive and extended social interactions in both teacher-directed and learner-initiated activities (English, Goldstein, Shafer, & Kaczmarek, 1997; Odom, et al., 1999; Strain & Odom, 1986). With older students, PMII strategies are intended to provide a network of support for learners

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with ASD to promote independence during interactions with others as well as to support the development of potential relationships, and hence natural supports, with peers (Carter & Hughes, 2007; Carter & Kennedy, 2006).

Studies have highlighted the importance of specific peer-mediated strategies that are particularly useful with adolescents with ASD. For instance, written-text cue cards and scripts assist both typically developing peers and students with ASD in using target social, communication, and academic skills (Thiemann & Goldstein, 2004). With these types of strategies, peers and learners with ASD are given the necessary information to use target skills successfully during interactions with others. As students with ASD gain increased independence, written-text cue cards and other supports gradually are withdrawn to allow for more natural interactions to occur. As suggested in the evidence-base on PMII, when peers are taught ways to interact with students with ASD through the use of these and other peer-mediated strategies, learners with ASD can gain meaningful access to peer relationships and the general education curriculum.

As our field increasingly focuses on the use of research-based practices, one qualifier often added is that the selection and subsequent implementation of evidence-based practices must be combined with professional expertise (Buisse & Wesley, 2006). As noted by Odom, Collet-Klingenberg, Rogers, and Hatton (2010), the careful applied use of evidence-based practices includes basing the choice of practice on the already identified learning needs of specific learners and implementing the practice with fidelity. The purpose of this paper is to describe the implementation of a peer mediated intervention in a rural middle school setting as a promising practice. Specifically, the process and initial results of one school district's efforts to implement PMII to fidelity with specific learner outcomes in mind are documented in order that other practitioners can be encouraged and supported to implement similar PMII practices in their schools.

## Powering Up (Designing the Program)

The setting is a rural school located in northeastern Wisconsin in a town with a population of around 1400 people. The school district has three schools, all located on the same campus, and enrolls just under 1000 students. The school was selected as a Wisconsin model site for the National Professional Development Center on Autism Spectrum Disorders (NPDC) in 2008-2009. The school was nominated for this position from within the Wisconsin Interagency Planning Group that monitored and informed NPDC work in the state. The school team was comprised of special and general educators and included teachers, paraprofessionals, support staff (e.g., school psychologist, speech and

language therapist), and a parent representative. The third author of this article provided team leadership for the district.

As part of their work with the NPDC, the team from the middle school identified 4 middle school learners with autism spectrum disorders (ASD). They used goal attainment scaling (Cardillo & Choate, 1994) to adapt three previously written measurable IEP goals for each learner. For each goal, staff selected at least one evidence-based practice that could be used to instruct or intervene with the student to aide him or her in meeting it. All 4 learners had social goals, so the team decided to implement PMII with the learners. Once the team selected PMII as the intervention, team leaders utilized materials from the NPDC detailing steps for implementing PMII (Neitzel, 2008a), researched various PMII materials and curricula, and created their own peer training materials based off of *The Sixth Sense II* (Gray, 2002). The team leaders formed groups and implemented Power Pals. Of the 4 students selected for the PMII program, 2 of the students were involved in a group together; thus three groups were formed.

## Methods

### *Participants*

**Target learners.** The students with ASD included 3 boys and 1 girl. Three of the students were in sixth grade and 1 student was in 7<sup>th</sup> grade. Brett, Michael, and Aaron were 12 years old, and Isabella was 13 years old during the implementation of Power Pals. All 4 of the target learners were able to communicate through use of verbal language. Strengths observed in all 4 students included the areas of memory (especially related to topics of interest, such as music, movies, or sports), visual abilities, and reading fluency. All were included in most academic chronological grade level courses in addition to receiving specialized instruction in the areas of reading and math. Communication was impaired related to understanding word meaning/vocabulary in all 4 of the learners, often providing a negative impact on both social interactions and academic performance. They all were fluent readers but struggled with understanding vocabulary, which impacted overall comprehension. Isabella regularly scored in the proficient range on local assessments in the area of reading while the boys all scored below grade level. Concerns with testing were noted with all 3 boys related to a high level of distractibility. All students scored below grade level on routine mathematics assessments. Executive functioning skills along with problem solving were noted as weaknesses for all 4 students. All 4 students were able to independently follow schedules throughout each day.

