8-2019

The Effects of Behavior Skills Training and Self-Monitoring on Paraprofessionals' Use of Incidental Teaching Procedures in a Preschool Classroom

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THE EFFECTS OF BEHAVIOR SKILLS TRAINING AND SELF-MONITORING ON PARAPROFESSIONALS' USE OF INCIDENTAL TEACHING PROCEDURES IN A PRESCHOOL CLASSROOM

by

Bayley Thompson

A creative project submitted in partial fulfillment of the

requirements for the degree

of

MASTER OF EDUCATION

in

Special Education

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UTAH STATE UNIVERSITY

Logan, Utah

2019

ABSTRACT

The Effects of Behavior Skills Training and Self-Monitoring on Paraprofessionals' Use of Incidental Teaching Procedures in a Preschool Classroom

by

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Utah State University, 2019

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Children with developmental and cognitive delays often experience deficiencies in language and may qualify for special education intervention, such as services in a preschool program. Incidental teaching, a naturalistic approach to facilitating child language development, is one intervention that children in preschool settings may receive. Children receiving these services are often taught by paraprofessionals who receive training to implement evidence-based practices from a lead teacher. This project examined the effects of behavior skills training (BST) and a self-monitoring package on paraprofessional implementation of incidental teaching procedures. The project included one paraprofessional working in a public preschool classroom. Procedures involved training the participant to implement two incidental teaching strategies: inadequate portions and sabotage. Baseline, intervention, and follow-up data were compared to determine the effects of the training package on the percentage of steps the paraprofessional implemented correctly. Results showed that the BST and self-monitoring package improved the participants' performance.

(45 pages)

PUBLIC ABSTRACT

The Effects of Behavior Skills Training and Self-Monitoring on Paraprofessionals' Use of Incidental Teaching Procedures in a Preschool Classroom

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This project investigated effects of behavior skills training (BST) and self-monitoring on paraprofessionals' use of incidental teaching procedures in a preschool classroom. Target behaviors involved correctly implementing two incidental teaching procedures: inadequate portions and sabotage. During baseline the paraprofessional displayed low levels of correct implementation of incidental teaching procedures. The participant then completed a training which included BST and self-monitoring. In addition to treatment data collection, the paraprofessional completed an incidental teaching questionnaire and a social validity survey as secondary measures. Results showed that the BST and self-monitoring package improved the participants' implementation of correct incidental teaching procedures.

ACKNOWLEDGMENTS

I would like to thank Sarah Pinkelman for everything she has taught me during this project. She was very patient with me and answered all of my questions with a smile. I really valued the opportunity to learn from her. I would also like to thank my committee members, Anne Larson and Kaitlin Bundock, for their time, insight, and help. Finally, I would like to thank my sweet husband and my family, they have cheered me on and kept my spirits high. I appreciate their love and support more than words can express.

Bayley Thompson

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Throughout the early childhood years young children learn to intentionally communicate using various methods including smiling, using sounds and gestures, and joint attention. These beginning skills lay the foundation for more complex language skills (Watt, Wetherby & Shumway, 2006). One such more complex language skill is manding, also described as requesting. A child begins to obtain information and use language to request items he/she needs or wants (Sunberg & Michael, 2001). Children with developmental and cognitive delays often experience deficiencies in language. These children may not have developed foundational communication skills and can qualify for special education services. Early childhood special education services often occur in a preschool classroom, where teachers work on developing language skills (Kohler, Anthony, Steighner, & Hoyson, 2001).

It is vital that early childhood programs focus on language development in young children (Hart & Risley, 1975). An evidence-based approach to help language development in young children is naturalistic teaching. Kohler et al. (2001) explored naturalistic strategies such as incidental teaching. This method refers to specific interactions between an adult and a single child, under naturally occurring circumstances (Hsieh, Wilder, & Abellon, 2011). Researchers found incidental teaching to be a promising strategy for providing young children with opportunities to engage in labeling, description, and spontaneous speech. The adult increases the likelihood of the child responding by arranging motivating operations, or environmental factors, followed by the

immediate delivery of a preferred item (Hsieh et al., 2011). An advantage of incidental teaching is that it can effectively provide opportunities for language learning in all contexts of a student's daily activities. In a preschool setting, incidental teaching can be utilized during many diverse activities both structured (such as academic time in both large and small groups), and unstructured (such as free play activities) (Ryan, Hemmes, Sturmey, Jacobs, & Grommet, 2008). Because incidental teaching takes place in the natural environment, it allows for multiple opportunities to practice. The natural environment is also where a young child may find tangibles and activities that are highly motivating, creating opportunities for rich instruction and learning (Coogle et al., 2013).

Ryan and colleagues (2008) expressed that all adults who encounter students who have language deficiencies should implement incidental teaching methods. Although this is a logical expectation given the well documented efficacy of incidental teaching, it poses a great challenge for adults as it requires the teacher to recognize and create or contrive opportunities to help develop student language in a naturalistic context. These requirements make efficient training and generalization of incidental teaching challenging for teachers who must train paraprofessionals. Although many early childhood special educators have training and experience delivering incidental teaching, other staff within the classroom environment may not. Classroom teachers can’t meet the needs of all students alone. It is vital paraprofessionals receive effective training in order to implement incidental teaching strategies with students in the classroom.

When visiting classrooms that provide care and education to students with disabilities, one will likely find paraprofessionals in addition to the teacher (Giangreco, Suter, & Doyle, 2010). A paraprofessional is an adult working under the supervision of a

lead teacher, often directly with children with disabilities in school settings (Boomer, 1994). Because paraprofessionals are primary service providers in classrooms, effective collaboration and training is a vital aspect to providing special education services in school settings (Giangreco et al., 2010). Giangreco and colleagues stated that paraprofessionals are important in the teaching process and need to receive evidence-based training for them to be effective as instructors.

Many training protocols for paraprofessionals are used, including didactic instruction (consisting of workshops, classes, or lectures), individualized coaching (Walker & Smith, 2015), and live interactive training on the Internet (Morgan, Forbush, & Nelson, 2004). A recent review of literature determined that behavior skills training (BST) is shown to be an effective practice for training paraprofessionals to implement best practice instructional strategies (Wood, Luiselli, & Harchik, 2007). BST consists of four steps: (a) instruction, (b) modeling, (c) rehearsal, and (d) feedback (Ward-Horner & Sturmey, 2012). In the first step, the trainer provides a rationale and a detailed review of the procedures used to implement the practice. The trainer then models correct procedures, often allowing the trainee to collect data on his/her own performance. During the rehearsal step, trainees role play implementing the procedures. Lastly, the trainer provides performance opportunities while giving constructive feedback. Following the initial training, the trainer observes periodically in order to support and maintain the paraprofessionals' skills (Ward-Horner & Sturmey, 2012; Wood, Luiselli, & Harchik, 2007). Continuous feedback is a vital aspect of BST.

