Who’s Training Whom? Examining Job-Embedded Paraprofessional Training to Support Social Interactions

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“Few teachers can be placed in a classroom without having learned the classroom management techniques required to develop lessons, deliver instruction, and assess students. Many teachers, however, find themselves ill-equipped to manage the work of another adult – the paraeducator – because they have received little or no formal training in supervisory methods, either as part of their teacher education or from their school or district.”

TERI WALLACE (2002)
Why Study This

Teacher Perspective

• The vast majority of teachers report having limited or no preservice or inservice training on the supervision of paraprofessionals (Drecktrah, 2000; French, 2001)
  • This is a challenging aspect of the job
  • Teachers report having limited time available to train and meet with paraprofessionals (French, 2001; Suter & Giangreco, 2009)

• There is a lack of research on paraprofessional training practices that utilize special education teachers as the trainers (Brock & Carter, 2013; Brock & Carter, 2016; Mason et al., 2017)
Why Study This

Paraprofessional Perspective

• Paraprofessionals are frequently thrown into their positions with limited training

• Navigating the demands and expectations between special education and general education settings can be complex
  • Oftentimes there is not a shared vision or shared goals for time spent in general education for students with low-incidence disabilities... paraprofessionals providing support in these settings, have to navigate their job in the absence of a common purpose (Marks, Schrader, & Levine, 1999; Downing, Ryndak, & Clark, 2000)

• The inappropriate utilization of inadequately trained paraprofessionals can negatively impact social relationships, and academic experiences and success (Giangreco et al., 1997; Malmgren & Causton-Theoharis, 2006)
Research Questions

1. Will paraprofessionals successfully acquire and apply facilitative behaviors to support social interactions between students with disabilities and their peers without disabilities with training from their supervising special education teacher?

2. Does training paraprofessionals to facilitate interactions between students with disabilities and their non-disabled peers increase the quantity of interactions between students with disabilities and their peers that occur in a general education setting?
3. Does the training increase the facilitative behaviors of these paraprofessionals in a generalization setting (non-training setting, another setting with in which the student is supported by the paraprofessional and in contact with peers without disabilities)?

4. How do special education teachers engage in follow up support and coaching with paraprofessionals when using the job-embedded curriculum?

5. How do special education teachers, and paraprofessionals view the feasibility and acceptability of the professional development package?
Research Methods

- Concurrent Stacked A-B Design (*quasi-experimental)
  - 6 participating schools
    - 2 elementary (kindergarten & 5th grade)
    - 3 middle schools (two 6th graders & 8th grader)
    - 1 high school (10th grader)

*A requirement of the study was the teacher training their own paraprofessionals. Time for this training was dependent on the individual teacher and paraprofessional. It was viewed as potentially problematic to expect teachers and paraprofessionals to train on demand based on predetermined lengths of baseline, or after sufficient “verification periods”.

Two dependent variables

1. Social Interactions between focal student and peers from the general education classroom
   - any two-way communication or any verbal or active non-verbal behavior that resulted in another person to have a verbal or non-verbal response. These interactions may include questioning, directions, gesturing, nodding, following through on a verbal direction given by the peer, physical or verbal resistance to an initiation, obvious change in expression or intentional eye contact as the result of an initiation, responding to or accepting physical support (Beckstead & Goetz, 1990).

2. Successful Social Facilitation Strategies
   - any verbal or active non-verbal behavior from the paraprofessional or another adult that resulted in a peer interaction as defined above
Independent Variable

Teachers were given a full copy of a training curriculum:

*Supporting Students with Disabilities in Inclusive Schools A Curriculum for Job-Embedded Paraprofessional Development* (Ghere, York-Barr, & Sommerness, 2002).
Teachers went through Unit 7 on social relationships and supporting interactions with the researcher. The researcher modeled the use of the curriculum by conducting it with the teacher. Mean training time was 45 minutes. (Range of 36-62 minutes)