All 4 students were identified for participation in this project due to their need for support in the area of social communication along with developing and

maintaining relationships with peers. School staff, in consultation with parents, identified such needs during classroom observations where limited social interaction occurred with typically developing peers. In addition to meeting the individual goals for these target learners, school staff desired to implement a strong social program at the middle school aimed at improving social relationships and academic progress and creating a positive school climate.

**Typical peer groups.** General education classroom teachers selected peers for the PMII groups with the following criteria in mind. First, the peers had to have an interest in working in a group to support other students. Second, peers needed to have demonstrated positive interactions with the student in the past (according to teacher/staff perceptions) and to be in at least one regular education class with the target student. Many students volunteered for the project, and staff recruited a total of 18 students. Staff divided students into three groups, based on those with whom they had classes or with whom they were already friends. Group One had five members

and did their first training on January 9th. Group Two had six members and began meeting with their initial training on January 30th. Group Three, with seven members, also began meeting in late January with their initial meeting on January 23rd.

### *Intervention*

**Group meetings (format, content, frequency).** Once staff identified peers for the three groups, the peers met for a lunch period training of about 30 min, during which the lead staff person showed the peers a short PowerPoint presentation and led them in a discussion and activities about the “Sixth Sense” or “Social Sense” (Gray, 2002). During the first meeting, each of the teams created a list of specific ways that they could help their peer with ASD. Examples include a list of which team members could hang out with their peers at lunch on specific days, ways to invite them into conversations, ideas of activities that they enjoyed, and reminders to be patient in particular situations. See Table 1 for specific suggestions provided to Pals for each learner with ASD.

**Table 1.**

*Suggestions for Power Pals to Interact with Peers with AS*

Power Pals—Ideas to Help		
Michael & Aaron	Brett	Isabella
Hang out at lunch	After he starts to work, offer to help	Invite her over to your table at lunch or to your house on the weekend
Get to respond using multiple words	Help others learn to play games with him	Help her with distractions in class (e.g., ask others to stop making noises)
Instant Messaging/Invite to Club Penguin	Play Monster Jam during free time	Help her carry her things when her arms are full
Email	Teach him how to interact with others	Sign up on Club Penguin and connect with her there
Joke around with—help to understand humor	Help him & others find shared interests	Girls—talk about girl stuff with her (e.g., compliment her clothes or hair style, offer to help with her hair)
Ask questions (not yes/no)	Ask him to tell you about something he likes	Invite her to talk with you
Ask to play games	Do what he is doing	After she starts her work, offer to help
Be patient and supportive if student gets upset (help him calm down)	Ask him how his day is going	Isabella’s Power Pals—Ideas to Help

Subsequent meetings were shorter in nature and included discussions about how the target peers were interacting in and out of classes. Staff encouraged several students to be observant about when their classmate was not being included socially or needed classroom-based assistance. They prompted teams to brainstorm ways to include their friend and to promote inclusion by other students (i.e., those not involved in Power Pals but who were in classes or other activities with the target learners). Adult leaders included a regular education teacher, a speech and language therapist, and the Pupil Services Director for the district. During meetings, these leaders gave peers verbal reinforcement, suggestions for ways to include peers with ASD, and encouragement for interacting positively and proactively with other typical peers who were observed in school settings/activities to either not include their peers with ASD or be unkind in their interactions with these peers.