BST is effective when teaching a variety of skills to paraprofessionals working with children. Some of these skills include mand training (Sunberg & Michael, 2001),

Picture Exchange Communication systems (Buck, 2012), and incidental teaching (Hsiu, Wilder, & Abellon, 2011). BST requires frequent interactions between the instructor and learner. This level of support may not be feasible in applied settings such as preschool classrooms. Providing performance feedback to paraprofessionals can be both time and resource intensive in these environments (Simonsen, MacSuga, Fallon, & Sugai, 2013). To make training more functional for settings that do not have the time or resources to provide consistent performance feedback, a package that includes a self-monitoring component may be an ideal use of school resources. Two components are included in self-monitoring: self-observation and self-recording (Allinder, Bolling, Oats, & Gagon, 2000). Self-observation is described as becoming self-aware of the absence or presence of the target behavior. Self-recording is the process of collecting data on the occurrence or nonoccurrence of the behavior. Simonsen et al. (2013) suggested that rather than relying on a teacher to observe, collect data, and provide feedback, it may be beneficial to provide paraprofessionals with training to monitor, record, and give feedback on their own performance.

Research on self-monitoring is grounded in the assumption that individuals can govern their own behavior just as they would the behavior of others (Skinner, 1953). Self-monitoring continues to be used widely in literature as researchers explore its effects on various behaviors (Allinder et al., 2000; Petscher & Bailey, 2006). Indeed, it is possible that self-monitoring could be a successful tool when implemented by paraprofessionals.

If paraprofessionals are to use incidental teaching effectively in preschool classrooms, BST coupled with self-monitoring may be one instructional alternative to

didactic instruction (workshops, classes, or lectures) and individualized coaching (Walker & Smith, 2015). Additional research is needed to explore the efficacy of BST and self-monitoring on paraprofessional use of incidental teaching strategies.

Literature Review

Research terms that I used throughout my search include: *incidental, naturalistic, milieu teaching, language facilitation, behavior skills training, and self-monitoring.* My research initially began in ERIC via EbscoHost, Education Source, and PsycInfo using the search term *incidental teaching*. That search produced 99 results. Of those 99 results, 33 of them applied specifically to young children ages 3 to 5 years old. After scanning the abstracts of the 33 articles, I selected nine articles that addressed training individuals such as educators, paraprofessionals, or parents in incidental teaching procedures with young children. Within the articles I performed both an ascendant and descendent search by reviewing the reference page and acquired further research on applicable topics. I found approximately ten articles on incidental teaching. Of those, I examined six articles which seemed most relevant to assessing incidental teaching in a preschool classroom training paraprofessionals.

As my research review developed, I found additional terms that also described incidental teaching. My search expanded to *naturalistic, milieu teaching, and language facilitation.* Those search terms produced approximately 35 results and after further review of each article's abstract, I narrowed down those results to three articles that included preschool aged children and staff training. My advisor S. Pinkelman, contributed two articles on self-monitoring. No research was found specific to BST with a self-monitoring component to increase the performance of a paraprofessional using

incidental teaching strategies. Such research would be useful particularly regarding incidental teaching skills of paraprofessionals.

I was interested in studies targeting incidental teaching, BST, and self-monitoring. The first of these four studies demonstrated the effectiveness of incidental teaching as an evidence-based instructional method for increasing language in young children (Hart & Risley, 1975). In the following paragraphs I will discuss the effectiveness of incidental teaching in promoting language in young children, the efficacy of BST as a method for training staff, and the potential benefit of self-monitoring when training paraprofessionals.

Incidental teaching. Hart and Risley (1975) investigated the effects of incidental teaching procedures on the language progression of 11 children ages 5 to 8 years old in a preschool classroom. The purpose of the intervention was to train the instructors to implement incidental teaching to help increase verbal statements and lengthen compound sentences produced by the children. Researchers began the study by briefly training the instructors to use specific incidental procedures and to build on language opportunities found in the natural environment. A reversal design was used to test the effects of incidental teaching. During baseline, any language or gesture initiated by the child resulted in the delivery of the item requested. Data showed that the children produced low levels of average compound sentences (1.1 to 4.2 compound sentences). During the intervention, the instructor provided a prompt appropriate for the level of interaction provided by the child. Researchers focused on a series of prompts to help evoke more language. For example, the child may approach the instructor with a need and the adult may respond saying, “What do you want?” Following 3 to 5 seconds of wait time, the

instructor prompts the child saying, “You need to tell me. Say, 'toy'.” Additional prompts were issued in an effort to get the child to produce more language. For example, the child may say, “I want truck” and the instructor may respond, “What for?” Results showed an increase in the use of average compound sentences throughout the intervention (5.5 to 12.6 compound sentences). Incidental teaching procedures also led to a variety of language produced by the children suggesting that it did indeed produce a language rich environment. The study results were limited because there were only 11 students, each of them typically developing. Researchers also acknowledged that adults teaching young children with language deficiencies were trained professionals. Instructors currently working with preschool aged children in classrooms are not only teachers but paraprofessionals. Paraprofessionals may not have the educational background to implement correct incidental procedures and may need effective training from a licensed professional teacher. More research is needed for effective training methods for paraprofessionals working with young children with language delays.

Behavior skills training (BST). Schepis, Reid, Ownbey, and Parsons (2001) investigated the effectiveness of training four paraprofessionals in an inclusive preschool to use incidental teaching within the daily routine of five children, ages 3 to 5 years old, with disabilities. The purpose of the study was to examine the effects of a teaching-skills training program which included: (a) instruction, (b) classroom-based instruction, (c) role playing, and (d) feedback on paraprofessionals using correct incidental procedures. During baseline observations, paraprofessionals demonstrated a low percentage of teaching opportunities with correct teaching procedures (0% to 20%). Using a multiple baseline design, researchers provided a training package involving a detailed written

protocol, verbal instructions, and examples. This training session lasted from 60 to 90 min and was conducted individually with each paraprofessional. Following this training session, the researcher accompanied the paraprofessional to the classroom for on the job training and continued constructive feedback. Results indicated that the intervention increased the teaching opportunities implemented correctly by paraprofessionals (75% to 100%). Researchers also noted that during baseline, students were not responding to 50% of the questions asked by paraprofessionals. Researchers concluded that the lack of responding was due to the absence of skills performed by paraprofessionals to support initial questions or instruction to occasion a child's response. Following the intervention, child's use of language increased and no response to staff questions decreased. A potential limitation to the study was that the teaching-skills training program were more intensive and could be difficult to implement in environments with limited time and resources. Future researchers may consider evaluating a more efficient way to train paraprofessionals to use incidental teaching procedures.

Schepis et al. (2001) determined that incidental procedures were effective in an inclusive preschool classroom with young children with disabilities, yet further examination of more effective training methods are needed. Ryan et al. (2008) also demonstrated that paraprofessionals were effectively trained to perform correct incidental teaching procedures using a BST model. The purpose of this study was to evaluate the effects of a BST incidental teaching package on paraprofessionals' use of incidental teaching in an elementary classroom. Participants included paraprofessionals, ranging from 20 to 45 years old, as well as a classroom of young children diagnosed with autism, ranging from 3 to 9 years old. Using a multiple baseline design, researchers conducted

three experiments, each including steps found in evidence-based training models. Training models were designed as follows: (a) individualized training including each portion of the BST; (b) a 20 min training procedure presented to a small group, without the role- playing and feedback portion; and (c) a 30 min training presented to 40 instructional staff members with a 10 min break out session where role-playing and feedback was provided in smaller groups. This model was much more functional, cut out time spent doing on the job training, and simply provided opportunities to practice strategies. Results indicated that the first and third experimental phases depicted the highest rates of correct incidental teaching procedures. These results suggest that BST produced the most effective results for training staff. A potential limitation to this study was that other aspects of staff performance, such as generalization of incidental teaching strategies, were not evaluated.