A brief discussion of evidence based professional development / training practices was included in this training and teachers were encouraged to utilize these strategies in the training of their paraprofessionals (practice based coaching practices were discussed and shared, but not “trained”)

Teachers provided the same training to their paraprofessionals. Training times averaged 66 minutes (range 54-89 minutes)
<table>
<thead>
<tr>
<th>Title</th>
<th>Unit 7: How to Interact? Student Relationships</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Unit Sections</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Welcome and Overview / p. 83</td>
</tr>
<tr>
<td></td>
<td>Personal Reflection / p. 84</td>
</tr>
<tr>
<td></td>
<td>Why is This Important? / p. 85</td>
</tr>
<tr>
<td></td>
<td>New Learning / p. 86</td>
</tr>
<tr>
<td></td>
<td>Unit Summary / p. 88</td>
</tr>
<tr>
<td></td>
<td>Follow-up Activity / p. 88</td>
</tr>
<tr>
<td><strong>Materials</strong></td>
<td>Unit 7 Paraprofessional Handouts</td>
</tr>
<tr>
<td><strong>Time</strong></td>
<td>Approximately 90 minutes. This unit could be offered as one long session or two shorter sessions.</td>
</tr>
</tbody>
</table>
Strategies:
Social Facilitative Strategies

1. Modeling ways to interact with the student with IEP
   “Ramone can follow along with this game if you would show him how to match the cards like this.”
   “How does this game work? Oh, I see. You need to match the green cards to the green cards and put the red ones with the red ones.”

2. Highlighting similarities between student with IEP and peers
   “You and Samantha should compare your pictures. It looks like each of you have the same favorite sport.”
   “Wow! You both love Paw Patrol. Shane is into that . . . you should ask him about his favorite pup.”
   “I heard Monique say she also wanted to see that movie. Maybe you could go together.”

3. Identifying strengths of student with IEP for peers
   “It sure works great when everyone in a group is good at doing different things. How did each member help get your project done?”
   “You and Carlos will make great book report partners! You have a talent for writing, and Carlos has a talent for drawing. Together, you should end up with a super project!”

4. Direct teaching of interaction skills
   “Juan Carlos isn’t looking. I don’t think he heard you. You could ask again. Make sure he sees you.”
   “Trisha could use some help with holding the paper down, why don’t you ask her if you can help her? She likes it when classmates ask before they help.”
   “What is another way that you could ask Patrick to borrow his ruler?”

5. Interpreting behaviors for peers

“Theresa, you talk aloud during math because it helps you think through the equations, right?”
“That is usually a sign that Sarah is feeling a little anxious.”
“When Brent hits his hand on the desk, he is letting us know that he is frustrated. He is working hard to learn other ways to let people know what he is feeling.”

6. Redirecting student interactions to peers

“If you want to know how Jack is doing, just ask him yourself. Just make sure he can see you when you ask.”
“I don’t know. He’s sitting right over there. I bet he’d tell you if you ask him directly.”
“See if you can get John to help you with this problem.”
“Why don’t you ask Sam that question?”
“Anita might be willing to check to see if your answers are correct.”
“Hmm, I’m not sure what you should do next. Why don’t you ask your classmate what the assignment is?”

7. Directly asking peers to provide assistance or to engage

“Mary, will you please help Brian with his worksheet?”
“If you point to and read the question, he can keep his place and answer.”
“Would you be willing to be his partner and read out loud to him?”

8. Increasing proximity of student with IEP to peers (vice versa)

“Brian, why don’t you go and sit with your lab group?”
“Hmm . . . the group is about to start and you are still way over here!”
“Uh, guys, I think you are missing someone . . .”