**Inviting learners with ASD.** The teams met nearly every week, and, after the first 4 weeks, they invited their peer(s) with ASD to join them. As described above, at the meetings leading up to including the target peers, staff met with the students and led discussions about ways in which their peers with ASD might be left out of conversations, misunderstood, or mistreated by peers and ways in which they, the Power Pals team, could support their peer and/or teach other typical peers better ways to interact with the learner with ASD. After the first four meetings, staff invited the learners with ASD to the Power Pals groups and told them that the groups were with their friends and that they would work on social stuff. Teachers, staff, and parents reported that all 4 learners with ASD (Brett, Isabella, Aaron, and Michael) were happy to be asked to participate in the Power Pals groups. The authors determined this via anecdotal reports.

**Implementation timeline.** Power Pal teams, including the learners with ASD, met weekly for the remainder of the school year. Brett's group and Aaron/Michael's groups met 11 times, while Isabella's group met only 7 times. Meetings were held during lunch for all groups once per week. An adult leader (teacher, speech-language therapist, administrator) led groups and fostered them as a fun and relaxing time to hang out with friends. The adult leader would initiate a discussion with the group (e.g., what makes a healthy lunch, sensory processing, how to have a conversation, eye contact, jokes or riddles), conduct an activity (e.g., identification and drawing of pictures of popular idioms, activities from *A is for autism F is for friend: A kid's book for making friends with a child who has autism* [Keating-Velasco, 2007]), or lead a game (e.g., play Go Fish with a Photo Feelings Fun Deck™ of cards). In addition to

reminding students about Power Pal meetings and facilitating the meetings with discussions and activities, the adult leaders gathered data regarding the impact of Power Pals on the students with ASD and typical peers. The authors also gathered information from parents regarding whether or not they were seeing a carryover of effects into their child's social life at home and in the community. The Power Pals groups marked the successful end to the school year with a field trip to watch a Timber Rattler baseball game in Green Bay.

## Results and Discussion

The benefits of the Power Pals program were many. While the authors collected little quantitative data, the data collected for 2 of the learners with ASD indicated some gains in regard to initiating social interactions (for both learners with ASD and their typical peers). Qualitative feedback from the students involved, along with that from teachers and parents, indicated that all thought the program was worthwhile, that there were benefits for both the learners with ASD and their peers, and that friendships were strengthened school wide. These outcomes are detailed in the remainder of this section.

### *Individual Learner Data*

The authors collected limited frequency data regarding initiations of interactions between peers and 2 of the target learners, Brett and Isabella. They collected data in a variety of classroom and during unstructured times throughout the school day, including during Literature Circle class time, during other classroom work time, between classes, at lunch, at recess, and before and after school. Observations ranged from 3 to 45 min in length (depending on the setting and activity). Please refer to Tables 2 and 3 for data for both Brett and Isabella. The authors did not collect data for Michael or Aaron. In the following description of the collected data, it should be noted that these are anecdotal data and that no causal inferences can be made.

For Brett, there were four observations conducted prior to the beginning of the Power Pals group instruction and three conducted after the peer groups began meeting. Two of the post peer group observations were done after Brett had joined the group. Pre- and post-baseline observation data were collected during class time as well as non-class times. Pre- and post-data as a whole (including both class and non-class data) showed that there were very few initiations by peers or Brett prior to the PowerPals program. Following formation of PowerPals groups and the initial training, initiations by peers and by Brett increased. Brett's initiations improved from a rate of .1 initiations per min in non-class activities during

**Table 2.***Initiation Data for Brett and Typical Peers*

Length of Observation	Setting	Activity	Frequency/Rate of Peer Initiations	Frequency/Rate of Target Learner Initiations
<u>Baseline</u>				
35 min	Classroom	Work time	0/0	0/0
15 min	Cafeteria	Lunch	4/.27	3/.2
45 min	Classroom	Discussion	2/.04	3/.07
25 min	Hall	Passing Time	0/0	1/.04
<u>Mean</u>	<u>Total</u>	<u>Total</u>	<u>Mean</u>	<u>Mean</u>
0 min	3 settings	4 activities	1.5/.05	1.8/.06
40 min	Class only	2 activities	1/.03	1.5/.04
20 min	Non Class	2 activities	2/.1	2/.1
<u>Intervention</u>				
3 min	Hall	Passing Time	2/.67	1/.33
15 min	Hall	Before School	8/.53	6/.4
10 min	Playground	Recess	7/.7	3/.3
<u>Mean</u>	<u>Total</u>	<u>Total</u>	<u>Mean</u>	<u>Mean</u>
9.3 min	2 settings (Non-class)	3 activities	5.7/.61	3.3/.35