Self-monitoring. Although Ryan et al. (2008) showed that BST was an effective model for teaching paraprofessionals evidence-based interventions, such as incidental teaching, generalization of these skills in a school setting was not addressed. Petscher and Bailey (2006) examined BST paired with prompting and self-monitoring delivered to paraprofessionals. The paraprofessionals included in this study were new to their current position in a special education classroom (less than one year). In addition to inexperience, none of them had encountered tactile or self-monitoring interventions previously. Researchers evaluated a BST, tactile prompt, and self-monitoring teaching skills package on paraprofessionals' use of correct procedures, while implementing a token economy with students in the classroom. The purpose of the token economy was to increase student on-task behavior. A multiple baseline design across behaviors evaluated effects of

prompting and self-monitoring. Researchers collected baseline data following a one session training. During baseline, the percentage of steps implemented correctly was 0%. Following the implementation of the intervention, participants displayed an increase in the percent of correct steps implemented (90% to 95%). These data depicted an increase in fidelity or accuracy of correct procedures. A potential limitation of this study was the use of a prompt and self-management strategy as a package because they could not assess the relative effects of each. Authors acknowledge that future research should further examine the two separately.

Each of the previously reviewed studies describe critical interventions. The first intervention explored is incidental teaching. Incidental teaching is an effective way to increase manding behavior of students with language deficiencies (Hart & Risley, 1975). Incidental teaching can be implemented throughout structured and unstructured routines, making it a viable intervention for preschool settings (Ryan et al. 2008; Schepis et al., 2001). An important consideration to incidental teaching is the training needed to implement incidental teaching strategies correctly. Although we have identified effective strategies for training staff, they are resource intensive and not feasible in many preschool classrooms. It is possible that a combination of BST and self-monitoring may provide paraprofessionals with the skills needed to correctly implement incidental teaching procedures. In addition to acquiring skills, it is important to assess the effects of BST and self-monitoring in teaching skills across settings, children, and play materials (Petscher & Bailey, 2006; Ryan et al., 2008). The current project will examine the effects of BST and self-monitoring on paraprofessionals' implementation of incidental teaching procedures.

Purpose Statement and Research Questions

The purpose of this project was to examine the effects of BST and self-monitoring on paraprofessional implementation of incidental teaching procedures in a preschool classroom for children with disabilities. The research questions are as follows:

1. What are the effects of behavior skills training and self-monitoring on paraprofessional implementation of incidental teaching procedures, as measured by percentage correct per opportunity on a task analysis checklist?
2. To what extent do paraprofessional self-monitoring data relate to observed treatment integrity data?
3. What is the social validity of the incidental teaching behavior skills training and self-monitoring, as measured by a social validity survey?

Method

Participants

This project included one adult participant, also known as a paraprofessional, currently working in a public early childhood special education (ECSE) classroom. The participant was 44 years of age and had an educational background consisting of a high school diploma. Criteria for the adult participant included (a) a low rate of absenteeism (no more than 10 days absent throughout the school year), and (b) no prior training in naturalistic teaching procedures. The researcher assessed if the criteria was met by reviewing personal records to ensure the paraprofessional had not been absent for more than 10 days. To evaluate prior training in naturalistic teaching procedures the researcher had each of the four paraprofessionals in the classroom complete an incidental teaching questionnaire (Appendix A). The paraprofessionals were asked to define and give examples of the incidental teaching strategies. A paraprofessional that met criteria was offered the opportunity to participate. The other three paraprofessionals were excluded from the study due to absenteeism and prior training in naturalistic teaching procedures.

The participant implemented incidental teaching procedures with an estimated 11 students currently receiving special education services in the preschool classroom. Characteristics of students in the classroom included (a) 3 to 5 years of age; (b) qualified for special education services under one of the thirteen categories outlined in the Individuals with Disabilities Act (2004), and (c) had individualized education plan (IEP) goals relating to increasing mean length of utterance (MLU). Students who had a specific behavior intervention plan were excluded from the project. Since the purpose of this study was to observe changes in adult behavior, children working with the

paraprofessional were not included as participants in the study and no further detailed information about their age, diagnosis, or language ability is reported.

Setting

The project took place in a classroom on a public school campus which included only children who were receiving special education services (i.e., self-contained). In the preschool classroom, there were seven to eleven students, attending a half day of school (morning session 9:15-11:45 am, afternoon session 1:00-3:30 pm), and two to five adults (lead teacher, paraprofessionals, and a speech pathologist) that provided services throughout the school day. The classroom was approximately 42 ft. wide and 55 ft. long, contained five tables, 24 chairs, a rug, and toys. Within the classroom, there was an area for large group instruction, three tables used for academic instruction, and an area for free play activities. Sessions occurred in the classroom areas designed for free play activities. Before the researcher conducted the project, the paraprofessional worked with students using language facilitation strategies such as wait time, modeling (I do, we do, you do), and gave students the opportunity to engage in language related to their IEP goals. Student IEP goals included participating in large and small group activities by asking and answering ‘wh’ questions, expanding mean length of utterance (MLU), and identifying various vocabulary words in an effort to expand language. In this project the paraprofessional expanded on their current language facilitation strategies by learning incidental teaching strategies.

Informed Consent

The selected paraprofessional participant was offered the opportunity to provide informed consent by signing an informed consent form approved by Utah State

University Institutional Review Board. This form identified individuals conducting the project and their credentials, the basic purpose for the project, and the potential benefits and risks that may result from participation. The researcher included a detailed statement explaining that participation was not required and that there would be no penalty given to those who did not consent or who withdrew from the project at any time.

Materials

Materials used in this project included toys, an instructor evaluation form, BST protocols, paraprofessional self-monitoring checklists, incidental teaching questionnaire, social validity survey, and training videos. Toys included manipulatives found in the classroom that were used throughout daily routines, such as play-doh, trains, blocks, and cars. The instructor evaluation form, BST protocols, paraprofessional self-monitoring checklist, incidental teaching questionnaire, and social validity survey are described in the measures section.

Two training videos were created using a camera to capture both audio and video. Each of the videos were made after the school day was completed. Training videos were 5 min, and included four to five examples for each of the targeted incidental teaching strategies (i.e., inadequate portions and sabotage). In the videos, the researcher (and lead teacher) played the role of the participant (i.e., paraprofessional) and one of the researcher's colleagues played the role of the student. Each video was an accurate and fluent demonstration of all key components included in one of the two targeted incidental teaching skills. Videos were recorded in the preschool classroom in the same area the participant performed the skill. Each video also included the same play materials the participant used with each student. The training videos were reviewed by a Utah State

University faculty member (with expertise in coaching adults to use naturalistic language interventions) to ensure clarity and accuracy of information (see instructor evaluation form; Appendix B). Following this review, the training videos were copied onto an iPad that was available for the participant to use.

