Article

Hammill Institute on Disabilities

Focus on Autism and Other Developmental Disabilities
2022, Vol. 37(1) 3–12

DOI: 10.1177/10883576211023329
focus.sagepub.com
SAGE

Understanding the Effect Size of Peer-Mediated Academic Instruction: A Meta-Analysis

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Abstract

A deficit in social skills often makes teaching academics a second thought when instructing students with autism. Peer-mediated instruction has been well studied for increasing academic skills across various disabilities and social skills for students with autism spectrum disorder (ASD). The purpose of this study was to determine the effect size of peer-mediated academic instruction (PMAI) to increase academic skills for students with ASD. Results indicate studies demonstrate a weak to moderate effect when using PMAI to teach students with ASD. These results validate PMAI can be effective when teaching academic skills to students with ASD; however, more studies are needed to better understand for whom and under what conditions PMAI is most effective.

Keywords

autism, peer tutoring, academic interventions

Today, more than half of students diagnosed with autism spectrum disorder (ASD) spend 40% or more of their time in general education (Snyder et al., 2016); however, many educational programs for children with ASD focus on social and communication skills rather than academics (Keen et al., 2016; Wei et al., 2015; Wong et al., 2013). No Child Left Behind (2001) stressed the importance of providing appropriate education to children with disabilities (No Child Left Behind Act of 2001). However, many students with ASD have deficits in core subject areas (Wei et al., 2015). The lack of focus in academic areas could be detrimental to the quality of life in postsecondary outcomes for students with ASD (Newman et al., 2011). This includes the ability to maintain a job and go on to postsecondary education, a requirement for more than 42% of jobs (Carnevale et al., 2013).

Academic Achievement

Students with ASD demonstrate varied abilities in academic achievement, attributable to the heterogeneity within the population (Chen et al., 2019; Nation et al., 2006). While students may excel in one subject, they may perform poorly in another (Chen et al., 2019; Kurth & Mastergeorge, 2010; Regelski, 2016). In addition, learning challenges can be exacerbated by difficulties with executive functioning; social, learning, and communication difficulties; increased rates of exclusion; and stereotypy and challenging behaviors (Watkins et al., 2019). Support in the classroom may also be influenced by teachers' struggles to modify tasks, accommodate learning differences, handle challenging behavior, and support relationships between students with ASD and their peers (Lindsay et al., 2013).

Studies show that students' academic competence influences social competence from year to year and a focus on academic skills training provides greater benefits to academic and social outcomes, including a reduction in challenging behaviors, when compared with social skills training alone (Welsh et al., 2001). These studies suggest that teaching academics produces needed gains in academic and social skills. This creates a need for effective interventions that can be implemented in the classroom and are cost-effective, socially valid, and not stigmatizing (Broer et al., 2005; Hoff & Robinson, 2002).

Research in Peer-Mediated Academic Instruction (PMAI) for Students With ASD

Peer-mediated instruction is defined as peers interacting or helping individuals learn a new skill in the natural

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environment (Wong et al., 2013). Krebs et al. (2010) found students with ASD can be taught by peers, improving both social and academic outcomes simultaneously. Often, peers are better able to understand their peer with ASD's nonverbal behavior, sooner than their teachers, when struggling (Gaustad, 1993). Peers can serve as cues to increase time on task and generalization, and they are a readily available resource (Hoff & Robinson, 2002; McCurdy & Cole, 2014). The implementation of peer tutors to improve performance for students with and without disabilities demonstrated moderate to strong effects, with improvements seen among the tutors as well (Bowman-Perrott et al., 2013; Cohen et al., 1982). Peers benefit by increased exposure to materials, as well as learning acceptance and how to interact with their peers with ASD (Harper & Maheady, 2007). Although the effects of peer-mediated instruction are well known for a large population, they are understudied for students with ASD (Bene et al., 2014; Bowman-Perrott et al., 2013; Hott et al., 2014).