baseline condition to .35 initiations per min following intervention. Interestingly, initiations by peers increased even more following implementation of the Power Pals groups. Peer data showed a rate of .1 initiations per min during non-class activities before the intervention and a rate of over .6 initiations per min following Power Pals. This suggests that this type of training can have a considerable impact on typical peers' comfort levels in interacting with their peer with ASD. These data are preliminary and do not show any causal relationship as the authors did not use an experimental design. They are, however, suggestive of social gains for both target learners and peers involved in Power Pals.

Observation data collected for Isabella were also across both class and non-class settings and activities. Initiations for both Isabella and her typical peers were high in some instances (i.e., Literature Circle) and may have been falsely elevated by teacher cues. At first, there were many prompts, models, and cues by Isabella's instructor (per teacher report). After a short

time, the students involved in the Power Pals group, as well as other peers in the general education setting, quickly picked up on the modified behaviors and verbal prompts and were much more accepting, working to include Isabella in the group discussions and giving her project tasks to complete. Isabella's average rate of initiations across both class and non-class activities showed only a small increase in rate (from .22 to .3) from baseline to intervention. Peer initiations also increased from pre to post Power Pal groups, with the most significant increase happening during non-class times. The rate of initiations of peers grew from .17 per min during baseline to .36 per min following intervention, suggesting that, as with Brett, the Power Pals groups could have an impact on the social behaviors of typical peers.

### *Benefits to Peers*

Toward the end of the school year, one of the staff leaders interviewed the group of peers who had participated in Power Pals to support Brett. This



**Table 3.***Initiation Data for Isabella and Typical Peers*

Length of Observation	Setting	Activity	Frequency/Rate of Peer Initiations	Frequency/Rate of Target Learner Initiations
<u>Baseline</u>				
45 min	Classroom	Literature Circle	23/.51	18/.4
45 min	Classroom	Work time	3/.07	2/.04
45 min	Classroom	Work time	2/.04	2/.04
10 min	Hall	Before School	1/.1	4/.4
45 min	Classroom	Literature Circle	30/.67	17/.38
20 min	Cafeteria	Lunch	4/.2	4/.2
<u>Mean</u>	<u>Total</u>	<u>Total</u>	<u>Mean</u>	<u>Mean</u>
35 min	3 settings	4 activities	10.5/.3	7.8/.22
45 min	Class only	2 activities	14.5/.32	5.75/.13
<u>Intervention</u>				
30 min	Classroom	Literature Circle	14/.47	9/.3
30 min	Classroom	Literature Circle	8/.27	10/.3
30 min	Classroom	Literature Circle	11/.37	7/.23
15 min	Playground	Recess	5/.33	3/.2
10 min	Hall	Before School	4/.4	5/.5
<u>Mean</u>	<u>Total</u>	<u>Total</u>	<u>Mean</u>	<u>Mean</u>
23 min	3 settings	3 activities	8.4/.37	6.8/.3
30 min	Class only	1 activity	11/.3.7	8.6/.29
12.5 min	Non-class	2 activities	4.5/.36	4/.32

interview was informal, set around a conference room table, and video-recorded. During the interview, peers spoke of many benefits of their involvement in Power Pals. They talked specifically about helping their friends with autism (though the students in the groups did not talk specifically about their friend having autism). They also shared how being involved had changed their perspectives. One young lady spoke about how she was now willing to give other students a chance when they were behaving badly and that she had learned more patience. Peers also talked about how being involved with groups had helped them learn to be more accepting of themselves.