Measures

In this project, the researcher collected data on the participants' percentage of correct incidental teaching steps per opportunity. Data collection occurred during baseline, intervention, and follow-up. The participant also self-monitored using a rating checklist, completed an incidental teaching questionnaire, and participated in a social validity survey.

Participant Use of Incidental Teaching Strategies. The researcher collected direct observation data on paraprofessional implementation of incidental teaching strategies using the instructor evaluation form (Appendix B). The instructor evaluation form task analyzed the implementation of inadequate portions and sabotage. For each item in the task analysis the researcher marked a "+" if the participant implemented that step correctly, a "–" if it was implemented incorrectly or omitted, and a "0" if there was no opportunity to implement that step in the task analysis.

***Incidental strategies*.** The researcher observed and collected treatment data on the participants' percentage of correct incidental teaching steps per opportunity. In addition to the steps in inadequate portions and sabotage as described below, the data sheet also included procedures for how the paraprofessional should respond if the student did not initiate engagement with the play materials. In such situations, the participant was to remove the materials and present new ones. If the student was still not engaged with the

materials, the session would be ended. Because students were actively engaged with the materials during all sessions, the participant did not need to implement these steps and data were not collected on these steps in the protocol. Below is a description of the steps in implementing inadequate portions and sabotage.

Inadequate portions. Inadequate portions was defined as providing small amounts of a desired material in an attempt to evoke the student's utterance for more of the material. Correct implementation of inadequate portions included the following steps: (a) following a student's utterance, the participant delivered an inadequate portion of the material, (b) waited expectantly for 3 to 5 sec, and (c) delivered more of the desired material contingent on the student's utterance. For example, during free play the student verbally stated "I want play-doh," the participant then gave a small portion of play-doh, while waiting expectantly for the student to provide another utterance for play-doh. Following the student utterance the participant then gave another small portion of play-doh. If the student did not provide an utterance, the participant followed a prompting procedure: (a) ask a question (e.g., "What do you want?"), (b) provide a verbal model (e.g., "Play-doh please"), and (c) give a mand model (e.g., "Say play-doh please").

Sabotage. Sabotage was defined as planning an activity for the student to engage in without providing all the needed materials for the student to complete the task. By not providing all of the needed materials this evoked an opportunity for the student to identify items needed for the completion of the activity, and then request the item (Roberts, Kaiser, Wolfe, Bryant, & Spidalieri, 2013). Correct implementation of sabotage included the following steps: (a) the participant gathered items needed for the completion of an activity, (b) delivered some of the items but not all to the student, (c) left the

missing item in the student's view but out of reach, (d) waited expectantly for 3 to 5 sec, and (e) reinforced the student with praise while simultaneously providing the missing item contingent on the student's utterance. For example, while playing with trains, the participant provided trains and only one piece of the train track. The other pieces of the train track were in the student's view but out of reach, in order to evoke student vocalization to complete the activity. If the student did not provide an utterance, the participant followed a prompting procedure: (a) ask a question (e.g., "What do you want?"), (b) provide a verbal model (e.g. "Track please"), and (c) give a mand model (e.g., "Say track please").

Self-monitoring incidental teaching strategies. The participant reflected on her own performance of the targeted incidental teaching strategies using the self-monitoring checklist (Appendix F). The self-monitoring checklist prompted the participant to rate herself on a scale from 1 to 4. The scale consisted of (1) didn't implement any steps; (2) did at least one step, (3) did most steps, (4) implemented all steps correctly. The participant continued completing the self-monitoring checklist until she met the mastery criterion for each incidental teaching strategy, according to the researchers' observational data.

Incidental teaching questionnaire. The participant filled out the incidental teaching questionnaire. The incidental teaching questionnaire was used as a pretest and posttest measure of understanding of the incidental teaching strategies (Appendix A). The questionnaire required the participant to define and give examples for each of the incidental teaching strategies.

Social validity. The participant was asked to complete a social validity survey

(Appendix G). The survey included ten questions and was printed on a sheet of paper. The participant reflected on her own performance of the targeted incidental teaching strategies and rated herself on a scale from 1 to 4. The scale consists of (1) didn't implement any steps; (2) did at least one step, (3) did most steps, (4) implemented all steps correctly. The participant continued completing the self-monitoring checklist until she met the mastery criterion (80% through observational data collection) for each incidental teaching strategy, according the researchers observational data.

Procedure

There were five steps in the project: (a) baseline, (b) training, (c) intervention sessions, which also included data collection, constructive feedback given by the researcher, and self-monitoring, (d) questionnaires, which included incidental teaching questionnaire and social validity survey, and (e) follow-up data collection.

Baseline. During free play activities, the researcher observed the participant implementing incidental teaching strategies prior to receiving the BST and self-monitoring package. Each of the three observations were 5-20 min long and occurred in the ECSE classroom during free play activities. The researcher asked the participant to, "set up the free play area and implement incidental teaching strategies with the first student that comes over to play with you." Free play activities took place around 10:15 am in the morning session and 2:00 pm in the afternoon session. Free play activities occurred during small group sessions. During small group sessions the class was split into two groups. One group of three to six students attended two small group activities that primarily focused on teaching academics. The other group of three to six students attended four free play stations. The researcher arranged the classroom so that the

participant collected materials (the same play materials used in training videos), arranged the play environment and interacted with one student at a free play station. The participant then had the opportunity to implement incidental teaching strategies.

Baseline data were collected during three 5 min observations (or until stability was obtained in the data). During baseline the researcher collected data on participants' percentage of correct incidental teaching strategies per opportunity. The day after the collection of baseline data, the participant received the treatment package (described below).

Treatment package. Following baseline, the participant was trained to use the incidental teaching strategies utilizing a BST and self-monitoring package. The researcher administered the treatment package by following the training procedures guideline outlined in Appendix C. The introductory session of training took place on a Monday and was one hour long. Following the introductory session of training the researcher observed and collected data on the participant implementing incidental teaching strategies in the classroom five observations across the span of three days (1 time per session for a total of two times per day). The researcher gave constructive feedback immediately following each observation. When giving constructive feedback, the researcher included comments the participant did well and things to improve on for the next observation.

Instruction. Training began with a detailed rationale describing why implementation of incidental teaching is important, as well as an explanation about the behaviors that were needed to perform each of the two specific strategies (i.e., sabotage and inadequate portions). The researcher provided the participant with both a verbal and

written protocol for each incidental teaching strategy (Appendices D, and E). The written protocol included a summary of precisely what the participant should do in a variety of situations. Each of these incidental teaching strategies were described in detail in the measures section.

Modeling. Next, the researcher used training videos to model each skill. Training videos depicted examples of correct incidental teaching strategies, inadequate portions and sabotage. The participant was initially asked to view the training videos twice during modeling. These videos were discussed in detail under the materials section.