A review of the literature identified peer-mediated instruction as meeting What Works Clearinghouse (WWC) standards; however, just two studies involved academic dependent variables (Wong et al., 2013). An initial quality review of the PMAI literature between 1960 and 2020 identified 17 (three group and 14 single-case) studies. All studies demonstrated positive outcomes, and a quality indicator analysis identified both group design studies as meeting Council for Exception Children (CEC) and WWC standards. None of the 14 single-case studies met all of the CEC standards, but nine met WWC standards with reservations. These studies authored by eight research teams representing five geographic regions (Haas et al., 2020) indicate PMAI could be considered an evidence-based practice (EBP) according to WWC standards. A meta-analysis quantifying the effects of the studies will also provide information about the usefulness of the intervention in a practical setting.

Meta-Analysis in Peer-Mediated Instruction

Two meta-analyses of peer-mediated instruction for students with ASD demonstrated moderate to strong effects for academic skills dependent on the peer arrangement (Bene et al., 2014; Hott et al., 2014). Bene et al. (2014) identified 14 studies to determine the effects of peer-mediated instruction. Using nonoverlap of all pairs (NAP) to calculate effect size, Bene et al. found that peer-mediated instruction demonstrated an overall effect of 0.82 (95% confidence interval [CI] = [0.50, 1.00]) and an effect size for academic skills of 0.82, indicating a medium effect. Studies' dates ranged from 1981 to 2010, with a study from 2008 being the latest academic study. Although a majority of the studies (71%) included academic skills, peer-mediated instruction was loosely defined as "researchers used typical peers to teach, mediate, model, prompt, reinforce, and correct errors during academic activities with children with ASD" (Bene et al., 2014, p. 110). Authors reported publication bias as a possible limitation to their study because they did not include unpublished studies of dissertations.

Hott et al. (2014) identified 17 studies from 1989 to 2012 to determine the effect of peer tutoring interventions for students with ASD. In this study, *peer tutoring* was defined as an intervention that consists of student partnerships, linking high achieving students with lower achieving students or those of similar level in structured academic sessions" (Hott et al., 2014, p. 136). Using percentage of nonoverlapping data (PND), Vannest and Ninci (2015) calculated an overall effect size of 0.78, demonstrating a moderate effect. Academic skills demonstrated an overall effect of 0.90; however, only two studies were included for synthesis. Limitations of their study include the effect size analysis, which did not account for outliers and trend.

Understanding the effect size of studies that also meet quality standards allows researchers and educators to select practices known to work for a specific population (Beretvas & Chung, 2008). The purpose of this meta-analysis is to update the literature and understand the effects of PMAI on academic outcomes for students with ASD. This meta-analysis will identify the effects of using peers as instructors for academic content for students with ASD. The following were the research questions for this study:

1. What is the effect size of PMAI using Tau-U?
2. What are the overall effects of studies meeting quality and those that do not?
3. What are the effects for specific skills targeted?
4. What are the effects for individual studies?
5. What are the implications of the effect size results based on quality?

Method

A comprehensive review of the literature related to PMAI included data extraction and effect size calculation for each study and a meta-analytic approach to examining moderators and overall effects of this body of literature. This study adhered to guidelines and recommendations for engaging in high-quality comprehensive meta-analysis by following Preferred Reporting Items for Systematic Reviews and Meta-Analysis (PRISMA) guidelines (Moher et al., 2009).

Inclusion and Exclusion Criteria

Studies included for the meta-analysis met the following criteria: (a) participants were school age (pre-K–12th grade),

(b) participants were diagnosed with ASD, (c) interventionists identified as typically developing peers, (d) experimental single-case methodology used as opposed to narrative or nonexperimental, and (e) academic behavior was operationally defined as a dependent variable. Studies excluded from the review included internalized behaviors such as reflection, thinking or cognitive tasks, or behaviors not operationally defined. Studies in languages other than English or solely measuring social goals were also eliminated.

Utilizing the peer-mediated instruction definition by Wong et al. (2013), we excluded studies included in previous meta-analyses (Bene et al., 2014; Hott et al., 2014) for the following reasons: peers served as models (Egel et al., 1981) and the use of peers were unclear (Whalon & Hanline, 2008). Additional studies from prior meta-analyses were excluded for not meeting current inclusion criteria, including students with autism serving as the peer tutor (Kamps et al., 1999) and communication skills serving as the dependent variable (Chung et al., 2007; Hunt et al., 1994; Krebs et al., 2010; Petursdottir et al., 2007). Two additional studies that met criteria, however, were excluded because they did not meet design standards and data could not be synthesized (Bedrosian et al., 2003; Scott, 2013). In all, 10 studies were included for our meta-analysis.