*Friendships Formed*

Qualitative data suggest that all of the learners with ASD were positively impacted by involvement in Power Pals. For instance, Isabella and a peer in her group decided to run for Student Council President and Vice President. While they were not elected, teachers reported that they did a wonderful job on the campaign and learned a lot through the debating process that took place in front of the entire middle school student body. Following implementation of Power Pals, Isabella invited a group of girls to her birthday party. Her mother indicated that this was the first time this had happened and that she felt really

good about the new relationships that were developing. According to his mother, Brett's peer connections grew substantially as well and he appeared to be happier in school, often referring to his friends. Reports from typical peers in his Power Pals group discussed times when they "had Brett's back" when others were not being very kind to Brett. Michael and Aaron continued to develop peer relationships as well. Their mother reported that, after participating in Power Pals, they both joined Facebook and communicated with members of their Power Pals group frequently through this social media. In addition, some of their Power Pals friends initiated social activities outside of school, including birthday parties, getting together at each other's houses, and hanging out.

### *Parent Perspectives*

The authors did not directly interview parents during or following implementation of Power Pals. However, the school district is a close-knit community, and the Pupil Services Director maintains regular communication with many of the parents of students being served at the school. Parents of students who were involved in Power Pals sent unsolicited feedback regarding how the program was affecting their children. For instance, Isabella's mother talked about visiting school and seeing her daughter sitting with other students at lunch. She also spoke of Isabella beginning to show more concern for her appearance in regard to hairstyle and clothing choices. Her mother attributed this change in demeanor to Isabella spending more time with girls her age. Brett's mother attributed a number of changes as well during and since the Power Pals groups that were held when he was in the sixth grade:

The . . . peer support group is such a wonderful thing. One of my biggest fears for Brett was for him not to be accepted by his classmates, [and] the support group the (school) staff put together has made that fear go away. Before the group was put together, Brett hated going to school. The kids on the bus were picking on him, calling him names he didn't understand, making him do things he shouldn't [making him] think he would be accepted. Kids in school were taking his backpack and throwing it down the hall. He never said anything to any of the teachers cause he wanted that acceptance so bad. I talked with Julie on some of the issues Brett was having, hoping some of the issues would get resolved. Soon after I was asked if Brett would like to join the Power Pals group. Since joining, Brett loves to go to school, he has so many new friends. This fall, when he made a great play in football, he raised the football high with a confidence . . . a confidence he didn't have years ago. He came off the field and every one of his

teammates was high-fiving, slapping his helmet, and congratulating him...something that I don't think would have happened without this group, faculty . . . or his peers. Thank you (school)!!

### **Powering Forward**

Power Pals was so successful at the middle school that administration and teachers decided to continue it there with the idea that the friendships formed during Year One could be strengthened prior to students entering high school. In addition, middle school administration and staff worked with elementary school staff to begin implementation of the program with younger learners in the district. Currently, there are two peer support groups operating at the elementary school, supporting students with social needs.

Staff later formed a high school group in an effort to expand the positive outcomes of Power Pals at the middle school. This group included 4 typically developing students and 1 student with ASD. The high school group met weekly beginning in the first week of the school year. Activities included playing games, enjoying holiday parties with one another, organizing pot-luck lunches, and just hanging out. The group worked independently of adults; however, a special education teacher was assigned to the group to allow them to check in, assist with activity ideas and supplies, and share the activities in which the group engaged. Relationships developed in this group have since expanded beyond the lunch meetings. Students participating in the group have been observed interacting with one another in the hallways and events and appear to have developed a bond that will extend far beyond their high school years.

With the expansion of the peer support programs district-wide, the name for them has been changed to Power of Peer Supports (POPS). Staff believed that this title would allow for more universal movement from one level to another as Power Pals sounded a bit immature for the high school student body. Currently, there are over 50 students participating in the POPS program district-wide. The Pupil Services Director for the Bonduel School District (third author of this paper) summed up the experience:

This has been the most rewarding program that I have participated in thus far in my career. I have seen lives changed in so many positive ways for students in need of peer relationships. Students who were often targeted due to their social differences are now accepted and supported by their peers. Kind, caring, and compassionate were the characteristics sought after in typically developing peers at the beginning of this project. While these wonderful characteristics remain, additional traits now observed include

understanding, genuine friendship, and joy for all involved. I am incredibly proud of all of the staff and students who have made this program a success. Participating in the NPDC-ASD project was an amazing experience and I am grateful that the students and staff in our school district were able to have had this opportunity.