Rehearsal. Following the viewing of the training videos, the participant role-played with the researcher. The participant performed each step while receiving verbal coaching and detailed instructions by the researcher. During the role-play, the researcher paused at certain points to help the participant attend to important steps demonstrated. The participant viewed the training videos three more times, until she fluently demonstrated each skill during three consecutive role plays with 100% accuracy.

Feedback. While the participant engaged in each role-play, she performed the steps independently while receiving supportive and corrective feedback from the researcher. Supportive and corrective feedback entailed describing to the participant exactly what she performed correctly and incorrectly. Corrective feedback also included how the participant could improve any aspects of the target skill. Following the training the researcher continued to provide ongoing feedback during all observations completed during treatment. The researcher provided ongoing feedback until the participant met mastery criterion (80% or above for each incidental teaching strategy), for a total of five observations. The researcher did not provide feedback during the follow-up probe.

Self-monitoring training. At the end of training the researcher gave the participant an explanation of what self-monitoring was, how to use it appropriately and what would be expected of her during this project.

Booster training. In addition to feedback immediately following each observation, the participant received booster training sessions. These trainings were approximately 15 min long and occurred at the end of each school day, approximately 11:45 am (morning session) or 3:30 pm (afternoon session). During the first 5 to 10 min of each booster session, the participant had the opportunity to ask questions and received specific feedback. The researcher and participant then spent 5 to10 min viewing training videos, and role-playing. Booster training sessions occurred on days the participant performed incidental teaching strategies at 80% or below. Booster sessions continued until the participant meet criterion (80% or above for each incidental teaching strategy).

Self-monitoring. Immediately after each observation, the participant stepped out of the room for 3 to 5 min to complete a self-monitoring checklist (Appendix F). The participant reflected on her own performance of the targeted incidental teaching strategies and rated herself on a scale from 1 to 4. The scale consists of (1) didn't implement any steps; (2) did at least one step, (3) did most steps, (4) implemented all steps correctly. The participant continued completing the self-monitoring checklist until she met the mastery criterion (80% through observational data collection) for each incidental teaching strategy, according the researchers observational data.

Treatment data collection. The day following the BST and self-monitoring package, the participant had the opportunity to implement incidental teaching strategies with students while the researcher observed and collected data. The researcher collected

data on the percentage of correct incidental teaching strategies implemented per opportunity, just as during baseline. Data collection occurred five observations across the span of three days (1 time per session for a total of two times per day). Treatment data collection took place during 5 min observations, up to 20 min as needed (the observation began when a student initiated play) and continued until the participant met criterion. The researcher observed the participant implementing incidental teaching strategies with the first student that entered the free play space and initiated play. Treatment data were collected until the participant met mastery criterion. The participant met mastery criterion over the span of five observations. Mastery criterion was defined as three consecutive observations at 80% or above for each incidental teaching strategy.

Interobserver Agreement (IOA). The researcher collected primary treatment data and a student teacher collected IOA data. The researcher trained the student teacher for 1 hour in the classroom before the school day. Training for the student teacher included modeling of the procedures, and role-playing. During the modeling portion of training, the researcher demonstrated correct and incorrect implementation of the incidental teaching procedures for each of the incidental teaching strategies. During role-play the student teacher viewed training videos and recorded data on correct implementation of incidental teaching strategies, using the instructor evaluation form (Appendix B). While viewing training videos, the researcher paused at certain points to help the student teacher attend to important steps demonstrated. Training criterion was expected to be 90% or above for three consecutive sessions before recording data during live student observations.

The student teacher independently observed and collected data on participant's

implementation of incidental teaching strategies (inadequate portions and sabotage) once during baseline and intervention, which was 25% of all observations. The definition for agreement is when both observers record a correct or incorrect response made by the participant. IOA was calculated by dividing the total number of agreements for each component by the number of disagreements plus agreements, and multiplied by 100 to yield a percentage (Cooper, Heron, & Heward, 2007). IOA was 100% for all observations across baseline and intervention.

Incidental teaching questionnaire. The day after the final collection of treatment data, before the researcher collected follow-up data, the participant to fill out an incidental teaching questionnaire (Appendix A). The questionnaire required the participant to define and give examples for each of the incidental teaching strategies. The questionnaire was printed on a sheet of paper and filled out in the preschool classroom after student dismissal. The questionnaire asked the same questions used to determine participant eligibility.

Social validity. The day after collection of treatment data the participant completed a social validity survey (Appendix G). The survey was printed on a sheet of paper. The participant completed the survey and return it to the researcher the following day.

Follow-up. The researcher conducted one follow-up probe two weeks following the final data point in the intervention condition. The researcher observed the participant implementing incidental teaching strategies in the classroom during free play activities, just as was done during baseline and treatment conditions. Follow-up data collection took place during one 5 min observation.

Results

Figure 1 displays the percentage of correctly implemented incidental teaching strategies (inadequate portions and sabotage) per opportunity across baseline and intervention. The top panel in figure 1 depicts the participant's percentage of correct steps implemented for inadequate portions. The bottom panel depicts the participant's percentage of correct steps implemented for inadequate portions. During baseline, the participant implemented 20% of steps correctly for both incidental teaching strategies. Baseline observation data depicts stability over the span of three observations. Following the treatment package, the participant's percentage of correct steps implemented for both incidental teaching strategies showed an immediate increase and change in level. No overlap between baseline and treatment sessions occurred.

Inadequate portions. The top panel in figure 1 shows the participant's performance increased from 20% during baseline to 80% during observation 4, for inadequate portions. An upward trend in the percentage of correct steps is seen with some variability between observation 5 and 6. During observation 5, the participant was interacting with two students, a situation that had not previously occurred. The participant needed specific feedback and additional modeling on how to implement inadequate portions with more than one student. This coaching took place during feedback and booster sessions each day after student dismissal. The participant met mastery criterion during the final observations 6, 7 and 8. Follow-up data was collected two weeks after the final observation. Data shows the participant maintained a high percentage of steps correct for inadequate portions, scoring 80% on this observation.

Sabotage. The bottom panel in figure 1 depicts the participants' percentage of

correct steps implemented for sabotage. During baseline the participant implemented 20% of steps correctly. The participant's performance increased from 20% during baseline to 100% during observation 4. The participant continued to implement sabotage with 100% accuracy during observation 5, 6, 7, and 8. Follow-up data was collected two weeks after the final observation. Data shows the participant maintained a high percentage of steps correct for sabotage, scoring 100% on this observation.

Figure 1 also depicts the results of the participants' self-monitoring checklist. The top panel of figure 1 shows the participants reported self-monitoring results for inadequate portions. Initially the participant reported they completed most of the steps for inadequate portions and gave themselves a rating of 3 (*Did most steps*). The participant continued reporting a rating scale of 3 during observations 5, 6 and 7. On the final observation the participant awarded themselves a 4 and felt they complete each step of inadequate portions correctly. When comparing treatment data and the self-monitoring results for inadequate portions, the researcher noted 100% implementation by session 6, the self-monitoring data was lower until a match occurred in the last intervention session (session 8).