Search Procedures

Search procedures included the following databases: Education Resources Information Center (ERIC), Academic Search Complete (now Academic Search Ultimate), and, PsycINFO®. Limits were set for English language journals only. A professional reference librarian conducted the search to reflect standards and ensure independence. Gray literature (dissertations/ theses, reports, conference papers, and books) were included, with ProQuest and OpenDissertations used to identify dissertation abstracts.

Thesaurus procedures included ERIC and PsycINFO® databases and prior meta-analysis (Bene et al., 2014; Hott et al., 2014). The authors utilized the thesaurus in ERIC and PsycINFO® to identify terms associated with ASD such as Asperger syndrome and pervasive developmental disorders. In addition, the thesaurus identified terms associated with peer tutoring, instructional strategies, outcomes, and academic subjects. The three identified databases were searched with 108 terms related to four categories: *autism* (three terms), *academic subject* (73 terms), *peer tutoring* (20 terms), and *outcomes* (12 terms). Boolean strings included in the searches encompassed the following: *autism* AND *academic subject* AND, *outcomes, OR autism* AND *academic subject* AND, *peer tutoring*. The comprehensive list of keywords can be obtained by contacting the first author. This search procedure is a more comprehensive search methodology compared with prior studies.

A search through 2020 produced 7,640 articles for initial title and abstract review. Through the title/abstract review, 20 studies were identified for full-text review. Through ancestral and forward searching, three additional full-text articles were obtained. A total of nine full-text articles were excluded for the following reasons: wrong intervention, n = 4; wrong design, n = 2; and unable to extract data, n = 3 (PRISMA diagram can be found in the online supplemental materials). Finally, a total of 14 studies included for the meta-analysis.

Data Extraction

Original analysis identified moderators a priori to understand what factors may influence the effects of PMAI; however, characteristics such as implementer were too homogeneous to allow for a moderator analysis (Lipsey & Wilson, 2001). Moderators assessed include academic skill acquisition compared with academic engagement and studies meeting quality indicators compared with those that did not. Single-case studies meeting inclusion criteria had raw data extracted using the website https://apps.automeris.io/wpd/. This website allowed for data extraction of the standard celeration charts seen in Regelski (2016). Raw data were then placed into an Excel sheet organizing studies by the author, year, participant, and academic skill. In total, 4,279 A-B phase contrast data points were extracted for analysis. A-B phase contrasts consisted of baseline and intervention data that fit inclusion criteria (i.e., social data were not extracted).

Analysis of Results

Data were analyzed using the Tau-U calculator (Vannest et al., 2016), and A-B phases were contrasted with Tau-U only and without a corrected baseline to find the effect size of each participant. Tau-U was used to calculate an omnibus effect for all the studies, author groups, each study, and similar independent variables (academic engagement, academic instruction, and academic skill acquisition). Studies were also analyzed using NAP and improvement rate difference (IRD) for comparison purposes. More recent effect size measures such as hierarchical linear modeling (HLM) were not used due to varying designs used among the studies, not all studies utilized nested participants, and some studies had small data sets that might have led to a biased effect (Joo et al., 2019).

Tau-U. Tau-U is a statistic combining Kendall's Tau and Mann–Whitney *U*, designed to analyze nonoverlap and control for trend (Parker et al., 2011). Tau-U differs from other single-case data analyses (SCED) in that it can conservatively control for positive baseline trend and has strong statistical power (Manolov et al., 2016; Parker et al.,

2011). Tau-U produces more conservative results than IRD or NAP (Maggin et al., 2019), can be used for small data sets (Vannest & Ninci, 2015), and is distribution free, so it can account for the variability in data often seen in single-case research. In addition, Tau-U is not affected by a ceiling effect as is often seen in SCED (Parker et al., 2011). Although Tau-U is popular due to strengths related to baseline trend and statistical power, Tau-U is not without limitations. One limitation is that effects can be inflated and are not bound by their limits when baseline is corrected, affecting how effects should be interpreted and increasing Type 1 error. Tau-U is also influenced by intervention phase length, in that the more data points available, the more likely a higher effect will be observed (Tarlow, 2017).