## **Limitations/Future Research/ Conclusion**

While the authors did not design or implement the Power Pals program as a research study, the limited data collected along with the anecdotal feedback provided by students, staff, and parents provide preliminary data suggesting that this was a successful program and worth further study. The promise of this implementation of PMII with secondary age students should be studied further in a more empirical design. PMII already has been established in the research literature as an evidence-based practice (Neitzel, 2008b). However, much of this research is focused on its use with young learners with ASD. This limited implementation case study adds to the literature base by demonstrating appropriateness, ease, and success of its use with middle school age learners with ASD.

Future research in this area should endeavor to document more systematically and thoroughly the effects of PMII with older learners in the areas of communication and social skills. Also, while ASD is less common in girls, it may be that the social impact of autism may be less due to the more interactive/interpersonal nature of many girls. Research on gender differences in ASD suggests that social and

communication skills are more greatly affected for boys than for girls (e.g., Williams et al., 2008). Future research that specifically considers the gender effects of ASD, along with how practices such as PMII affect genders differently (in typical peers, as well as in girls with ASD) is much needed.

The challenges of program implementation in rural schools have remained much the same since the mid-1980s: (a) higher poverty levels, (b) higher numbers of students being served in special education (while tax bases remain relatively constant), (c) higher costs for program implementation due to costs of transportation, and (d) scarcity of professional development resources (Helge, 1984). A 2004 survey given to WI rural special education teachers providing secondary and transition services confirmed a general concern for fewer programming options with the challenges of funding cuts, thus limiting what teachers can provide for students due to staffing cut backs and lack of funding for transportation and materials (Collet-Klingenberg & Kolb, 2011). The Power Pals program as implemented in a rural middle school setting is an excellent example of effective and relevant action research that addresses many of these challenges. Multiple stakeholders, including students, teachers, administrators, and parents found the program to be a worthwhile use of student and teacher time with a number of positive outcomes for all involved. The program was inexpensive to implement and easy to generalize across grade levels, making it an appropriate and cost-effective way to address multiple IEP goals across learners in a rural setting. Anecdotal evidence suggested that the impact of the program extended beyond school walls to home and community settings.