The bottom panel in figure 1 displays the participants reported self-monitoring results for sabotage. Initially the participant reported they completed at least one step of sabotage correctly and gave themselves a rating of 2. The participant then displayed some variability throughout observations 6, 7 and 8. When comparting treatment data and the self-monitoring results the participant never awarded themselves a 4 on the self-monitoring rating scale but implemented steps of sabotage with 100% accuracy.

Figure 2 represents data collected from the social validity survey. The participant

responded to ten questions using a rating scale from 1 to 5. The scale consists of (1) strongly disagree; (2) disagree, (3) neutral, (4) agree, and (5) strongly agree. The participant reported a rating of 5 to all of the questions except to questions addressing self-monitoring. The participant gave questions seven and eight a rating of 4. Those questions were stated as follows: (1) by self-monitoring, I was more likely to reflect on how accurately I implemented each incidental teaching strategy, and (2) self-monitoring helped me find ways to better my implementation of each incidental teaching strategy. The participant responded in favor of helping students in the preschool classroom acquire more language, using incidental teaching strategies helped her support student language development, and felt participating in the project was worthwhile.

The day after the final collection of treatment data, the participant filled out an incidental teaching questionnaire (Appendix A). Comparisons between the participant-completed incidental teaching questionnaire before and after intervention revealed that the participant had a much more comprehensive understanding for each of the incidental teaching strategies. Initially, the participant reported that inadequate portions were "giving a child a gallon of milk for snack" She described sabotage as "creating a situation where you alter the outcome so the student fails or succeeds." Following the intervention, the participant gave a much more thorough and accurate explanation for both incidental teaching strategies. The participant described inadequate portions as "a technique used where students are given small amounts of needed items in order to initiate them to verbally request more." She described sabotage as "a strategy used to initiate a student to identify needed items and to request or ask for the items." The participant also gave a through explanation of how she implemented both strategies in the classroom when asked

to give an example.

Discussion

This project examined the effects of BST and self-monitoring on paraprofessionals' use of incidental teaching procedures (inadequate portions and sabotage) in a self-contained preschool classroom. Results indicated that BST and self-monitoring is an effective method to train paraprofessionals to implement inadequate portions and sabotage. During baseline, the participant implemented 20% of steps correctly during each observation for both incidental teaching strategies. Following BST and self-monitoring the participant's performance increased to 80% for inadequate portions, and 100% for sabotage. Follow-up data were collected two weeks after the final observation. Data showed the participant maintained a high percentage of steps correct for both strategies, between 80-100%, with no overlap with baseline. Further examination of inadequate portions performance and self-monitoring data depict some variability but overall as the participant's percentage of steps completed correctly increased the self-monitoring results maintained or increased. When examining sabotage performance and self-monitoring data, the participant never awarded themselves a 4 on the self-monitoring rating scale but implemented sabotage with 100% accuracy.

On the social validity survey, the participant reported a rating of 5 (strongly agree) to all of the questions except to the two questions addressing self-monitoring. For these two questions, she rated a 4 (agree). The results of this project provide valuable implications for practice and future research.

Implications for Practice

Incidental teaching is an evidence-based approach to help students in an ECSE

classroom practice and develop their language during natural routines and contexts. The natural environment is where students may find tangibles and activities that are highly motivating, creating opportunities for rich instruction in learning (Coogle et al., 2013). Because incidental teaching creates a more language-rich classroom environment, it is important that all professionals working in preschool classrooms learn to implement incidental teaching strategies.

Ryan and colleagues (2008) expressed that all adults who work with students with language delays should implement incidental teaching methods. Although the use of incidental teaching strategies is a recommended practice, training all staff to implement these strategies can be challenging. Incidental teaching requires that the adult recognizes and creates or contrives opportunities to evoke student language in the natural environment. This is a complex skill that can be challenging to teach in classroom contexts where resources (e.g., time, materials) are scarce. The current project used a BST and self-monitoring treatment package to train the paraprofessional to implement inadequate portions and sabotage. Both BST and self-monitoring have been shown to be an effective means of training adults (Allinder, Bolling, Oats, & Gagon, 2000; Wood, Luiselli, & Harchik, 2007). Results indicate that this package is an effective way to train paraprofessionals to implement incidental teaching strategies. Furthermore, the self-monitoring component may provide additional support to paraprofessionals when time and resources are limited in the classroom. Self-monitoring could be resource saving in classrooms because it makes self-reflection a priority in the paraprofessional's schedule and doesn't require teacher involvement. During self-reflection the paraprofessional may independently identify errors in their own performance. The teacher may have addressed

similar errors when giving specific feedback. Previous research has demonstrated the efficacy of self-monitoring in improving performance (Allinder et al., 2000; Petscher & Bailey, 2006), and this project provides an applied demonstration of its use. It is important to note that although self-monitoring may be an efficient way to improve implementation behavior, because adults are not always accurate reporters of their behavior self-monitoring should not be used as a valid measure of fidelity. It is also important to note that self-monitoring may not have had a significant impact on results. Based on the data collection for sabotage, showing inconsistencies in what the paraprofessional thought she was doing and what she was actually doing.

Implications for Research

This project breaks new ground by combining BST and self-monitoring to effectively train paraprofessionals to use incidental teaching strategies. While previous research has examined the effects of BST and self-monitoring in isolation (Allinder, Bolling, Oats, & Gagon, 2000; Wood, Luiselli, & Harchik, 2007), to the author's knowledge, this is the first project to combine BST and self-monitoring to train paraprofessionals to implement incidental teaching strategies in a preschool classroom. This combination provides a novel and effective means to train preschool staff in classrooms. The results of this project present several important areas for future research.

First, future research should be conducted including a larger number of participants using research designs that include experimental control. Including a larger number of participants could provide further evidence that BST and self-monitoring is an effective way to train paraprofessionals in a classroom to implement evidence-based procedures. Additionally, researchers could include participants who come from diverse

cultural backgrounds such as socioeconomic status, different race, urban and rural living environments, and so forth.

Future research could further examine how often participants need booster sessions. In this project booster sessions were held after each session the participant did not meet mastery criterion. Future researcher could include fewer booster sessions and monitor how quickly the participants' performance improves. Providing fewer booster sessions may be more functional in environments that have limited time and resources.

Lastly, future research could examine how often participants should self-monitoring or whether participants should use a rating scale or other metrics to self-record. Researchers could also assess the materials the participant uses to self-record. In this project the participant used a pencil and paper to self-record but future research could evaluate the use of accessible technology in effort to make self-recording readily available and user friendly.

Limitations

This project has several limitations that should be considered. One such limitation is that there was only one participant. Because there was only one participant, this project may not account for differences that could result with a larger and more diverse group of participants, and results may not be generalized to other populations. Another limitation to the project is that sessions only occurred during free play activities. Only implementing the incidental teaching strategies during free play activities did not give the participant ample opportunity to implement this skill with a variety of students or in a variety of settings. Results of this study do not provide information about whether the skills learned in the free play setting would transfer to other settings and with other

students. Another limitation is that no data were collected on child behavior. Without data on child behavior there is no evidence that the incidental teaching strategies improved their language outcomes; however, previous research suggests a positive relation between adult use of incidental teaching and child language outcomes.