Improvement rate difference. IRD is an effect size created specifically for single-case research that would be more robust than measures such as PND and percentage of data points exceeding the median (PEM). IRD is determined by the improvement rate of intervention minus baseline improvement rate reflective of proportion of improvement. Although IRD can discriminate differences in scores and is derived from the medical literature, like other effect size calculations, trend is not addressed (Parker et al., 2009).

Nonoverlap of all pairs. NAP was created to account for upper and lower ends of a score. When computing effect size, NAP compares all data points with one another, increasing its sensitivity. Again, as with most single-case effect size calculations, NAP does not address trend (Parker & Vannest, 2009).

Results

Overall, 12 single-case studies included 30 students with 4,279 pairs and 37 A-B phase contrasts. Nine (75%) of the studies met WWC quality indicators with reservations. The dependent variables for the studies fell into three categories: academic engagement, academic skill acquisition, and reading comprehension. Study dates ranged from 1989 to 2018, with age and grade ranging from eight to 19 years and third to 12th grades, respectively.

Interrater Agreement Procedure

The first and fourth authors individually reviewed 20% of the identified titles and abstracts (n = 1,211) using the inclusion and exclusion criteria and 100% of the identified full texts once identified through the title and abstract search. Authors assessed reliability as agreements over agreements plus disagreements. If disagreements occurred, the article was reviewed together to reach a consensus. Reviewers reached 99% agreement after reviewing 20% of the title and abstracts and 100% agreement after reviewing 100% of the full texts.

Interrater reliability was coded for data extraction using WebPlotDigitizer 4.1 (https://apps.automeris.io/wpd/). Data were rounded to the nearest whole number after extraction. For agreements during data extraction, if data points differed by less than or equal to 1% difference, they were considered an agreement; this is due to the sensitivity when extracting the data using the data extraction website (Drevon et al., 2017; Rakap et al., 2016). Interrater reliability for data extraction is 83%, respectively, coded for 80% of the studies.

Overall and Quality Effects of PMAI

The overall effect size for PMAI on all academic behavior using Tau-U was 0.54 (90% CI = [0.46, 0.61]), demonstrating data from 30 students with 37 A-B phase contrasts and 4,279 pairwise comparisons, indicating moderate effects on academic behavior (see Figure 1 and Table 1). Studies meeting quality indicator standards produced a Tau-U effect of 0.55 (90% CI = [0.46, 0.63]), indicating moderate effects. On the contrary, studies not meeting quality indicators produced a Tau-U effect of 0.50 (90% CI = [0.30, 0.69]).

Effect Size for Targeted Skills

Effect size based on skills taught (see Figure 2 and Table 2) indicating academic engagement demonstrated a Tau-U score of 0.37 (90% CI = [0.25, 0.52]), indicating a weak effect. Interestingly, academic engagement was slightly lower for studies meeting quality indicators with a Tau-U score of 0.32 (90% CI = [0.20, 0.53]), demonstrating a weak effect. Comparatively, studies not meeting quality indicators demonstrated a score of 0.42 (90% CI = [0.19, 0.65]), indicating a moderate effect.

Overall academic skill acquisition had a Tau-U score of 0.61 (90% CI = [0.52, 0.70]), signifying a moderate effect. Academic skill acquisition was similar for studies meeting quality indicators, with a score of 0.61 (90% CI = [0.51, 0.70]), representing a moderate effect size, whereas studies not meeting quality indicators demonstrated a moderate effect size with a slightly higher Tau-U score of 0.69 (90% CI = [0.33, 1.00]). The Tau-U results indicate that PMAI has a moderate effect on academic behavior.

Reading comprehension demonstrated a moderate Tau-U effect of 0.71 (90% CI = [0.59, 0.83]) for all studies. Studies meeting quality indicators had a moderate Tau-U effect of 0.70 (90% CI = [0.58, 0. 83]). However, the one study not meeting quality indicators demonstrated a very large Tau-U effect of 0.94 (90% CI = [0.24, 1.00]).