## References

- Bass, J. D., & Mulick, J. A. (2007). Social play skill enhancement of children with autism using peers and siblings as therapists. *Psychology in the Schools, 44*(7), 727-735.
- Blew, P.A., Schwartz, I. S., & Luce, S. C. (1985). Teaching functional community-based skills to autistic children using nonhandicapped peer tutors. *Journal of Applied Behavior Analysis, 18*, 337-342.
- Buysse, V., & Wesley, P. W. (2006). Evidence-based practice: How did it emerge and what does it really mean for the early childhood field? In V. Buysse & P. W. Wesley (Eds.), *Evidence-based practice in the early childhood field* (pp. 1-34). Washington, DC: Zero to Three Press.
- Cardillo, J. E., & Choate, R. O. (1994). Illustrations of goal setting. In T. Kiresuk, A. Smith, & J. Cardillo, (Eds.), *Goal attainment scaling: Applications, theory, and measurement* (pp. 15-37). Hilldale, NJ: Lawrence Erlbaum Associates.
- Carter, E. W., & Hughes, C. (2007). Social interaction interventions: Promoting socially supportive environments and teaching new skills. In S. L. Odom, R. Horner, M. Snell, & J. Blancher. (Eds.), *Handbook of developmental disabilities* (pp. 310-328). NY: Guilford Press.
- Carter, E. W., & Kennedy, C. H. (2006). Promoting access to the general curriculum using peer support strategies. *Research and Practice for Persons with Severe Disabilities, 31*(4), 284-292.
- Collet-Klingenberg, L. & Kolb, S. (2011). Secondary and transition programming for 18-21 year old students in rural Wisconsin. *Rural Special Education Quarterly, 30*(2), 19-27.
- English, K., Goldstein, H., Shafer, K., & Kaczmarek, L. (1997). Promoting interactions among preschoolers with and without disabilities: Effects of a buddy skills-training program. *Exceptional Children, 63*(2), 229-243.
- Garrison-Harrell, L., & Kamps, D. (1997). The effects of peer networks on social-communicative behaviors for students with autism. *Focus on Autism and Other Developmental Disabilities, 12*(4), 241-255.
- Gray, C. (2002). *The sixth sense II*. Arlington, TX: Future Horizons, Inc.
- Haring, T. G., & Breen, C. G. (1992). A peer-mediated social network intervention to enhance the social integration of persons with moderate and severe disabilities. *Journal of Applied Behavior Analysis, 25*, 319-334.
- Helge, D. (1984). Rural special education. *Exceptional Children, 50*(4), 294-305.
- Keating-Velasco, J. (2007). *A if for autism F is for friend: A kid's book on making friends with a child who has autism*. Overland Park, KS: Autism-Asperger Publishing Company.
- Maheady, L., Harper, G. F., & Mallette, B. (2001). Peer-mediated instruction and interventions and students with mild disabilities. *Remedial and Special Education, 22*(1), 4-14.
- McConnell, S. R. (2002). Interventions to facilitate social interaction for young children with autism: Review of available research and recommendations for educational intervention and research. *Journal of Autism and Developmental Disorders, 32*(5), 351-372.
- National Professional Development Center on Autism Spectrum Disorders (2007). Cooperative Agreement H 35G 070004 U.S. Department of Education, Office of Special Education Programs. This project is supported by the U.S. Department of Education, Office of Special Education Programs (OSEP).
- Neitzel, J. (2008a). *Steps for implementation: PMII for elementary, middle, and high school*. Chapel Hill, NC: The National Professional Development Center on Autism Spectrum Disorders, Frank Porter Graham Child Development Institute, The University of North Carolina.
- Neitzel, J. (2008b). *Overview of peer-mediated instruction and intervention for children and youth with autism spectrum disorders*. Chapel Hill, NC: National Professional Development Center on Autism Spectrum Disorders, Frank Porter Graham Child Development Institute, The University of North Carolina.
- Odom, S. L., Collet-Klingenberg, L., Rogers, S. J., & Hatton, D. (2010). *Evidence-based practices in interventions for children and youth with autism spectrum disorders*. *Preventing School Failure, 54*(4), 275-282.
- Odom, S. L., McConnell, S. R., McEvoy, M. A., Peterson, C., Ostrosky, M., Chandler, L. K., Spicuzza, R. J., Skellenger, A., Creighton, M., & Favazza, P. C. (1999). Relative effects of interventions supporting the social competence of young children with disabilities. *Topics in Early Childhood Special Education, 19*(2), 75-91.
- Sanford, C., Levine, P., & Blackorby, J. (2008). *A national profile of students with autism: A special topic report from the special education elementary longitudinal study*. SRI Project P10656. Funded by the Office of Special Education Programs, contract number ED-00-CO-0017.
- Strain, P.S., & Odom, S. L. (1986). Peer social initiations: Effective interventions for social skills development of exceptional children. *Exceptional Children, 52*, 543-551.
- Thiemann, K. S., & Goldstein, H. (2004). Effects of peer training and written text cueing on social communication of school-age children with pervasive developmental disorder. *Journal of Speech, Language, and Hearing Research, 47*(1), 126-144.
- Williams, J. G., Allison, C., Scott, F. J., Bolten, P. F., Baron-Cohen, S., Michaels, F. E., & Brayne, C. (2008). The Childhood Autism Spectrum Test (CAST): Sex differences. *Journal of Autism & Developmental Disorders, 38*, 1731-1739.