Another limitation is that because BST and self-monitoring were both included in the training package it is unknown the individual effects for each of those components. Additional analysis of each component (BST and self-monitoring) individually would be needed to determine independent effects of each aspect of the training package. A final limitation is that because there was only one participant the social validity data could not be anonymous. It is also important to note that the researcher had a supervisory role over the paraprofessional in the regular work setting. Due to the nature of the relationship between the researcher and paraprofessional it is difficult to know how the participant really felt about the goals, procedures, and outcomes of the study. However, it is also important to note that the paraprofessional was very committed to the intervention and reported practicing the strategies at home with her family.

General Conclusion

Incidental teaching is a remarkable teaching method that allows for rich language instruction to occur in a natural context. Unfortunately, most classroom staff are not trained to implement incidental teaching and embed language opportunities throughout typical classroom routines. This project provides preliminary evidence of the effectiveness of a treatment package in training paraprofessionals to implement incidental teaching strategies (inadequate portions and sabotage) in special education preschool classrooms. This project provides some guidance to teachers on how they can train their

staff to implement incidental teaching in their classrooms. With additional research to specify methods and expand to other incidental teaching strategies, more paraprofessionals can be efficiently trained to use incidental teaching and thus more students will have their language supported.

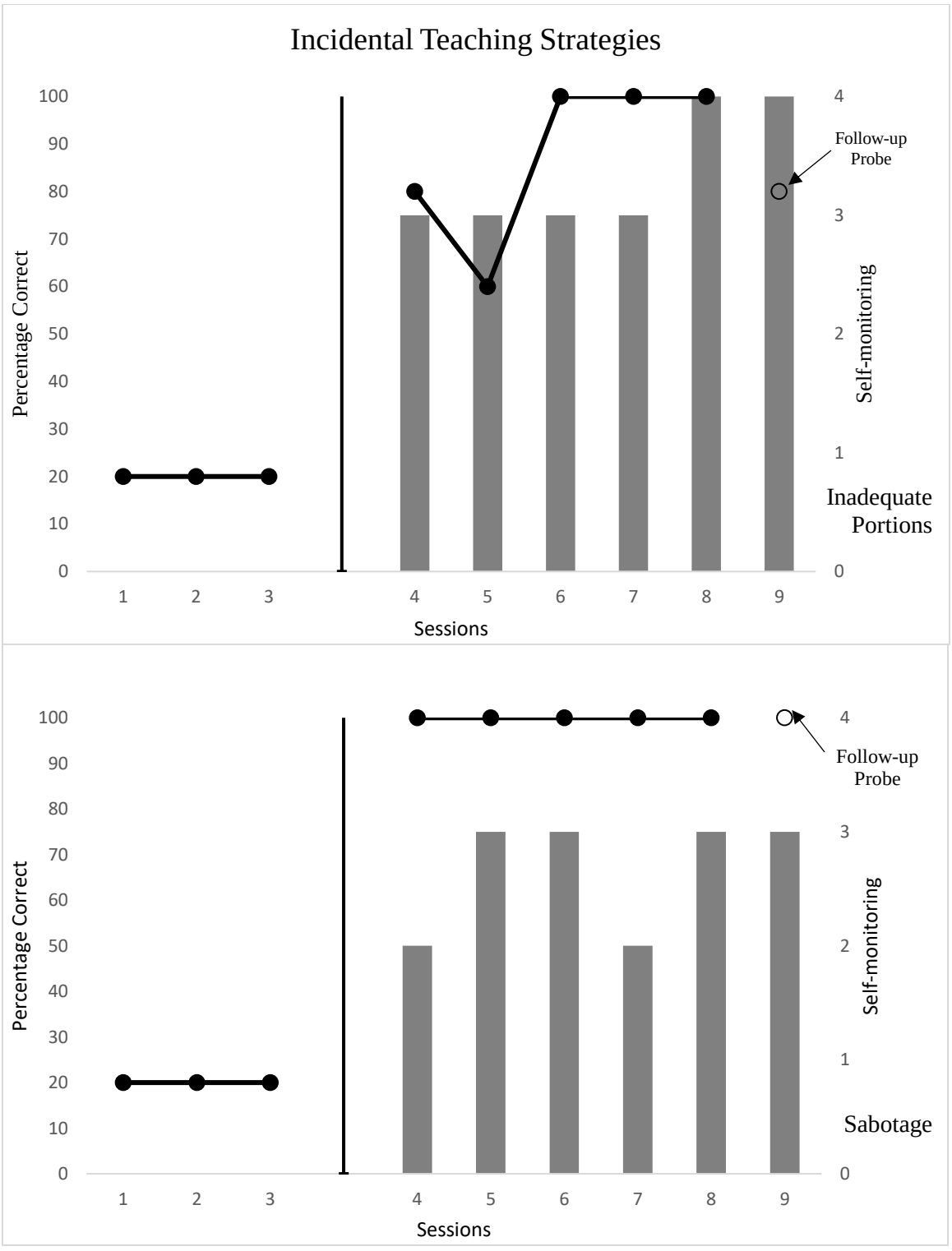

Figure 1. Data on participant percentage of correct steps per opportunity for incidental teaching strategies during baseline, treatment and maintenance probe. Data on participant self-monitoring rating scale for incidental teaching strategies.

Statement	Participant Rating
1. Incidental teaching strategies help students acquire more language.	5
2. Incidental teaching strategies helped me effectively support student language development.	5
3. The detailed rational, given during training, for each strategy helped increase my understanding.	5
4. The training videos were a useful tool to help me learn each step to implement the incidental teaching strategies.	5
5. I was able to better my skills by rehearsing implementing each of the incidental teaching strategies.	5
6. Receiving feedback after each observation helped me better understand how to implement incidental teaching strategies.	5
7. By self-monitoring, I was more likely to reflect on how accurately I implemented each incidental teaching strategy.	4
8. Self-monitoring helped me find ways to better my implementation of each incidental teaching strategy.	4
9. Incidental teaching is a useful tool.	5
10. I found my participation in this project worthwhile.	5

Note. 1 = strongly disagree; 2 = disagree; 3 = neutral; 4 = agree; 5 = strongly agree

Figure 2. Data on participant social validity survey.

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Appendix A. Incidental Teaching Questionnaire

Please answer the following

1. Define and give an example of inadequate portions

2. Define and give an example of sabotage

Appendix B. Instructor Evaluation Form

Date: _____ Time began: _____Time ended: _____

STEPS FOR INADEQUATE PORTIONS	+ = Completed the step – = Didn't complete the step 0 = Opportunity was not presented
1. Gather materials	
2. Deliver an inadequate portion of preferred stimulus	
3. Place materials within a foot of child	
4. Wait expectantly (looking at student) 3-5 sec	
If child does provide an utterance: 5. Deliver more of the preferred stimulus contingent on child's utterance	
If child does NOT provide an utterance: 5. Prompting Procedure - Ask a question: "What do you want?" - Provide a verbal model: "_____ please." - Provide a mand model: "Say _____ please."	