Follow Up Activity for Participating Paras

• Look again at the table of facilitative behaviors to support social interactions. What are 2 or 3 behaviors from that table that you feel would support this student in this specific class? (please list them)

• Provide some specific example language and actions that you may use when engaging in the above facilitative behaviors:

• Share this list with the general education teacher in that class and get their input and approval for the appropriateness of these specific facilitative strategies. What input did you receive from the general education teacher?
Participants

6 Students with Low-Incidence Disabilities

1. Deven – 8th grader with ASD. East Indian Background, Gujarati spoken in the home
2. Yasmin – 6th grader with Intellectual Disability (Down Syndrome). From Brazil. Portuguese spoken in the home
3. Katie – 6th grader with multiple disabilities (Genetic Disorder). Non-verbal – uses SGD
4. Jordan – 10th grader with ASD. Non-verbal – uses SGD
5. Alex – 5th grader with ASD. Family from Russia (Russian spoken in the home)
6. Reema – Kindergartener with ASD. From Saudi Arabia (Arabic spoken in the home)
<table>
<thead>
<tr>
<th>Triad #</th>
<th>Sped Teacher</th>
<th>Paraprofessional</th>
<th>Age</th>
<th>Years Experience</th>
<th>How long the pair have worked together with focus student (years)</th>
<th>Race</th>
</tr>
</thead>
<tbody>
<tr>
<td>#1</td>
<td>Deric</td>
<td>Kelcey</td>
<td>44</td>
<td>4</td>
<td>1</td>
<td>Caucasian</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>39</td>
<td>2</td>
<td></td>
<td>African-American</td>
</tr>
<tr>
<td>#2</td>
<td>Diana</td>
<td>Miranda</td>
<td>59</td>
<td>15</td>
<td>1</td>
<td>Caucasian</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>23</td>
<td>1.5</td>
<td></td>
<td>Hispanic</td>
</tr>
<tr>
<td>#3</td>
<td>Travis</td>
<td>Danielle</td>
<td>30</td>
<td>8</td>
<td>4 months</td>
<td>Caucasian</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>25</td>
<td>4 months</td>
<td></td>
<td>Caucasian</td>
</tr>
<tr>
<td>#4</td>
<td>Sara</td>
<td>Pamela</td>
<td>36</td>
<td>14</td>
<td>2</td>
<td>Caucasian</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>55</td>
<td>5</td>
<td></td>
<td>Caucasian</td>
</tr>
<tr>
<td>#5</td>
<td>Emma</td>
<td>Nancy</td>
<td>27</td>
<td>5</td>
<td>2</td>
<td>Caucasian</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>61</td>
<td>4</td>
<td></td>
<td>Caucasian</td>
</tr>
<tr>
<td>#6</td>
<td>Jennifer</td>
<td>Amanda</td>
<td>33</td>
<td>6</td>
<td>1</td>
<td>Caucasian</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>36</td>
<td>1.5</td>
<td></td>
<td>Caucasian</td>
</tr>
</tbody>
</table>
How do the study participants compare to the nation?

- 6 Females.
- Paraprofessionals mean age of 39.8 (range of 23-61).
- Mean years of experience 2.4 years (range of 4 months – 5 years)
- Average paraprofessional nationally is a 44-year old female with 6.5 years of experience in special education (SPENSE, 2001)
# Paraprofessional Social Facilitation Means Across Phases

<table>
<thead>
<tr>
<th></th>
<th>Mean Rate Social Facilitation in Baseline</th>
<th>Mean Rate Social Facilitation in Treatment</th>
<th>Percentage of Non-Overlapping Data Points (PND)</th>
<th>Mean Rate Baseline Generalization</th>
<th>Mean Rate Treatment Generalization</th>
</tr>
</thead>
<tbody>
<tr>
<td>#1 Deven – Kelcey</td>
<td>0</td>
<td>0.156</td>
<td>62.5%</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>#2 Yasmin – Miranda</td>
<td>0</td>
<td>0.28</td>
<td>68.75%</td>
<td>0</td>
<td>0.2</td>
</tr>
<tr>
<td>#3 Katie – Danielle</td>
<td>0</td>
<td>0.008</td>
<td>10%</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>#4 Jordan – Pamela</td>
<td>0</td>
<td>0.65</td>
<td>100%</td>
<td>0</td>
<td>0.7</td>
</tr>
<tr>
<td>#5 Alex – Nancy</td>
<td>0</td>
<td>0.163</td>
<td>50%</td>
<td>0</td>
<td>0.4</td>
</tr>
<tr>
<td>#6 Reema - Amanda</td>
<td>0.071</td>
<td>0.271</td>
<td>42.85%</td>
<td>0.05</td>
<td>0.33</td>
</tr>
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</table>
## Student Social Interaction Means Across Phases

<table>
<thead>
<tr>
<th></th>
<th>Mean Rate Social Interaction in Baseline</th>
<th>Mean Rate Social Interaction in Treatment</th>
<th>Percentage of Non-Overlapping Data Points</th>
<th>Mean Rate Baseline Generalization</th>
<th>Mean Rate Treatment Generalization</th>
</tr>
</thead>
<tbody>
<tr>
<td>#1 Deven – Kelcey</td>
<td>0</td>
<td>0.213</td>
<td>68.75%</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>#2 Yasmin – Miranda</td>
<td>0</td>
<td>0.581</td>
<td>75%</td>
<td>0</td>
<td>0.3</td>
</tr>
<tr>
<td>#3 Katie – Danielle</td>
<td>0</td>
<td>0.117</td>
<td>30%</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>#4 Jordan – Pamela</td>
<td>0</td>
<td>0.94</td>
<td>100%</td>
<td>0</td>
<td>0.8</td>
</tr>
<tr>
<td>#5 Alex – Nancy</td>
<td>0.004</td>
<td>0.625</td>
<td>81.25%</td>
<td>0.1</td>
<td>0.8</td>
</tr>
<tr>
<td>#6 Reema - Amanda</td>
<td>0.3</td>
<td>0.924</td>
<td>57.14%</td>
<td>0.35</td>
<td>1.9</td>
</tr>
</tbody>
</table>
Pair #1 Deven & Kelcey

Baseline

Treatment

Treatment Plus Coaching

Rate Per Minute

Observational Probes

Para Social Facilitation
Pair #1 Deven & Kelcey

Rate of Interactions with Classroom Peers

Observational Probes
Pair #2 Yasmin - Miranda

Baseline

Observational Probes

Treatment

Rate Per Minute

Treatment Plus Coaching

Para Social Facilitation

Para Social Facilitation (Generalization)
Pair #2 Yasmin - Miranda

<table>
<thead>
<tr>
<th>Rate Per Minute</th>
<th>Observational Probes</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>0.2</td>
<td>1</td>
</tr>
<tr>
<td>0.4</td>
<td>2</td>
</tr>
<tr>
<td>0.6</td>
<td>3</td>
</tr>
<tr>
<td>0.8</td>
<td>4</td>
</tr>
<tr>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>1.2</td>
<td>6</td>
</tr>
<tr>
<td>1.4</td>
<td>7</td>
</tr>
<tr>
<td>1.6</td>
<td>8</td>
</tr>
<tr>
<td>1.8</td>
<td>9</td>
</tr>
<tr>
<td>2</td>
<td>10</td>
</tr>
<tr>
<td>2.2</td>
<td>11</td>
</tr>
<tr>
<td>2.4</td>
<td>12</td>
</tr>
<tr>
<td>2.6</td>
<td>13</td>
</tr>
<tr>
<td>2.8</td>
<td>14</td>
</tr>
<tr>
<td>3</td>
<td>15</td>
</tr>
<tr>
<td>3.2</td>
<td>16</td>
</tr>
<tr>
<td>3.4</td>
<td>17</td>
</tr>
</tbody>
</table>

Baseline

Treatment

Treatment Plus Coaching

- - - - Rate of Interactions with Classroom Peers

× Rate of Interactions with Classroom Peers (Generalization)
Pair #3 Katie - Danielle

Baseline | Treatment | Treatment Plus Coaching

Rate Per Minute

Observational Probes

- Rate of Interactions with Classroom Peers

Strategies Shared W/ Gen Ed
Pair #4 Jordan - Pamela

Baseline

Treatment

Rate Per Minute

Observational Probes

Rate of Interactions with Classroom Peers

Rate of Interactions with Classroom Peers (Generalization)
Pair #5 Alex - Nancy

Strategies Shared W/ Gen Ed

Baseline

Treatment

Treatment Plus Coaching

Rate Per Minute

Observation Probes

Rate of Interactions with Classroom Peers

Rate of Interactions with Classroom Peers (Generalization)
Pair #6 Reema - Amanda

Baseline

Treatment

Rate
Per Minute

Observational Probes

Strategies Shared W/ Gen Ed

Rate of Interactions with Classroom Peers

Rate of Interactions with Classroom Peers (Generalization)
Comparing Findings with Replication Studies

<table>
<thead>
<tr>
<th>Participating Paraprofessional (from lowest rate to highest rate)</th>
<th>Current Study</th>
<th>Malmgren, Causton-Theoharis, &amp; Trezek (2005)*</th>
<th>Causton-Theoharis &amp; Malmgren (2005)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Paraprofessional 1</td>
<td>0.01</td>
<td>0.07</td>
<td>0.14</td>
</tr>
<tr>
<td>Paraprofessional 2</td>
<td>0.156</td>
<td>0.12</td>
<td>0.15</td>
</tr>
<tr>
<td>Paraprofessional 3</td>
<td>0.16</td>
<td>0.84</td>
<td>0.2</td>
</tr>
<tr>
<td>Paraprofessional 4</td>
<td>0.271</td>
<td>-----</td>
<td>0.29</td>
</tr>
<tr>
<td>Paraprofessional 5</td>
<td>0.28</td>
<td>-----</td>
<td>-----</td>
</tr>
<tr>
<td>Paraprofessional 6</td>
<td>0.65</td>
<td>-----</td>
<td>-----</td>
</tr>
<tr>
<td>Overall Mean</td>
<td>0.255</td>
<td>0.34</td>
<td>0.195</td>
</tr>
</tbody>
</table>

Causton-Theoharis trained paraprofessionals working with students with EBD for 3 hours

Causton-Theoharis trained paraprofessionals working with students with severe disabilities for 3.5-4 hours
Transfer of Training Model from Grossman & Salas (2011)
adapted from Baldwin & Ford (1988)

Workplace Climate & Peer Support (Clarke, 2002; Martin, 2010)
The role of feedback in supportive social networks (Van den Bossche, Segers, & Jansen, 2010)
Mary Kennedy (1999) describe the “problem of enactment” when discussing professional development. Educators are trained outside of their classrooms and the trainers expect their words to impact practices within it.

Her recent review of professional development practices (2016) suggested that:

Practices that focused on strategies and insights, were often more effective in terms of teacher enactment and more impactful on student achievement than professional development models that were centered on teaching prescriptive teaching skills. A focus on ‘strategies based’ PD involves training that helps educators know “when and why they should implement these strategies. The challenge for PD is to make sure teachers understand the ultimate goal well enough that they can decide independently when they will use each strategy.” (p. 955).
Study Limitations

- A-B design is quasi-experimental
- Not all teacher training sessions of paraprofessionals were recorded (2 out of 6 were not. Dependent on teacher self-monitoring for procedural fidelity)
- Treatment integrity measures of Practice Based Coaching procedures and training were not included in this study
- Interobserver agreement collected in 4 of 6 settings (utilizing total agreement protocol)
- Social interactions are variable, and 10-minute observation probes may not be ideal for capturing a full picture of social interactions
Future Research

> Examining how the teachers’ implementation and perceived competence in the training practices impact outcomes on paraprofessional transfer of training

> Deeper analysis of the participating teachers current implementation of “practice based coaching” strategies

> Examining the influence of paraprofessionals comfort with social facilitation, and collaboration strategies with certificated staff
Thank You!

Questions?

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