Effects of Individual Studies

Tau-U per studies ranged from 0.31 to 0.94, indicating moderate to very large effect sizes (see Table 1). A small effect was seen in one study, 33% (n = 3) of the studies demonstrated a

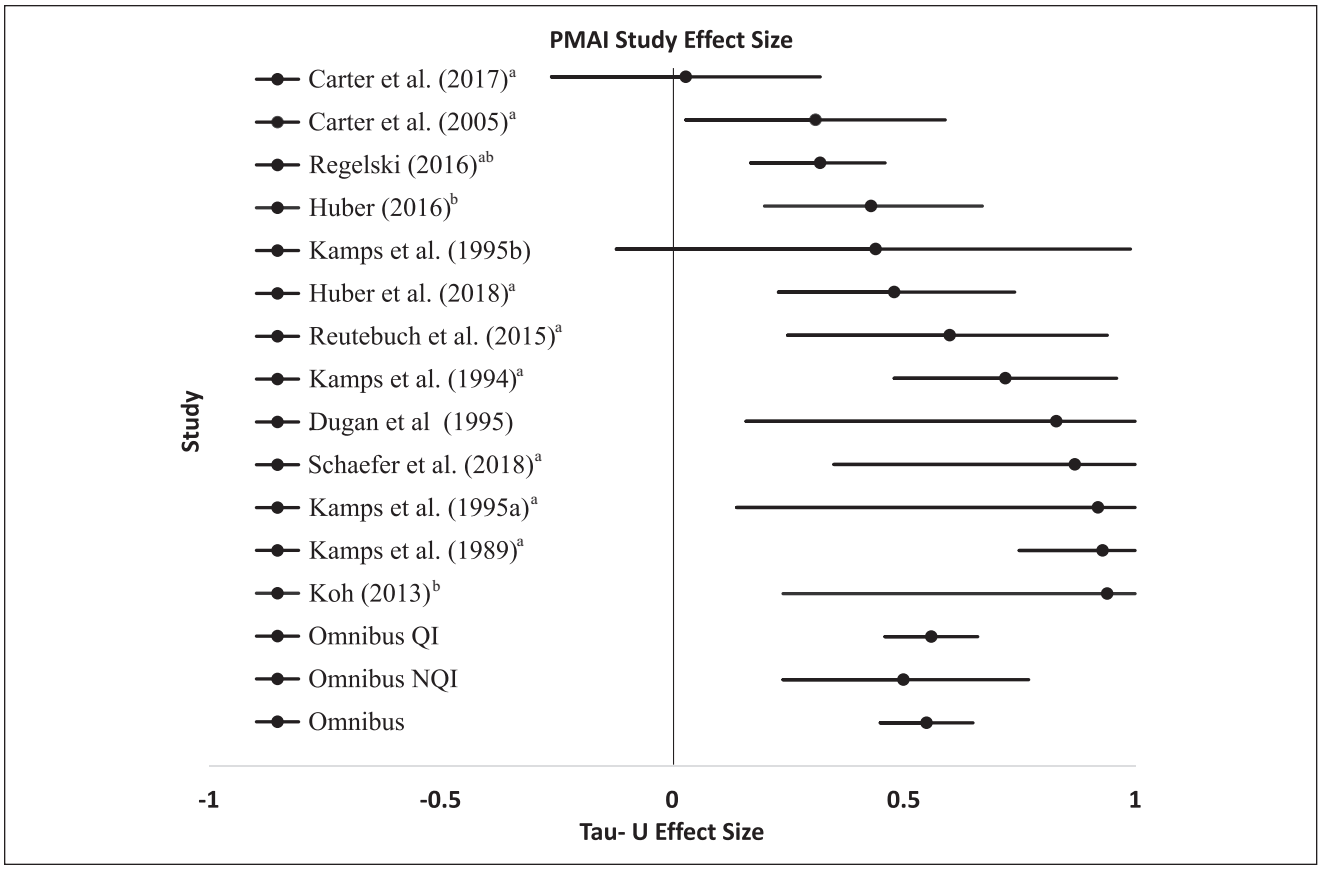

Figure 1. Forest plot of study effects.
Note. QI = studies meeting quality indicators; NQI = studies not meeting quality indicators.
[a]Study met quality indicators. [b]Dissertation.

moderate effect, 25% ($n = 3$) of the studies indicated a large effect, while 33% ($n = 4$) demonstrated a very large effect. Some studies' effect sizes were influenced by one participant, reducing the overall effect size for the study (see online supplemental materials). Participants' Tau-U ranged from 0.00 to 1.00, indicating effects fluctuated from weak to strong. IRD for studies ranged from 0.22 to 0.79, suggesting questionable to very large effects. Half of those studies demonstrated questionable effects while a quarter demonstrated either larger or vary large effects. Participants' IRD ranged from 0.07 to 1.00, again ranging from questionable to very large effects. When calculating NAP, studies ranged from 0.54 to 0.97, demonstrating a weak to large effect. Using NAP, 41% ($n = 5$) demonstrated a weak effect, 33% ($n = 4$) indicated a medium effect, and the remaining 25% ($n = 3$) suggested a large effect. Participants' NAP scores ranged from 0.19 to 1.00, suggesting weak to large effects.

Discussion

Results suggest contradictory conclusions regarding the benefit from PMAI. An overall effect size for academic behaviors suggests moderate effects for PMAI. Whereas studies focusing on academic engagement demonstrated moderate effects and studies focusing on academic skill acquisition or reading comprehension demonstrated large effects, suggesting that PMAI may be more effective when teaching academic skills to students with ASD. It is important to note strength of effect was determined using an arbitrarily set standard (Parker et al., 2011; Vannest & Ninci, 2015), and the results should be interpreted with caution. Future research should include creating benchmark effect sizes, using percentile ranking, to understand results specific to PMAI (Ganz et al., 2017). The variability of results align with past studies indicating the heterogeneity of ASD may influence academic achievement (Chen et al., 2019; Griswold et al., 2002; Nation et al., 2006).

Aligning with the current literature, most studies focused on reading. Results of this meta-analysis may reflect the heterogeneity of the students with ASD or other underlying behaviors that may interfere with learning, such as communication difficulties, challenging behavior, or decreased cognitive function not targeted during intervention (Chen et al., 2019; Griswold et al., 2002; Nation et al., 2006;

Table 1. Effects Size Per Study.

Study	Tau-U pairs	Tau-U	Weighted Tau-U	SD_{Tau}	*p*	CI_{90}	IRD	NAP	CI_{95}
Carter et al. (2005)[a]	32	0.36	0.31	0.31	.25	[–0.15, 0.87]	0.49	0.68	[0.40, 0.87]
Carter et al. (2017)	132	0.03	0.05	0.18	.87	[–0.26, 0.32]	0.22	0.56	[0.40, 0.71]
Dugan et al. (1995)	12	0.83	0.83	0.41	.04	[0.16, 1.00]	0.79	0.96	[0.58, 1.00]
Huber (2016)[b]	428	0.42	0.43	0.14	.003	[0.19, 0.65]	0.24	0.58	[0.44, 0.70]
Huber et al. (2018)[a]	406	0.49	0.51	0.15	.0008	[0.25, 0.72]	0.43	0.71	[0.58, 0.82]
Kamps et al. (1989)[a]	1107	0.94	0.93	0.10		[0.77, 1.00]	0.55	0.63	[0.54, 0.72]
Kamps et al. (1994)[a]	435	0.73	0.72	0.15		[0.49, 0.97]	0.51	0.75	[0.62, 0.85]
Kamps et al. (1995)	44	0.60	0.60	0.28	.029	[0.15, 1.00]	0.42	0.64	[0.40, 0.83]
Kamps et al. (1995)[a]	32	0.44	0.44	0.34	.20	[–0.12, 0.94]	0.53	0.77	[0.44, 0.92]
Kamps et al. (1995)	12	0.92		0.47	.05	[0.14, 1.00]	0.70	0.96	[0.50, 1.00]
Koh (2013)	18	0.94		0.43	.03	[0.24, 1.00]	0.75	0.97	[0.55, 1.00]
Regelski (2016)[a]	1,422	0.31	0.32	0.09	.0004	[0.17, 0.45]	0.20	0.54	[0.46, 0.62]
Reutebuch et al. (2015)[a]	108	0.60	0.60	0.21	.004	[0.25, 0.94]	0.53	0.76	[0.57, 0.88]
Schaefer et al. (2018)	60	0.87		0.32	.006	[0.35, 1.00]	0.72	0.93	[0.63, 0.99]
Omnibus	4,279	0.54	0.55	0.05		[0.46, 0.61]			
Omnibus QI	3,789	0.55	0.54	0.05		[0.46, 0.63]			
Omnibus NQI	490	0.50	0.55	0.12		[0.30, 0.69]			

Note. CI = confidence interval; IRD = improvement rate difference; NAP = nonoverlap of all pairs; QI = studies meeting quality indicators; NQI = studies not meeting quality indicators.
[a]Study met quality indicators. [b]Dissertation.

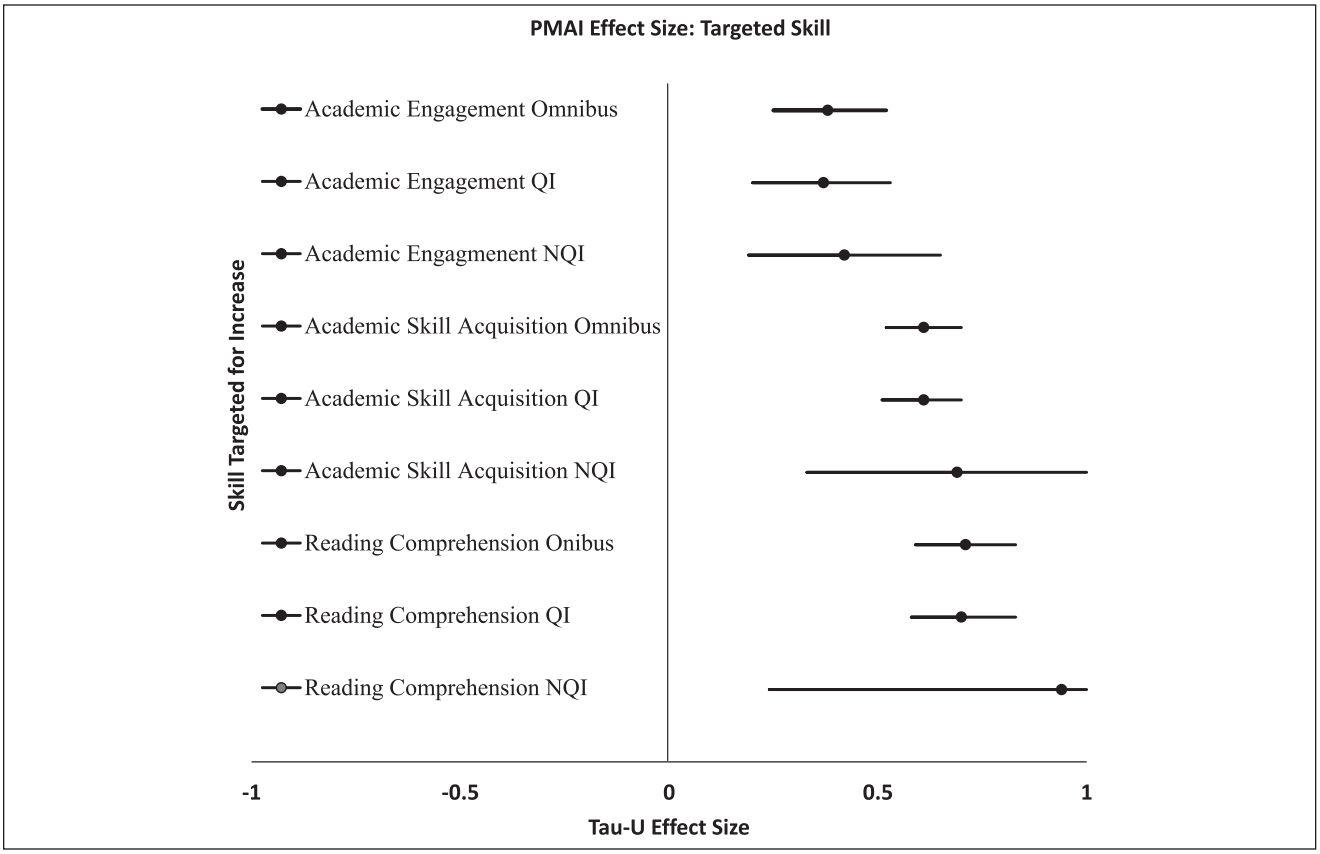

Figure 2. Forest plot of effect size based on skills taught.
Note. QI = studies meeting quality indicators; NQI = studies not meeting quality indicators.

Table 2. Effect Size Based on Skills Taught.

Study	Tau-U pairs	Tau-U	Weighted Tau-U	SD_{Tau}	*p*	CI_{90}
Academic Engagement Omnibus	1,058	0.38	0.37	0.08		[0.25, 0.52]
Academic Engagement QI	630	0.37	0.32	0.10	.0003	[0.20, 0.53]
Academic Engagement NQI	428	0.42		0.14	.003	[0.19, 0.65]
Academic Skill Acquisition Omnibus	3,221	0.61	0.63	0.06		[0.52, 0.70]
Academic Skill Acquisition QI	3,159	0.61	0.62	0.06		[0.51, 0.70]
Academic Skill Acquisition NQI	62	0.69	0.69	0.22	.002	[0.33, 1.00]
Reading Comprehension Omnibus	1,650	0.71	0.71	0.07		[0.59, 0.83]
Reading Comprehension QI	1,632	0.70	0.70	0.08		[0.58, 0.83]
Reading Comprehension NQI	18	0.94		0.43	.03	[0.24, 1.00]

Note. CI = confidence interval; QI = studies meeting quality indicators; NQI = studies not meeting quality indicators.

Watkins et al., 2019). Future research should identify and address whether other variables may influence the outcome of results, in particular, whether researchers accounted for communication difficulties or challenging behaviors and prerequisite skills identified before intervention to ensure students would be capable of performing the task.

PMAI demonstrates positive effects for increasing social skills in children with ASD (Zhang & Wheeler, 2011) as well as for increasing academic skills for students with different disabilities (Bowman-Perrott et al., 2013). These effects—coupled with the effects from this study and given more robust research—provide a promising intervention that can be used to increase academic skills for children with autism, skills often understudied (Wei et al., 2015). In addition, studies show an increase in social skills without additional training when using PMAI to change other behaviors (Krebs et al., 2010).

Peers are useful for several reasons: First, they can reduce stigma associated with a paraprofessional (Broer et al., 2005). Peers are typically in the same settings with students with disabilities, making them a valuable resource who serve as a signal to remind students with ASD what is expected of them (McCurdy & Cole, 2014). Second, if they serve as a cue, peers can also help generalize skills in other settings they share with students with disabilities. Finally, when peers are helping, teachers' time is freed, allowing teachers to focus more on instruction or additional teaching support, which proves to be time- and cost-efficient rather than focusing on challenging behavior (Hoff & Robinson, 2002). Tutees become more confident, attitudes about school change, and relationships with peers' form (Asselin & Vasa, 1981; Bedrosian et al., 2003; Carter et al., 2015).

Peer tutors benefit from teaching others, acquiring new skills when providing feedback and correction to tutees and learning how to work with and advocate for individuals with disabilities (Asselin & Vasa, 1981; Franca et al., 1990). Tutors who are deficient in skills benefit from teaching others (Franca et al., 1990) and those efficient in skills build fluency and confidence (Asselin & Vasa, 1981).

Implication for Research

Although the results of these studies are promising, there are a few implications for research that need to be addressed. As there are a limited number of studies, more replication is needed to increase confidence in the results. As PMAI's procedure for implementation varies, it is also important to determine which strategy is the most effective. More studies should focus on specific academic areas to better understand with whom and under what conditions PMAI is most beneficial. Studies should also focus on increasing academic skills and measuring social skills as a secondary effect outside of tutoring sessions. As noted above, effect sizes cannot distinguish between clinical and statistical significance; therefore, future research should combine the use of visual and statistical analyses to determine what effect size range, using a percentile ranking, could determine clinical significance for PMAI (Ganz 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 contents of this manuscript were developed under the *Preparation of Leaders in Autism Across the Lifespan* grant awarded by the U.S. Department of Education, Office of Special Education Programs (H325D110046). The views herein are those of the authors and do not necessarily reflect those of the U.S. Department of Education.

Supplemental Material

Supplemental material for this article is available on the *Focus on Autism and Other Developmental Disabilities* website at https://focus.sagepub.com.

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