STEPS FOR SABOTAGE	+ = Completed the step – = Didn't complete the step 0 = Opportunity was not presented
1. Gather materials	
2. Deliver some of the items BUT not all to the student	
3. Leave missing item in student's view but out of reach	
4. Wait expectantly (looking at student) 3-5 sec	
If the child does provide an utterance: 5. Deliver verbal praise while simultaneously providing the missing item for the completion of the activity contingent on child's utterance	
If child does NOT provide an utterance: 5. Prompting Procedure - Ask a question: "What do you want?" - Provide a verbal model: "_____ please." - Provide a mand model: "Say _____ please."	

Appendix C. Training Procedures Guideline

Date: _____ Time Started: _____ Time Ended: _____

Procedures	+= Completed -= Not Completed
Instruction: In the first step, the trainer provides a rationale and a detailed review of the procedures used to implement the practice.	
Model: The trainer then models correct procedures, often allowing the trainee to collect data on his/her own performance.	
Rehearsal: During the rehearsal step, trainees role play implementing the procedures. During rehearsal the trainer may pause at certain points to help the paraprofessional attend to important steps that are being demonstrated.	
Feedback: Lastly, the trainer provides performance opportunities while giving constructive feedback.	
Explanation of Continuous Feedback: Following the initial training, the trainer observes periodically in order to support and maintain the paraprofessionals' skills	
Self-Monitoring: Two major components • Self-observation is defined as becoming self-aware of the absence or presence of the target behavior • Self-recording is described as collecting data on the occurrence or nonoccurrence of the target behavior	

Appendix D. Inadequate Portions Protocol

Rational: Incidental teaching is an evidence-based method to teach language to young children. A specific incidental teaching strategy is inadequate portions. Inadequate portions are defined as providing small amounts of a desired material in attempt to evoke student utterance for more of the material. Following a student's utterance, the participant will (a) deliver an inadequate portion of the material, (b) wait expectantly, and (c) deliver more of the desired material contingent on the student's utterance. If the student does not provide an utterance, the participant will follow a prompting procedure, to include (a) asking a question (e.g., "What do you want?"), (b) providing a verbal model (e.g., "Play-doh please"), and (c) giving a mand model (e.g., "Say play-doh please").

Examples:

- The participant has materials in his/her possession. The participant will give a small amount of play-doh to the student and wait expectantly while looking at the student. The participant will then deliver more of the play-doh contingent on the child's mand "more please," or "I want more play-doh please."
- The participant has materials in his/her possession. The participant will give a piece of the train track to the student and wait expectantly while looking at the student. The participant will then deliver another piece of the train track contingent on the child's mand of "more please," or "I want more train track please."

Video Modeling:

STEPS FOR INADEQUATE PORTIONS	+ = Completed the step – = Didn't complete the step 0 = Opportunity was not presented
1. Gather materials	
2. Deliver an inadequate portion of preferred stimulus	
3. Place materials within a foot of child	
4. Wait expectantly (looking at student) 3-5 sec	
If child does provide an utterance: 5. Deliver more of the preferred stimulus contingent on child's utterance	
If child does NOT provide an utterance: 5. Prompting Procedure - Ask a question: "What do you want?" - Provide a verbal model: "_____ please." - Provide a mand model: "Say _____ please."	

Appendix E. Sabotage Protocol

Rational: Incidental teaching is an evidence-based method to teach language to young children. A specific incidental teaching strategy is sabotage. Sabotage is defined as planning an activity for the student to engage in without providing all the needed materials for the student to complete the task. Sabotage is a strategy that requires students to identify items needed for the completion of the activity and then request the item (Roberts, Kaiser, Wolfe, Bryant, & Spidalieri, 2013). The participant will (a) gather items needed for the completion of an activity, (b) deliver each of the items except for one to the student, (c) leave the missing item in the student's view but out of reach, (d) wait expectantly, and (e) reinforce with praise while simultaneously providing the missing item contingent on student's utterance. If the student does not provide an utterance, the participant will follow a prompting procedure, to include (a) asking a question (e.g,. "What do you want?"), (b) providing a verbal model (e.g. ,"Track please"), and (c) giving a mand model (e.g., "Say track please").

Examples:

- While playing with trains the participant will (a) provide train materials, (b) deliver only one piece of train track, (c) leave the other tracks in the child's view but out of reach, (d) wait expectantly, and (e) following a mand from the child, reinforce with verbal praise while simultaneously providing the missing train track for the completion of the activity.
- While playing with the trains, the participant will provide the box trains with the lid taped on. The taped lid will evoke manding for the child to start the activity.

Video Modeling:

STEPS FOR SABOTAGE	+ = Completed the step – = Didn't complete the step 0 = Opportunity was not presented
1. Gather materials	
2. Deliver some of the items BUT not all to the student	
3. Leave missing item in student's view but out of reach	
4. Wait expectantly (looking at student) 3-5 sec	
If the child does provide an utterance: 5. Deliver verbal praise while simultaneously providing the missing item for the completion of the activity contingent on child's utterance	
If child does NOT provide an utterance: 5. Prompting Procedure - Ask a question: "What do you want?" - Provide a verbal model: "_____ please." - Provide a mand model: "Say _____ please."	

Appendix F. Self-Monitoring Checklist

Date:_____ Activity: _____

Inadequate Portions

1.	Didn't implement any steps of inadequate portions
2.	Did at least one step of inadequate portions
3.	Did most steps of inadequate portions
4.	Implemented all steps of inadequate portions correctly

How can I improve my performance next time:

Sabotage

1.	Didn't implement any steps of sabotage
2.	Did at least one step of sabotage
3.	Did most steps of sabotage
4	Implemented all steps of sabotage correctly

How can I improve my performance next time:

Appendix G. Social Validity Survey

This questionnaire consists of 10 items. For each item, please indicate the extent to which you agree or disagree with each statement.

Question	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
1. Incidental teaching strategies help students acquire more language.	5	4	3	2	1
2. Incidental teaching strategies helped me effectively support student language development.	5	4	3	2	1
3. The detailed rational, given during training, for each strategy helped increase my understanding.	5	4	3	2	1
4. The training videos were a useful tool to help me learn each step to implement the incidental teaching strategies.	5	4	3	2	1
5. I was able to better my skills by rehearsing implementing each of the incidental teaching strategies.	5	4	3	2	1
6. Receiving feedback after each observation helped me better understand how to implement incidental teaching strategies.	5	4	3	2	1
7. By self-monitoring, I was more likely to reflect on how accurately I implemented each incidental teaching strategy.	5	4	3	2	1
8. Self-monitoring helped me find ways to better my implementation of each incidental teaching strategy.	5	4	3	2	1
9. Incidental teaching is a useful tool.	5	4	3	2	1
10. I found my participation in this project worthwhile.	5	4	3	2	1

Please provide any additional information that might be important for us to know regarding the use of incidental teaching in classrooms: