

THE USE OF THE PERFORMANCE DIAGNOSTIC CHECKLIST-HUMAN
SERVICES TO ASSESS AND IMPROVE DATA REPORTING IN A
COMMUNITY-BASED ADULT AUTISM SERVICE PROGRAM

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ABSTRACT

For agencies in the health and human services field, data reporting is the primary source of information from which progress and organizational outcomes are measured. Often, front-line staff are responsible for collecting these data and yet are often ill-equipped to collect data accurately and consistently leading to a performance deficit affecting the strength and success of the program. Evaluating and addressing performance issues in the human services field has long been a challenge due to limited resources. Finding an effective and efficient method of evaluation that leads to a function-based intervention would improve performance and ultimately improve organizational outcomes. This study evaluated the Performance Diagnostic Checklist – Human Services (PDC-HS) as means of assessing the performance deficit of inaccurate data reporting in a community-based adult autism services program. A multiple-baseline design was used across four participants to evaluate the effects of the interventions indicated by the PDC-HS. Two participants received performance feedback and two received additional training following the behavior skills training model. Results indicated that both interventions were effective in increasing accurate data reporting across participants. Social validity measures also indicated the PDC-HS was easy to use and could be completed in a timely manner.

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CHAPTER 1

INTRODUCTION

Many organizations in the Health and Human Services (HHS) industry rely on front-line employees or direct support professionals (DSPs) to disseminate services and in turn, these DSPs have a direct effect on the organization's outcomes (Langeland, 1998). These organizational outcomes, largely based on the quality of services delivered, and ongoing regulation changes have shifted the job responsibilities of these DSPs from that of caregiver to a therapeutic role responsible for teaching functional skills (Larson & Hewitt, 2012). Likewise, services have largely shifted from institutional and even campus settings to the community where skills can be taught in the natural environment and services can be individualized to the person (Gerhardt & Lainer, 2001; Harchik & Campbell, 1998; Larson & Hewitt, 2012). Community-based services lead to increased autonomy for DSPs but also comes with a tradeoff. Many DSPs work with minimal supervision and are responsible for collecting data, implementing treatment plans, and creating increased opportunities to teach skills with little to no support or continued training (Gerhardt & Lanier, 2001; Larson & Hewitt, 2012).

With many DSPs working autonomously in the community and having a direct effect on individual and organizational outcomes, organizations face the challenge of providing adequate training and supervision to ensure quality services are being delivered (Ludwig, 2015; Reid & Parsons, 2000). Efforts to provide quality services and meet organizational outcomes have resulted in many organizations using the principles of

applied behavior analysis to drive effective treatment for clients and the actual delivery or application of effective treatment by DSPs (Gerhardt & Lainer, 2011; Ludwig, 2015; Reid & Parsons, 2000). In their book, *Performance Management*, Daniels and Bailey (2014) argue that DSPs are often ill-trained in implementing treatment protocols even when a high degree of skill is required, and go on to say that, even though achieving outcomes is the primary concern, the behaviors leading to or the means of achieving those outcomes is important. To take a closer look at the behaviors involved in achieving organizational outcomes and in turn, improving employee performance, a system of analysis and evaluation is required.

Performance Analysis

A subdiscipline of applied behavior analysis, organizational behavior management (OBM), includes applying the principles of behavior analysis to organizational performance at both a systems and individual level (Ludwig, 2015) This application differentiates OBM from other methods of performance analysis by focusing on behaviors that are observable and measurable and can be changed by identifying and manipulating environmental factors directly related to the behaviors in question (Wilder, Austin, & Casella, 2009). Performance analysis through the lens of OBM can be centered around two major questions: 1) Do employees have the needed skill sets to complete their job to organizational standards? and 2) Are employees able to apply those skill sets consistently to support the achievement of organizational outcomes? (Reid & Parsons, 2000). These questions are important from the OBM perspective because, while

organizations are ultimately concerned about results and outcomes, an investigation of poor outcomes requires an analysis of the behaviors or means of obtaining those outcomes (Daniels & Bailey, 2014).

Historically, an OBM model of performance analysis has used several models and algorithms to assess performance problems and provide a solution. One such model is Daniel's PIC/NIC Analysis® based on Skinner's (1953) work and analysis of the three-term contingency (Daniels & Bailey, 2014; Lattal & Porritt, 2008). By analyzing the current antecedents and consequences of a behavior related to a specific performance problem, one can identify what is maintaining the behavior and where environmental changes can be made. Consequences in the PIC/NIC Analysis® are categorized across three domains that comprise the acronym of the analysis itself: 1) positive or negative, 2) immediate or future, and 3) certain or uncertain. Daniels argues that behaviors are maintained by consequences that are positive (P) or negative (N), immediate (I), and certain (C), stressing the immediacy of the consequence as major factor. By identifying maintaining consequences, organizations can manipulate antecedent variables that result in a positive, immediate, and certain consequences for the desired behavior.

Mager and Pipe (1997) also provide a framework for performance analysis that is organized in such a fashion that managers and supervisors within an organization can easily assess a performance concern. Their model utilizes a decision tree that first helps supervisors define the performance problem and decide whether the problem is worth addressing. Once a problem is identified, "fast fixes," can be applied, such as clarifying

expectations and ensuring adequate resources are available, or consequences can be manipulated for both desired and poor performance. If “fast fixes” or changes in consequences are not effective, the decision tree suggests the performance problem is due to a skill deficit and helps supervisors target where training would be most effective. Supervisors can follow a flowchart with specific questions that ultimately leads to a method of selecting an appropriate point of intervention.

Performance Diagnostic Checklist (PDC)

Frameworks for assessing functional relationships have long been utilized in the OBM literature; however, Austin (2000) cites a lack of empirical determination of the models themselves and calls for a method of assessment that can be evaluated for its effectiveness. The Performance Diagnostic Checklist (PDC) was developed by Austin (2000) to assess performance deficits and indicate an intervention based on a least-restrictive model. The PDC also combines the methods of indirect and descriptive assessment based on direct observation and a series of diagnostic questions separated into four categories: antecedents and information, equipment and processes, knowledge and skills, and consequences (Austin, 2000). Answers to these questions can guide the investigator to select an intervention (or combination of interventions) based on the genesis or function of the problem. Due to its effectiveness and practicality, the PDC has been widely used in OBM and is considered one of the most common assessments in the field (Johnson, Casella, McGee, & Lee, 2014). It has been successfully used to improve performance across a variety of industries, including retail (Doll, Livesey, McHaffie, &

Ludwig, 2007; Eikenhout & Austin, 2005; Loughrey, Marshall, Bellizzi, & Wilder, 2013; Pampino Jr., MacDonald, Mullin, & Wilder, 2003; & Rohn, Austin, & Lutrey, 2003), food and restaurant (Amigo, Smith, & Ludwig, 2008; Austin, Weatherly, & Gravina, 2005; Manuel, Sunseri, Olson, & Scolari, 2007; Pampino Jr., Heering, Wilder, Barton & Burson, 2004; Rice, Austin, & Gravina, 2009; Rodriguez et al., 2005, Shier, Rae, & Austin, 2003; Therrien, Wilder, Rodriguez, & Wine, 2005), construction (Pampino Jr., Wilder, & Binder, 2005), and safety among pharmacy employees (Fante, Gravina, & Austin, 2007; Fante, Gravina, Betz, & Austin, 2010).

While the utility of the PDC has been demonstrated repeatedly in the private sector, it has been used less in the public sector and more specifically the human services industry. The use of the PDC as a preintervention assessment tool has successfully increased the billing practices and subsequent Medicaid revenue of school psychologists (Hybza, Stokes, Hayman, & Schatzberg, 2013) and the safe patient-transfers in a day treatment setting (Lebbon, Austin, Rost, & Stanley, 2011). Miller, Carlson, and Sigurdsson (2014) utilized the PDC to address treatment integrity concerns in a special education school. However, the diagnostic questions included in the PDC are largely directed towards for-profit business models and do not capture the differences and needs of an organization that is providing therapeutic services (Carr, Wilder, Majdalany, Mathisen, & Strain, 2013).

Performance Diagnostic Checklist – Human Services (PDC-HS)

Carr and colleagues (2013) extended the utility of the PDC to the human services

industry by reframing questions specific to the field and developed the Performance Diagnostic Checklist-Human Services (PDC-HS). Based on performance problems regularly identified in human services (e.g., data collection, attendance, development of program materials), Carr et al. revised sections of the PDC and revised the list of questions to address these performance problems. The revised and expanded assessment was reviewed and piloted by 11 behavior analysts, in addition to the authors, and subsequently modified based on their feedback. The resulting assessment included four sections (training; task clarification and prompting; resources, materials, and processes; and performance consequences, effort, and competition) with four to six questions in each section that related to employee performance. Each of the four sections contains questions that can be answered by an informant or through direct observation. The assessment can be completed by a direct supervisor or a clinician who has direct knowledge of the performance problem. The supervisor will complete direct observations where the performance problem is occurring to assess the environment as well as with the individual who is demonstrating the performance deficit. Direct observation questions in the PDC-HS will guide supervisors to assess whether appropriate required materials are present, whether the materials are sufficient for the required task, and if the individual can state the purpose of their job or task. Supervisors answer each question with a *yes* or *no* and then tally all the *no* responses. Since a *no* response indicates a potential area for improvement, the section with the greatest number of *no* responses would be the supervisor would target first for improvement.

Carr et al. (2013) then evaluated the utility of the PDC-HS in an autism treatment center where the targeted performance problem was the completion of a room cleaning checklist in treatment rooms. In addition to evaluating the use of the PDC-HS from a supervisory standpoint, Carr and colleagues also evaluated the predictive validity of the assessment by introducing a non-indicated intervention as well as one indicated by the PDC-HS. Three supervisors were interviewed using the PDC-HS, and observations were completed to indicate an effective intervention. Based on results of the assessment tool, it was determined that the answers in the Training and Performance Consequence section were the most concerning, so an intervention utilizing training and posted, graphed feedback was selected. Likewise, a non-indicated intervention, task clarification and placement of materials, was also selected, for comparison. A multiple-baseline design was used across eight treatment rooms with the indicated intervention implemented in a staggered fashion across all eight rooms with the non-indicated intervention implemented first in two rooms prior to the indicated intervention. Results indicated that the intervention suggested by the PDC-HS was effective in increasing staff performance in completing a room cleaning checklist. The percentage of completed tasks did not increase following the implementation of the non-indicated intervention; however, an increase was seen following the implementation of the indicated intervention.

A study limitation cited by Carr et al. (2013) was the use of a two-component intervention in both the indicated and non-indicated interventions used. The use of a two-component intervention does not allow the supervisor to determine which component had the greatest effect or if a component was even a factor in increasing performance. Carr

and colleagues also implemented a non-indicated intervention first in two treatment rooms, and while the intervention did not have a positive effect, it is unknown if there was a sequence effect in the indicated intervention phase. To address the limitation of a two-component intervention, Ditzian, Wilder, King, and Tanz (2015) consciously selected a single-component intervention. Ditzian and colleagues again evaluated the utility of the Performance Diagnostic Checklist-Human Services (PDC-HS) in an autism treatment center by implementing an indicated and non-indicated intervention after administering the PDC-HS to address closing and securing therapy room doors. The PDC-HS was administered to three Board Certified Behavior Analysts (BCBAs) who also acted as direct supervisors to the study participants. Unlike Carr et al. (2013), Ditzian and colleagues (2015) calculated interobserver agreement for the administration of the PDC-HS and in turn addressed the concern of possible subjectivity and bias implicating the results of an indirect assessment.

Following the administration of the PDC-HS, it was determined that staff were not closing therapy room doors due to a lack of consequences for poor performance. As the PDC-HS indicated, the intervention selected was verbal and graphic feedback at the beginning of each session. As a means of comparison, a non-indicated intervention was selected from the PDC-HS as well. During each session, a written prompt was placed at eye level describing the expectation of closing the therapy room doors. There was no description of how the non-indicated intervention was selected, which could potentially be a limitation of the study as one respondent gave several *no* responses in the prompt section of the assessment. Due to these responses, it is possible the lack of prompts may

have contributed to the performance deficit and the subsequent use of visual prompts may have affected the overall positive effect of the study. The indicated verbal and graphic feedback intervention was implemented across all four participants using a multiple-baseline design. For the last two participants, the non-indicated intervention was implemented before the indicated intervention to determine the predictive validity of the PDC-HS as an indirect assessment tool.

Results in the Ditzian et al. (2015) study showed the intervention indicated by the PDC-HS was effective in increasing the closing and securing of therapy room doors across all four participants. Baseline data collected for securing therapy room doors ranged from 1-14% of opportunities and increased to 66-80% of opportunities following the implementation of the verbal and graphic feedback. For the two participants who received the non-indicated intervention prior to the indicated intervention, closing the therapy room door only increased to 4% and 6% across all opportunities suggesting the written prompt was not an effective intervention as it did not address the proposed function of the paper as described by the PDC-HS results. While these results replicated the results of the Carr et al. (2013) study, Ditzian and colleagues argue several limitations, including the fact that there had been more than one area of concern indicated on the PDC-HS that may suggest several functions maintaining the poor performance. Despite the area of greatest concern being addressed through the indicated intervention, it is not clear whether an intervention selected from another area indicated in the PDC-HS would be just as effective in increasing staff performance. They also suggest other interventions that have been proven to be effective in the OBM literature, but not

necessarily indicated on the PDC-HS, may also have a positive effect on increasing staff performance. They also shared the same limitation of sequence effects in measuring the effectiveness of an indicated intervention against the effectiveness of a non-indicated intervention. The study design attempted to address possible order effects by only applying the non-indicated intervention to two participants; however, without a between groups comparison across an adequate number of participants, the design does not allow for a definitive conclusion on the indicated intervention being the only factor in affecting the dependent variable. Ditzian et al. acknowledge that other methods of performance analysis (e.g., direct observation and functional analysis) may be preferred over indirect assessment methods; however, they argue these methods are not as practical or effective in an organizational setting. In these settings, behaviors can be rule-governed and maintaining consequences are often temporally distant from the behavior of concern. As a means of improving the indirect assessment process, Ditzian et al. suggest the PDC-HS is useful in organizational settings because it includes direct observation and does not rely solely on respondent reporting.

To examine the practicality of the PDC-HS in a setting where a BCBA or other clinician may not be immediately available, Bowe and Sellers (2018) elected to assess error-correction procedures in a special education classroom. Three special education teachers, without training or credentials in applied behavior analysis, completed the PDC-HS to assess the ability of staff to implement error-correction procedures during discrete trial teaching (DTT). The significance of having teachers complete the assessment tool was to determine if the utility of the tool extended to mid-level managers who may need

to complete an assessment with minimal or distant support from a clinician. Bowe and Sellers also differed from previous studies by implementing a non-indicated intervention across all participants rather than a select few. A non-indicated intervention, selected by the teachers based on what they felt would be practical, was implemented following baseline using a multiple baseline design across participants. The results of the non-indicated intervention showed minor improvements for two of the four participants, but the increase did not maintain. Based on the results of the PDC-HS, it was determined that additional training was required so each teacher provided behavioral skills training (BST) on how to correctly implement error-correction procedures during DTT. Following the completion of BST, results show a rapid increase to meet mastery criterion and the result maintained throughout the course of the study. Also, this study still had the limitation of potential sequence effects with the addition of a non-indicated intervention across all participants. Despite not being indicated by the PDC-HS, the intervention had a slight positive effect leading to the conclusion that it may have been a variable in the maintaining the target behavior.

The OBM model has proven to be an effective way to conceptualize the function of performance problems and aid in the development of function-based interventions. The PDC has been shown to be an effective and efficient structured way to determine the function of performance problems in a variety of settings (Austin, 2000; Johnson et al., 2004; Rodriguez et al, 2005). To date, the studies examining the use of the PDC-HS have all been done in controlled clinical settings. Extending the application of the assessment to a community setting or less controlled setting has not been done. Until Bowe and

Sellers (2018) utilized the PDC-HS with special education teachers, the assessment had only been administered by BCBAs. The purpose of the current study was to replicate the findings of the previous three studies (Bowe & Sellers, 2018; Carr et al., 2013; Ditzian et al., 2015) with the addition of utilizing the PDC-HS in an adult autism community treatment program and having non-clinical supervisors complete the assessment. In a community program, clinical staff, including BCBAs, are available but are not immediately present to provide ongoing training and support due to the nature of community services and do not directly supervise the staff/DSPs. This study will examine whether the PDC-HS is effective in identifying an intervention to improve data reporting by DSPs providing services in the community.

Research Questions

1. Will the use of the PDC-HS, as completed by direct supervisors, identify variable(s) influencing a performance deficit?
2. Will the use of the PDC-HS, as completed by direct supervisors, identify an intervention that is effective in improving the targeted performance deficit?
3. Will the intervention indicated in the PDC-HS be effective in improving the targeted performance deficit?

CHAPTER 2

METHOD

Participants

Four participants were recruited via an email sent to all direct support professionals (DSPs) working in a community-based adult autism service program (See Appendix A). Nine potential participants contacted the student investigator by responding to the email or in person. The student investigator then met with each potential participant to determine eligibility and obtain consent. DSPs were considered eligible to be part of the study if they had been working in the program for at least three months and billed for a minimum of 20 client service hours per week. These parameters were set to ensure participants were beyond their initial probationary period and would be billing at a full-time rate. Per program guidelines, DSPs were also required to be at least 21 years of age and have a minimum of a high school diploma with some relevant experience required. Acceptable experience ranged from caring for a family member with autism to being in a graduate program related to clinical services. The demographics for all four participants are outlined in Table 1 including education level, length of time with the agency, and hours billed on a weekly basis.

Each participant went through an initial data reporting training in their week of orientation as a new DSP. This training consisted of a demonstration on how to enter a daily progress note into the electronic note system based on data the DSP would be collecting during a session with their client. Following orientation, each participant met

with the supervisors in charge of their caseload. A participant could meet with multiple supervisors depending on the size of their caseload as supervisors were assigned to specific clients and not DSPs. In this meeting, client-specific goals were reviewed, and participants were given any materials required to support their clients throughout the day (e.g., visual schedule, visual prompts, etc.) including a client specific data sheet. Supervisors also reviewed the expectation of recording data every day and entering data into an electronic note when meeting with each participant. was also reviewed. All participants were familiar with the use of client specific data sheets and the electronic note system prior to the beginning of the study.

Table 1

Selected Participant Demographics

Participant	Gender	Age	Race	Education level	# Years with agency	Hours billed weekly
1	Male	35	African American	HS Diploma	3	22
2	Female	32	African American	Bachelors	7	36
3	Male	43	African American	Masters	2	54
4	Female	38	African American	Bachelors	10	30

Settings and Materials

The study was conducted at the office of a community-based adult autism treatment program in southeastern Pennsylvania. The program office is in a commercial office building and contains multiple administrative offices as well as a conference room and evaluation room. A common work area exists for DSPs to complete necessary

paperwork including entering daily progress notes. In the work area, DSPs have access to several computers, a printer/copier, required forms, and basic office supplies. A large bulletin board is located above the computers where notes, announcements, and calendars can be placed.

All phases of the study were completed in the small evaluation room in the office. The room consisted of a large table and chairs and items relevant to the evaluation process but not relevant to the current study (e.g., toys, assessment packets, intake forms, etc.). During the assessment phase, materials included two copies of the modified PDC-HS, a timer, a Flip UltraHD video camera, client specific data sheets for each supervisor's caseload, pens, and a notepad. During the training phase, materials included a graphic display of current baseline data to review common errors, a script for either performance feedback or behavior skills training, data sheets with sample goals, a Flip UltraHD video camera, pens, and a notepad. Treatment phases of the study included identical materials to the training phase but were not video-taped.

Dependent Variable

The dependent variable of this study is the percentage of accurately completed data fields in a daily electronic progress note. A data field was defined as any portion of a note where the participant would be required to enter a numerical value or make a selection from a drop-down box. Narrative portions of the note were not included. The targeted data fields were directly related to client goals listed on the note per the client's treatment plan and include: a) measurement system, b) data value, c) "yes" or "no"

indication if objective was met, and d) prompt level if applicable. Accuracy was defined as a response that corresponded to the measurement system and objective as written in the client's goal found in their ISP (e.g., duration was indicated in client goal and duration was selected in electronic note and a time value was entered).

Data Collection

Data were collected each day a participant worked via the permanent product of the daily electronic progress note(s). Progress notes were printed from the electronic note-taking system by the program director. All client identifying information was redacted and printed copies of the progress notes were given to the student investigator. If a participant had multiple notes in one day (e.g., participant had one client in the morning and one in the afternoon), data were collected from all notes. Correct entries and errors noted in the daily note were documented on a data sheet for each participant (See Appendix B). Errors were separated as an error of commission (i.e., value or entry does not correspond to the skill objective written on the progress note) or omission (i.e., no value or entry was entered). The percentage of accurately completed data fields was calculated by dividing the number of correct entries by the total number of data fields available across all notes entered by a participant in a single day and then multiplying by 100 to obtain a percentage.

Interobserver Agreement and Treatment Integrity

Interobserver agreement (IOA) was conducted for each participant during each phase of the study. The student investigator was the primary data collector and two

secondary data collectors were peers in the student investigator’s graduate program (M.S.Ed in ABA), and therefore had a course in single case design and experience with similar data collection. Prior to data collection, all secondary data collectors received a complete training from the student investigator at a local coffee shop. Training included a review of operational definitions and data sheets, modeling how to collect data, and providing the opportunity to practice collecting data until there was 100% agreement. The percentage of IOA agreement was calculated by dividing the number of agreements by the total number of agreements and disagreements and multiplying by 100. An agreement was defined as both the primary and secondary data collector scoring a data value on the progress note as correct, incorrect, or an omission. A disagreement was defined as one data collector scoring a data value differently than the other data collector. IOA data were collected for 61% of days in the baseline phase and 55% of days in the treatment phase. As seen in Table 2, the percentage of agreement ranged from 98%-100% in the baseline phase and was 100% across all participants in the treatment phase.

Table 2

Average Percentage IOA (and Range) Calculated for Each Participant and Phase

Interobserver Agreement	Participant 1 Average (Range)	Participant 2 Average (Range)	Participant 3 Average (Range)	Participant 4 Average (Range)
IOA – Baseline	100% (100%)	100% (100%)	98% (83%-100%)	99% (93%-100%)
IOA - Treatment	100% (100%)	100% (100%)	100% (100%)	100% (100%)

Experimental Conditions

Baseline.

During baseline, no intervention was implemented. Baseline data were collected by reviewing daily electronic notes of the participants. Supervisors provided feedback, as is typical in the program, about the timeliness of entering notes, but no feedback specific to accurate data reporting was given. Baseline data were collected for a minimum of two weeks and until stability was reached for each participant.

Pre-Intervention Assessment.

Following the completion of the baseline phase, the student investigator completed the PDC-HS (Carr, Wilder, Majdalany, Mathisen, & Strain, 2013) with three supervisors as informants. The PDC-HS consists of 20 questions, 13 interview questions and 7 questions requiring direct observation, that assess performance problems in four areas: 1) training, 2) task clarification and prompting, 3) resources, materials, and processes, and 4) performance consequences, effort, and competition. This assessment was slightly modified to word the questions with examples and terms specific to the program and current performance problem and to remove any questions that were irrelevant due to the nature of a community program (See Appendix J). For example, the question “Is the task being performed in an environment well-suited for task completion (e.g., not noisy or crowded)?” was removed from the assessment. Due to the target behavior occurring in multiple environments, including the participants’ homes, it would not be possible to adequately answer the question.

Supervisors in the program are responsible for writing client goals, reviewing notes and data, and completing monthly progress reports. Because supervisors have a designated client caseload and participants may work with multiple clients, each supervisor that completed the assessment supervised client cases for multiple participants. Supervisor 1 worked with Participants 1 and 4 and Supervisors 2 and 3 each worked with Participants 2 and 3. The student investigator interviewed each supervisor individually and asked questions specific to their caseload to determine the number of assessments that would be completed. Questions included information about how supervisors used data to complete monthly reports, the frequency and mode of feedback given, and any extenuating circumstances that may require them to address one participant differently than another. Based on the responses received, it was determined that one PDC-HS would be completed per supervisor as opposed to per participant which would mean multiple interviews for each supervisor. For example, each supervisor was interviewed once and the questions were asked as to evoke answers that applied to each of the participants he/she supervised. This was done to simplify the assessment process if possible while ensuring the PDC-HS questions would assess as many potential variables as possible.

The student investigator met with each supervisor in the evaluation room of the program office to complete the assessment interview. The length of interviews ranged from 23 minutes to 57 minutes. Each question on the modified assessment was reviewed with the supervisor and a *yes* or *no* response was marked by the student investigator next to the question. There were seven direct observation questions designated by an asterisk

on the modified assessment. These questions included observing the availability of resources, the availability of correct and complete data sheets, the availability of specific job aids, and the ability of participants to answer questions regarding data reporting accurately (See Appendix J). To answer each of these questions, the supervisor and student investigator completed observations together in the community. Direct observations were completed in the community based on where the participant would be with their client and at a time that ensured a client goal would be targeted. For example, Participant 1 was observed by the student investigator and the supervisor for 30 min at a local bowling alley where social skills were being targeted with his client. The student investigator asked each participant questions from the assessment directly related to their understanding of how data should be reported. A *yes* or *no* was marked next to each question indicating if the participant had answered correctly. Each participant was also observed collecting data for a client goal and using a job aid to complete data collection (i.e., individualized data sheet). A *yes* or *no* was again marked next to each question indicating if the participant had collected data and utilized job aids correctly. Following the completion of the PDC-HS, the assessment was scored by tallying the number of *no* answers for each section. The section that received the greatest number of *no* responses for each participant was selected for intervention.

Interventions were selected based on the scoring of the PDC-HS. The PDC-HS was scored by tallying the number of *no* answers for each section. The section that received the greatest number of *no* responses for each participant was indicated for intervention. Specific interventions were selected based on the indicated section of the

assessment as well as the ability of supervisors to sustain the intervention in the program following the completion of the study.

Intervention Phase.

A single indicated intervention for each participant was selected from the category that indicated the largest deficit in performance (i.e., the greatest number of *no* answers). Specific interventions were selected based on the indicated section of the assessment as well as the ability of supervisors to sustain the intervention in the program following the completion of the study. For example, an intervention selected from the training section would include behavior skills training rather than improving personnel selection due to the contractor relationship of the participants. The results of the PDC-HS indicated several areas for possible intervention, so to further assess areas of intervention, baseline data were reviewed for specific errors and direct observation responses were reviewed. Interventions in training and performance consequences were indicated for Participant 1, however, performance feedback was ultimately selected as the intervention because the primary error was omission due to not using the electronic note system correctly. Similarly, training, task clarification, and performance consequences were indicated for Participant 2, and performance feedback was selected due the primary error of omission. For both Participants 3 and 4, training and performance feedback were indicated interventions, however, behavior skills training was selected due to incorrect errors based on inability to select correct measurement systems and calculate steps completed correctly in a task analysis respectively. To have a sustained result beyond the

completion of the study, it was determined that the supervisors would implement the intervention for each participant. Supervisors were assigned to a participant based on how frequently they should be providing feedback to that participant as part of their daily work responsibilities. If a participant worked with one client, the supervisor who oversaw the client's case was assigned to that participant. If a participant worked with multiple clients, the supervisor who was in charge of the most cases for that participant implemented the intervention. The assigned supervisors met with the student investigator to review protocols and roleplay each intervention until competency was reached. The script required for the respective intervention was reviewed with each supervisor (See Appendices K and L). Statements specific to the participant were added to the script and the supervisor was given the opportunity to present the script to the student investigator as if the student investigator was the participant. Feedback was delivered by the student investigator and if necessary, the roleplay was repeated until all sections of the script were correctly delivered as written.

Behavior Skills Training.

Behavior Skills Training (BST) was used to provide instruction and modeling on accurate data recording for Participants 3 and 4 as well as the opportunity to practice data recording while receiving immediate feedback (Nabeyama & Sturmey, 2010). A single training session occurred in the evaluation room of the program's office with the supervisor providing the training and the student investigator observing. The supervisor followed a specific script (See Appendix K) outlining the steps and provided data sheets

with sample goals and a laptop computer to practice data recording. For the instruction portion of the training, a six-step task analysis for recording data accurately was reviewed by the supervisor. These steps included: 1) Reading the goal to identify measurement system and objective; 2) Documenting measurement system on data sheet; 3) Documenting data value on data sheet; 4) Documenting whether objective has been met on data sheet; 5) Entering information from data sheet into electronic note; 6) Documenting in electronic note if goal was not conducted and why. The participant was given the opportunity to ask any questions and then was asked to follow along as the supervisor modeled how to complete the task analysis for three sample goals. Goals were similar to those participants would see on a daily basis but were not related to any specific client. Following the completion of the modeling part of training, the participant was given a set of three new sample goals and data and asked to complete the corresponding data sheet and enter the information into a mock note on the laptop. The supervisor provided feedback including highlighting what was done correctly and reviewing any errors. The rehearsal portion continued until the participant scored 100% for all three sample goals. A new sample set of goals was presented for each rehearsal attempt. Participant 3 participated in a training session for 45 minutes and required 3 rehearsal attempts. Participant 4 participated in a training session for 25 minutes and required 2 rehearsal attempts.

Performance feedback.

Performance feedback was selected for Participants 1 and 2 who were accurately

reporting data on some goals but were consistently making errors of omission. Initial performance feedback also occurred in the evaluation room of the program's office with the supervisor providing the feedback and the student investigator observing. The supervisor followed a specific performance feedback script (See Appendix L) and supplied any data sheets or screen shots of electronic notes that were relevant to the errors the participant was making. The script was adapted from one outlined in Reid and Parsons (1996) and followed seven steps to highlight positive work performance and address specific areas for improvement. The seven steps included: 1) a general positive comment about performance, 2) a specific positive comment about performance directly related to data reporting, 3) a general statement of areas needing improvement, 4) detailed and specific information given on errors made in data reporting, 5) a statement of when follow up would occur, 6) thanking the participant for their time and providing method of contact if questions arose. The schedule for follow up feedback was set for immediately following the submission of the participant's next note and then on a weekly basis for subsequent notes. For example, if initial feedback was given on a Monday and the next note was submitted on Wednesday, follow up feedback would be provided that day for Wednesday's note and then subsequent feedback provided each Wednesday for the previous week's notes. Follow up feedback consisted of a text message sent from the supervisor providing a general positive statement and any specific corrective feedback required. A sample message would be "Your note looks great! Thanks for remembering to document when you don't run a goal." If an error had been made, the text message would include a reminder of how to fix the error. "Today's note included great details.

Don't forget to enter data for each goal you complete." Text messages were selected as the mode of communication due to the low response effort required of supervisors since participants are not in a central location, the more immediate delivery of the feedback as opposed to other forms of communication, and it already being an established form of communication in the program.

Experimental Design

A multiple baseline design across participants was used in this study. This design was selected to demonstrate the effect of a PDC-HS indicated intervention on each participant's performance. Baseline data were collected for each participant based on the daily electronic notes they submitted. Treatment for each participant was selected based on the results of the PDC-HS completed prior to implementation. The indicated intervention for each participant was applied once criteria had been met for the previous participant(s) per the multiple baseline design. Visual inspection of the data to determine stability and trend indicated when phase changes occurred. Stability criteria for each phase was defined as the last three data points falling within 15% of the mean of the previous data points. The intended goal of the intervention was to increase accurate data reporting to 100% across all opportunities, because data reported were essential to the accuracy of monthly reports assessing client progress and program effectiveness. The intervention remained in place and data were collected until 100% accuracy was reached across a minimum of three data points.

Treatment Integrity

Treatment integrity data were collected for the assessment phase, training supervisors to implement the indicated intervention, and both interventions in the treatment phase using a checklist (See Appendices C-E). The checklist measured whether the assessment, training, and interventions were implemented as indicated in the study protocol. The clinical coordinator of the program was the secondary data collector and collected treatment integrity data for the assessment phase and the training phase. The student investigator collected treatment integrity data for the treatment phase. Prior to the beginning of the study, the student investigator provided training for the clinical coordinator including reviewing the required checklists, modeling how to complete the checklists, and providing specific examples of when a step would be marked complete and when it would be marked incomplete. For the assessment phase, treatment integrity was completed for all three assessments and was 100%. Treatment integrity was also completed for each supervisor who was trained by the student investigator on the indicated intervention(s) and was then completed again when each supervisor implemented the indicated intervention with their identified participant. Treatment integrity was 100% for both the training and treatment phases of the study.

Social Validity

Social validity was assessed before and after the study for all participants as well as the supervisors completing the PDC-HS. The pre-assessment survey provided to supervisors utilized a 5-point Likert scale to rate 10 statements to identify if they felt

accurate data reporting was important for their job, an assessment to address performance issues would be helpful, and they could complete an assessment and apply its recommendations with their current job responsibilities (See Appendix F). Statements included, “Accurate data reporting in daily progress notes is important for my job as a supervisor,” “An assessment that quickly identifies why a staff performance issue (e.g., poor data reporting) is occurring would be beneficial in my current position,” and “When prioritizing my job responsibilities, I have enough time to meet with staff and review performance expectations.” The participant pre-intervention survey followed an identical format with nine statements that included, “Accurate data reporting in daily progress notes is an important measure of my client’s progress,” “I understand how to report data for each goal in the current progress note in Profiler™,” and “Additional training on data reporting would be helpful” (See Appendix G).

Following the completion of the indicated interventions, a social validity questionnaire was again provided to each participating supervisor and all participants. The post-intervention survey provided to supervisors utilized a 5-point Likert scale to rate eight statements on how effective the PDC-HS was in identifying an effective intervention, the ease of implementing the PDC-HS, and the sustainability of additional feedback requirements (See Appendix H). Statements included, “The time requirements of completing the PDC-HS are reasonable,” “The indicated intervention had a positive effect on accurate data reporting for my cases,” and “I am satisfied with the outcomes of using the PDC-HS.” The participant post-intervention survey followed an identical format with seven statements that included, “The additional training/feedback was

helpful in completing my daily notes,” “Overall, I like the additional training/feedback that were implemented,” and “I would like the additional training/feedback to continue” (See Appendix I).

CHAPTER 3

RESULTS

PDC-HS

Supervisor answers to the indirect assessment portion of the PDC-HS are illustrated in Figure 1. All three supervisors reported *no* for 50% of relevant questions in the Training section, suggesting that the current training procedures may be contributing to poor data reporting. For Supervisor 2, 100% of responses and for Supervisors 1 and 3, 66% of responses were *no* in the Performance Consequences, Effort, and Competition section, indicating it as a second possible area to target an intervention. In the Task Clarification and Prompting section only supervisor 2 had a *no* response for 33% of relevant questions. There were zero *no* responses in the Resources, Materials, and Processes section across all supervisors as seen in Figure 1.

Direct observation results for each participant are illustrated in Figure 2. In the training section of the assessment, each participant was asked if they could accurately state how and when data should be recorded. Participants were also observed to determine if they were using their data sheets as required when running goals. Direct observation of participants entering data into the electronic note system was not completed due to participants completing notes outside of their work hours. For Participants 1, 3, and 4, 100% of responses and for participant 2, 50% of responses were *no* in the Training section. In the Task Clarification and Prompting section only Participant 2 had a *no* response for 50% of relevant questions. There were zero *no* responses in the Resources, Materials, and Processes section across all participants and

there were no relevant direct observation questions in the Performance Consequences, Effort, and Competition section.

Based on the results of the PDC-HS, it was determined that both behavior skills training (BST) and performance feedback would be implemented in the treatment phase. Specific errors made by each participant were reviewed as well as participant responses in the direct observation portion of the PDC-HS. Table 3 indicates that Participants 1 and 2 would receive performance feedback in the treatment phase due to their errors of omission and inability to accurately state how to enter data into the electronic note. Participants 3 and 4 received BST during the treatment phase to address errors including selecting the incorrect measurement system and miscalculating completed steps in a task analysis.

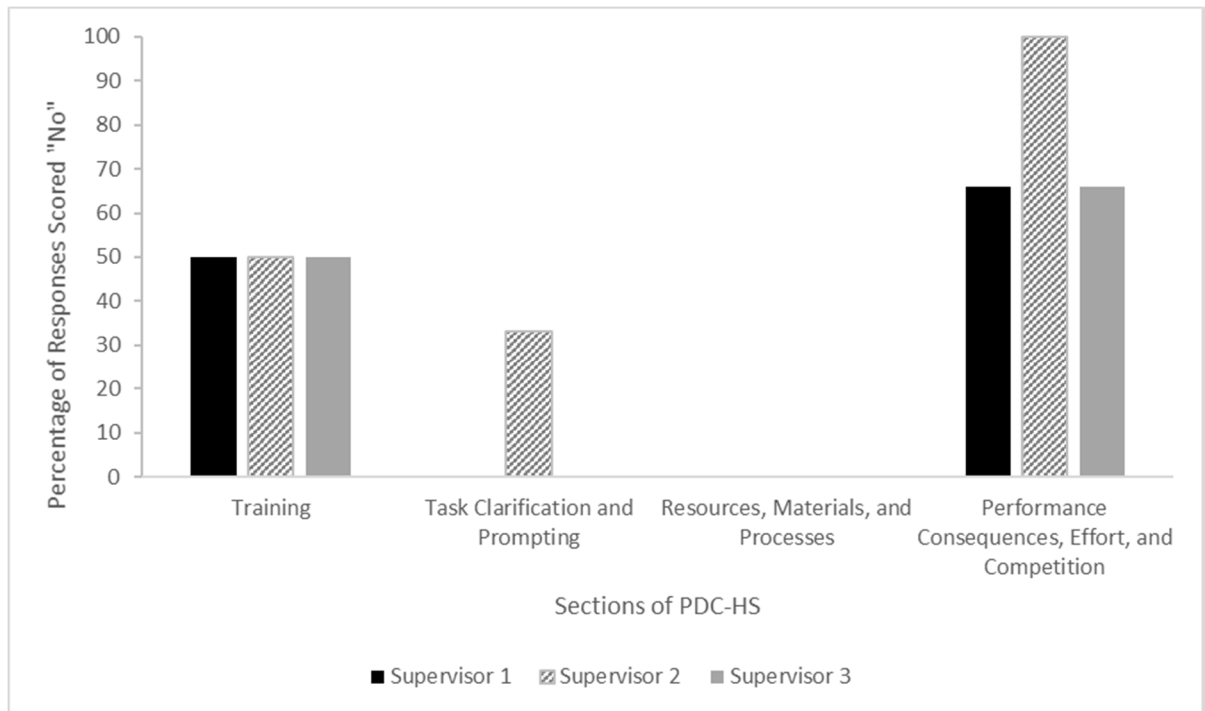


Figure 1. Percentage of “no” responses by three supervisors when completing indirect assessment portion of PDC-HS

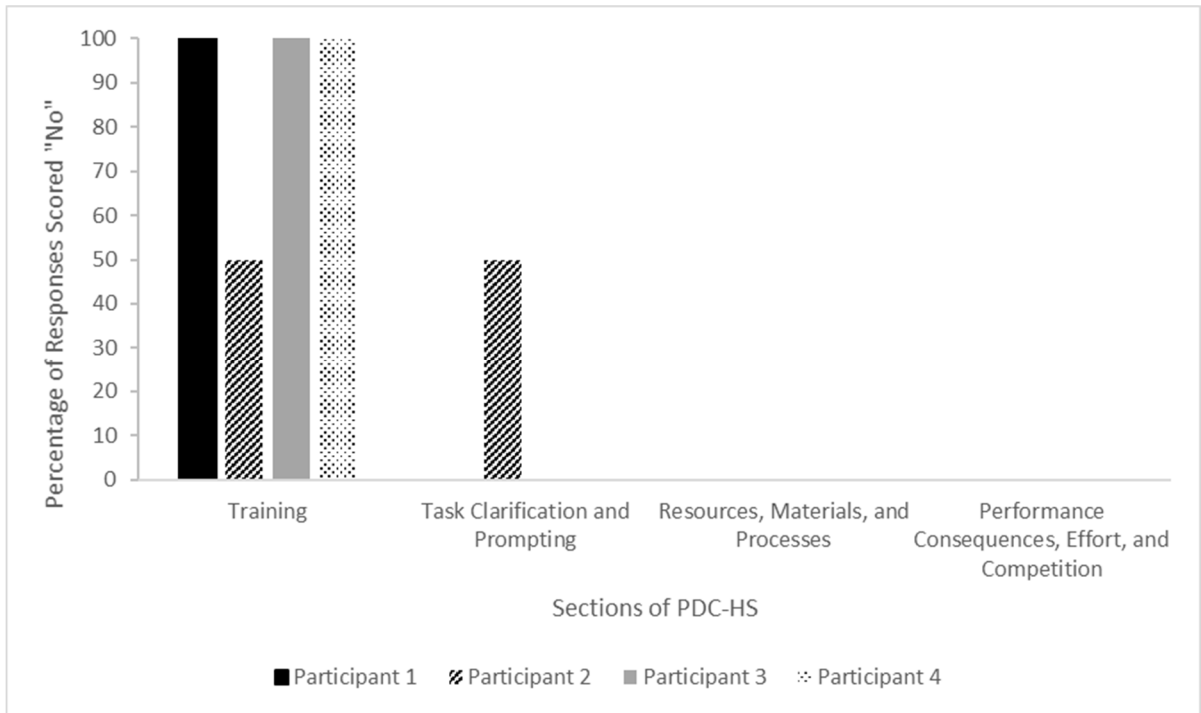


Figure 2. Percentage of “no” responses for the direct observation portion of PDC-HS by participant

Table 3

Participant Errors and Responses in Assessment Phase

	Participant 1	Participant 2	Participant 3	Participant 4
Primary Type of Error	Omission	Omission	Incorrect	Incorrect
Direct Observation Response	Did not know how to find goals in electronic note	Did not know how to document goals that were not completed	Did not understand measurement systems and objectives	Did not know how to calculate steps in TA

Intervention

During baseline, all four participants met the inclusion criterion of accurately reporting data 75% or below of all opportunities. In baseline, Participant 1 had no

accurate responses as all responses were errors of omission. Participant 2 demonstrated steady responding at 33.33% across all 13 days of baseline. Participant 3 demonstrated variable responding across 22 days with an average of 39.79% and a range of 22-58%. Participant 4 demonstrated variable responding across 21 days in baseline with an average of 54.27% and a range of 33.33-73.33%.

Performance feedback was implemented as the indicated intervention for Participants 1 and 2. An immediate effect was seen, and criterion was met for both participants as seen in Figure 3. Participant 1's responding increased to 100% the first day and remained stable across 14 days with an average of 99.05% and a range in responding from 93.33-100%. All responses in the treatment phase for Participant 1 displayed 100% of data points non-overlapping with the baseline phase, indicating performance feedback had an effect on increasing accurate data reporting. Participant 2 had similar results and increased responding to 100% the first day of the treatment phase. Responding for Participant 2 remained stable at 100% across all 11 days and displayed 100% of data points non-overlapping with the baseline phase.

Participants 3 and 4 received BST as their indicated intervention. On the first two days of the treatment phase, Participant 3's responding increased to 71% and 86% respectively. Prior to the third day of the treatment phase, Participant 3 independently sought out feedback on his notes from the supervisor who had provided his BST training. Feedback was provided as is customary in the program and without consultation with the student investigator (See arrow note in Figure 3). After receiving feedback, responding

increased to 100%. Across the 10 days of the treatment phase, Participant 3's responding was slightly variable with an average of 92.9% and a range of 71-100%. All responses in the treatment phase for Participant 3 displayed 100% of data points non-overlapping with the baseline phase. Participant 4's initial response in the treatment phase increased from baseline responding to 80%. Responding increased to 100% on the second day and remained stable across all 5 days with an average of 96% and a range in responding from 80-100% (see Figure 3). All responses in the treatment phase for participant 4 displayed 100% of data points non-overlapping with the baseline phase, indicating BST had an effect on increasing accurate data reporting.

Social Validity

Social validity was assessed through questionnaires given to all four participants pre- and post-intervention and to all three supervisors pre-assessment and post-intervention. The questionnaires contained questions targeting the social importance of the goals of the study, the procedures, and the outcomes. Responses from the participants' pre-intervention questionnaires indicate all participants agreed or strongly agreed with statements relating to the expectations for data reporting and the importance of reporting data accurately. When asked if the current process of reporting data was sufficient and no major changes were needed, responses varied from strongly disagree to agree. All participants agreed or strongly agreed that additional training on data reporting would be helpful (See Table 4).

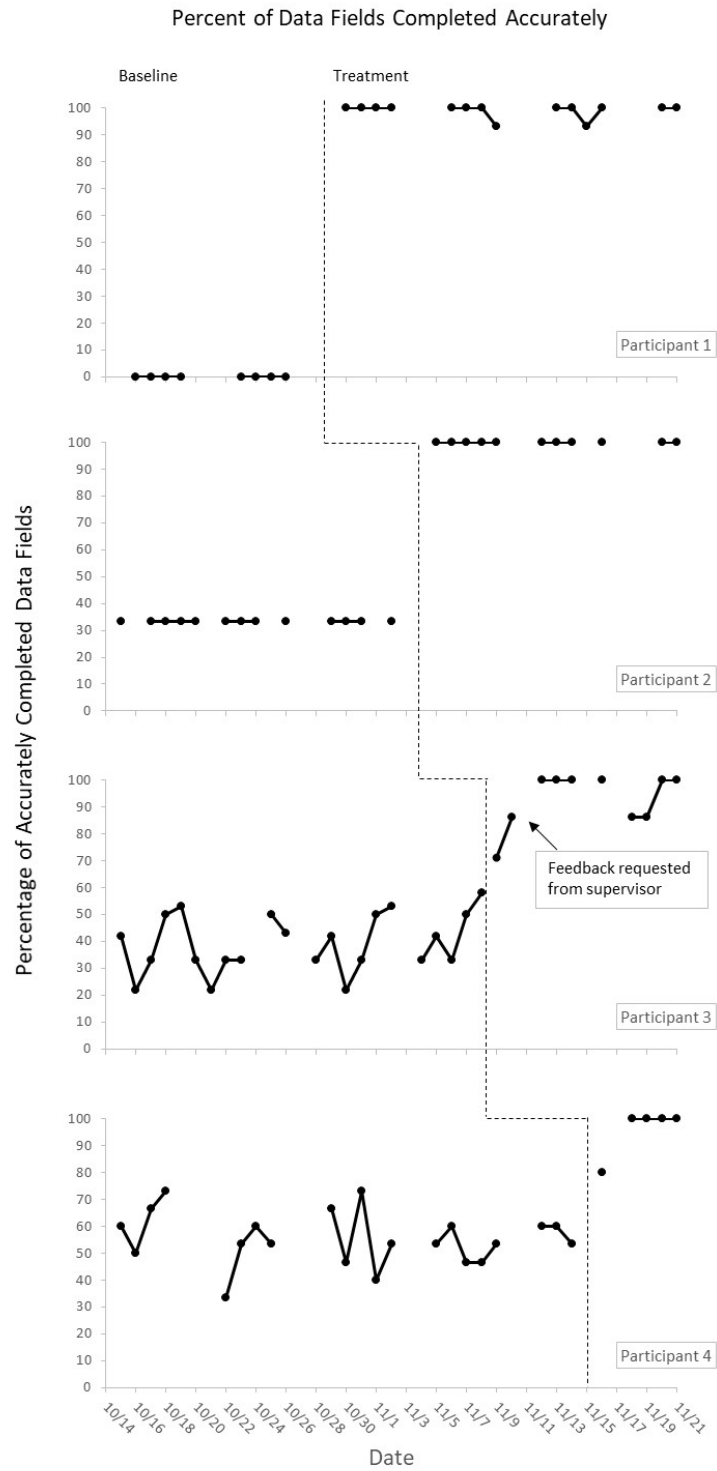


Figure 3. Percent of accurately completed data fields during baseline and application of PDC-HS indicated intervention for Participants 1, 2, 3, and 4.

In the post-intervention questionnaire, participants were again asked if they were clear on data reporting expectations prior to receiving training or feedback. Participant 2 now responded “agree” as opposed to “strongly agree” in the pre-intervention questionnaire and Participants 3 and 4 responded “neutral” instead of their previous response of “strongly agree.” All participants strongly agreed that, following additional training or feedback, expectations were clear, and the intervention had improved their data reporting and completing daily progress notes. Responses for the statement “I would like additional training/feedback to continue” ranged from agree to strongly agree (See Table 5).

Table 4

Participant Pre-Intervention Social Validity Results

Question	Participant 1	Participant 2	Participant 3	Participant 4	Average Response
1. I understand why reporting data in daily progress notes is required.	4	5	5	4	4.5
2. Accurate data reporting in daily progress notes is important to ensure skills are taught correctly.	5	5	5	5	5
3. Accurate data reporting in daily progress notes is an important measure of my client’s progress.	4	5	5	5	4.75
4. I am clear on the expectations for reporting data in my daily progress notes.	4	5	5	5	4.75
5. The current progress note in Profiler™ is easy to use.	4	5	5	3	4.25
6. I understand how to report data for each goal in the current progress note in Profiler™.	5	5	5	4	4.75
7. If I have questions about data reporting, I know who to contact and how to contact them.	3	5	5	5	4.5
8. Overall, the current process of reporting data is sufficient, and I would not make any major changes.	3	3	4	1	2.75
9. Additional training on data reporting would be helpful.	4	5	5	4	4.5

Note: Strongly disagree = 1; Disagree = 2; Neutral = 3; Agree = 4; Strongly Agree = 5.

Supervisors were asked to complete a questionnaire prior to completing the PDC-HS. All three supervisors strongly agreed that accurate data reporting was important for their job and for the success of the program. Responses for statements targeting the desire for an efficient method of assessing performance deficits ranged from agree to strongly agree. Two supervisors responded “disagree” and one supervisor responded “neutral” to the statement suggesting the current training on data reporting was sufficient and effective. The average response for “When prioritizing my job responsibilities, I have enough time to meet with staff and review performance expectations” was neutral (See Table 6).

Table 5

Participant Post-Intervention Social Validity Results

Question	Participant 1	Participant 2	Participant 3	Participant 4	Average Response
1. Before receiving additional training/feedback, I was clear on the expectations for data reporting in a daily progress note.	4	4	3	3	3.5
2. After receiving additional training/feedback, I was clear on the expectations for data reporting in a daily progress note.	5	5	5	5	5
3. The additional training/feedback was helpful in completing my daily notes.	5	5	5	5	5
4. The additional training/feedback did not disrupt my daily job responsibilities.	5	5	5	3	4.5
5. Overall, I believe the additional training/feedback helped improve my daily data reporting.	5	5	5	5	5
6. Overall, I like the additional training/feedback that were implemented.	5	5	5	4	4.5
7. I would like the additional training/feedback to continue.	5	5	5	4	4.5

Note: Strongly disagree = 1; Disagree = 2; Neutral = 3; Agree = 4; Strongly Agree = 5.

Following the completion of the study, each supervisor completed a post-intervention questionnaire that focused on the use and effectiveness of the PDC-HS. All supervisors agreed or strongly agreed that the PDC-HS was easy to use and were now

confident in assessing performance concerns with the PDC-HS. Responses for statements regarding the time requirements and ease of implementation ranged from neutral to agree. Statements on the effectiveness of the PDC-HS received a “strongly agree” response from all three supervisors (See Table 7).

Table 6

Supervisor Pre-Assessment Social Validity Results

Question	Supervisor 1	Supervisor 2	Supervisor 3	Average Response
1. Accurate data reporting in daily progress notes is important for my job as a supervisor.	5	5	5	5
2. Accurate data reporting in daily progress notes is important to the success of CAAPP and its clients.	5	5	5	5
3. With the current procedure for data reporting, I can obtain accurate data to complete my job responsibilities (e.g., monthly reports, outcome development).	2	2	5	3
4. Improving data reporting would have a positive effect on client progress.	4	5	4	4.3
5. An assessment that quickly identifies why a staff performance issue (e.g., poor data reporting) is occurring would be beneficial in my current position.	4	5	5	4.7
6. Knowing why a performance issue is occurring would be helpful in finding a solution for improving performance.	4	5	5	4.7
7. I would be able to regularly complete a staff performance assessment if the time commitment was 60 minutes or less.	5	5	4	4.7
8. I am clear on the expectations for reporting data in my daily progress notes.	5	5	5	5
9. The current training staff receive on data reporting is effective and sufficient.	2	3	2	2.3
10. When prioritizing my job responsibilities, I have enough time to meet with staff and review performance expectations.	4	3	3	3.3

Note: Strongly disagree = 1; Disagree = 2; Neutral = 3; Agree = 4; Strongly Agree = 5.

Table 7

Supervisor Post-Intervention Social Validity Results

Question	Supervisor 1	Supervisor 2	Supervisor 3	Average Response
1. The PDC-HS was easy to use.	5	5	4	4.7
2. Before using the PDC-HS, I was confident in assessing staff performance problems.	2	3	2	2.3
3. After using the PDC-HS, I was confident in assessing staff performance problems.	4	5	4	4.3
4. The time requirements of completing the PDC-HS are reasonable.	4	4	3	3.7
5. The indicated intervention is easily applied within my daily supervisory responsibilities.	4	4	3	3.7
6. The indicated intervention had a positive effect on accurate data reporting for my cases.	5	5	5	5
7. Overall, the PDC-HS is an effective tool to identify and improve staff's accurate completion of data reporting.	5	5	5	5
8. I am satisfied with the outcomes of using the PDC-HS.	5	5	4	4.7

Note: Strongly disagree = 1; Disagree = 2; Neutral = 3; Agree = 4; Strongly Agree = 5.

CHAPTER 4

DISCUSSION

The purpose of this study was to evaluate the effectiveness of the PDC-HS as it relates to identifying variables influencing a performance deficit and identifying an appropriate intervention. Specifically, inaccurate data reporting was identified as the targeted performance deficit in this study. In order to address poor data reporting, three mid-level supervisors completed the PDC-HS and implemented the indicated intervention for each participant.

Results of the PDC-HS indicated that two participants should receive performance feedback as an intervention and two participants should receive additional training on accurate data reporting. Once the indicated intervention was implemented, an almost immediate effect was seen across all four participants. For Participants 1 and 2, performance feedback was provided, and their performance improved to 100% immediately. This immediate effect may have been a result of the type of error each participant was making. The only error recorded during baseline for Participants 1 and 2 was an error of omission or neglecting to enter data for a specific goal. Data that were reported on the daily progress note for Participant 2 were reported accurately, indicating there was an understanding of how data should be reported, and additional training was not required. Both participants reported anecdotally that their errors of omission had been a result of using the electronic note system incorrectly and receiving feedback had clarified how data should be entered.

A behavior skills training (BST) package was implemented for Participants 3 and 4. While errors of omission were made for both participants, their primary error in baseline was reporting data inaccurately. For example, Participant 3 consistently reported the incorrect measurement system as it related to the specific goal and Participant 4 incorrectly calculated task analyses as reported on daily progress notes. The BST package targeted these specific errors and others for each participant and allowed each participant to practice skills until competency was reached. Following the implementation of the BST package, performance improved for Participant 3, but criterion was not yet met. Performance improved to 100% after Participant 3 inadvertently requested feedback on notes submitted following the additional training. This feedback, while not indicated, may have been a factor in improving performance. Despite receiving performance feedback in error, the immediate effect seen following the additional training indicated the BST package was effective in improving data reporting for Participant 3 and the effect maintained throughout the study. Participant 4 also saw a similar effect. By the second day following the BST training, performance had improved to 100% for Participant 4, replicating the results of Participant 3 and supporting the conclusion that the indicated intervention had a positive effect on data reporting.

The results of this study replicated the results previously reported by Carr et al. (2013) and Ditzian et al. (2015). Unlike these previous studies, this study did not include a non-indicated intervention as a means of comparison due to the potential of order effects. Despite the lack of comparison, the results show an immediate and sizable effect that leads one to conclude the interventions indicated by the PDC-HS were effective and

therefore, the PDC-HS accurately identified variables affecting data reporting. The application of performance feedback allowed supervisors to positively reinforce the target behavior in a specific and timely manner. By consistently providing positive feedback on performance, supervisors saw an increase in accurate data reporting. While the schedule of reinforcement was not assessed in this study, the results indicate that weekly feedback was sufficient to see improvement and was able to be consistently applied. Likewise, behavior skills training allowed supervisors to review and model the expected behavior and give an opportunity to practice. Through the practice and review process, staff were able to receive specific and immediate feedback about their performance. The application of performance feedback allowed the staff to reach competency with the skill and maintain the skill when working outside of the training session.

This study also replicated the findings of Bowe and Sellers (2018) by showing the effectiveness of the indicated intervention and by successfully utilizing the assessment with supervisors who were not BCBA's or had not received advanced training and education in applied behavior analysis. A social validity measure adapted from Bowe and Sellers was used to assess the usability of the PDC-HS in terms of time and ease of completion. Similar responses were given in this study where supervisors agreed or strongly agreed that the PDC-HS was effective, easy to use, and could be used again in the future.

The current study expanded on the existing literature in several ways. First, the PDC-HS was utilized in a community setting which is a less controlled setting than was

used in previous studies. Questions on the PDC-HS were modified to be specific to the program's needs and settings and decrease the subjective nature of the questions as had previously been cited as a limitation of the assessment (Bowe, 2017). These modifications allowed the assessment to address the unique needs of a community program such as communication between staff and supervisors and the collection of data and increased the validity of responses since questions were specific to the participants' environment and work responsibilities. The current study was also conducted in an adult autism program which is an underrepresented population in the current body of literature. Utilizing the PDC-HS in such a program continues to demonstrate the utility of the assessment across settings and program specific performance deficits. Lastly, the results of the PDC-HS were used in conjunction with baseline data to select an intervention that was targeted to each participant rather than selecting a single intervention to be used across the study. This allowed for a more efficient and effective intervention that resulted in an immediate positive effect.

Limitations

There were several limitations in the current study. First, data were collected via permanent product (i.e., daily progress notes) and no direct observations were completed on the target behavior. Participants completed their notes outside of their scheduled hours and in a setting of their choosing. Without direct observation, it is unknown whether any other environmental variables affected data reporting as participants were entering their daily progress notes. Another limitation is the setting in which the study was conducted.

While utilizing the PDC-HS in a community setting expands on the current literature, it also presents multiple challenges, namely which interventions are feasible and how they can be implemented. For example, changing the task location or increasing supervisor presence would not be viable options considering staff are completing the task in a variety of locations and supervisors cannot effectively increase their presence consistently across all staff in multiple locations. It is unclear if other interventions may have been more effective in improving data reporting if the setting had not limited available interventions. The question could also be asked whether or not the PDC-HS was necessary to select additional training and performance feedback as a method of addressing the problem in this setting. While available interventions are limited in a community setting, the PDC-HS provides a framework of analysis for mid-level supervisors who do not have a clinical or behavior analytic background. In the current study, supervisors completing the PDC-HS were not BCBAs and all reported that the PDC-HS was simple to use and helpful in identifying a solution to the performance problem. While a similar intervention may have been instinctively selected, especially by a supervisor with behavior analytic training, the PDC-HS provides a degree of efficiency and adds validity to the effect of the intervention. However, the challenge lies in critically analyzing the questions of the PDC-HS and the resulting answers. In the current study, the questions of the assessment were modified to accommodate the setting and several interventions were still indicated with training being a constant. It required further assessment of the baseline data to determine an effective intervention specific to each participant. It could be argued that training and experience in applied behavior analysis is

preferable and maybe even necessary to modify questions and recognize the need for further assessment, leading to more effective interventions. Lastly, the design and measure of the study limited the extent to which the PDC-HS could be evaluated. Data fields in a daily progress note were selected as the dependent variable and ranged from 6-15 fields per note. The variability of data fields across participants and the limited sensitivity of the measure affected stability in the baseline phase and may have affected how quickly an effect was seen in the treatment phase. The design of the study also did not allow for a comparison of a non-indicated intervention and an indicated intervention. Without a direct comparison, it is unclear whether a nonindicated intervention may have had an effect on the dependent variable.

Future Research

Future research should continue to evaluate the PDC-HS in less controlled settings such as the community to strengthen the argument that the PDC-HS can be adapted to use in a variety of settings and still maintain its effectiveness. The use of the PDC-HS by supervisors in non-clinical roles should also continue to be evaluated to further expand the utility of the assessment across various settings and populations. Future studies should also utilize a between-group design that allows a true comparison between a non-indicated intervention and an indicated intervention without the threat of order effects. Evaluating different indicated interventions would also determine the degree to which the PDC-HS indicates the most effective intervention. Continuing to

empirically evaluate the PDC-HS will add to its value as an efficient and effective functional assessment that can be used across settings.

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APPENDIX A

PARTICIPANT RECRUITMENT EMAIL

Dear <<Staff Member Name>>:

My name is Kady Gahman and I am a behavior specialist here at the CAAPP program as well as a graduate student at Temple University. I am writing to let you know about an opportunity to participate in a research study about improving job performance in a community treatment program. The research study will be completed here at CAAPP and will look at using a specific assessment tool and strategies to improve data recording in daily progress notes.

If you are interested in learning more about the study, please contact me at kgahman@devereux.org or 814-574-3835. Participating in the study will not require any more commitment than your regular job responsibilities and will not affect your job status in the CAAPP program. Requesting more information also does not obligate you to participate in the study.

Thank you for your consideration.

Kady Gahman

kgahman@devereux.org

814-574-3835

APPENDIX B

DEPENDENT VARIABLE DATA SHEET

DATA SHEET PHASE: _____ PARTICIPANT: _____ DATA COLLECTOR: _____ DATE: _____

Skill #1	Trial	C	I	O	Trial	C	I	O	Trial	C	I	O	Trial	C	I	O	Trial	C	I	O	Trial	C	I	O	Trial	C	I	O	Trial	C	I	O	Trial	C	I	O	Trial	C	I	O	Trial	C	I	O				
Type of Data																																																
Data Value																																																
Objective Met																																																
Prompt Level																																																
Skill #2	Trial	C	I	O	Trial	C	I	O	Trial	C	I	O	Trial	C	I	O	Trial	C	I	O	Trial	C	I	O	Trial	C	I	O	Trial	C	I	O	Trial	C	I	O	Trial	C	I	O	Trial	C	I	O				
Type of Data																																																
Data Value																																																
Objective Met																																																
Prompt Level																																																
Skill #3	Trial	C	I	O	Trial	C	I	O	Trial	C	I	O	Trial	C	I	O	Trial	C	I	O	Trial	C	I	O	Trial	C	I	O	Trial	C	I	O	Trial	C	I	O	Trial	C	I	O	Trial	C	I	O				
Type of Data																																																
Data Value																																																
Objective Met																																																
Prompt Level																																																
Skill #4	Trial	C	I	O	Trial	C	I	O	Trial	C	I	O	Trial	C	I	O	Trial	C	I	O	Trial	C	I	O	Trial	C	I	O	Trial	C	I	O	Trial	C	I	O	Trial	C	I	O	Trial	C	I	O				
Type of Data																																																
Data Value																																																
Objective Met																																																
Prompt Level																																																
Skill #5	Trial	C	I	O	Trial	C	I	O	Trial	C	I	O	Trial	C	I	O	Trial	C	I	O	Trial	C	I	O	Trial	C	I	O	Trial	C	I	O	Trial	C	I	O	Trial	C	I	O	Trial	C	I	O				
Type of Data																																																
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APPENDIX C

ASSESSMENT PHASE TREATMENT INTEGRITY CHECKLIST

Observer: _____

Date: _____

Case Manager: _____

Assessment #: _____

(May be multiple assessments for each CM)

****After probing questions, if it is determined that multiple assessments will be completed for one CM, complete the assessment section ONLY for additional assessments.**

PDC-HS Interview Procedure

Pre Assessment	
1. Materials are present – Copies of PDC-HS, pens, notepaper, notecards, timer and video camera	+/-
2. Timer started	+/-
3. Copy of PDC-HS is given to case manager and purpose of assessment is discussed. Discussion must include the following:	+/-
a. Purpose of PDC-HS. Why is it used?	+/-
b. How PDC-HS is being used in current project/CAAPP	+/-
c. How PDC-HS will address the current problem	+/-
4. Operational definition for data reporting is reviewed as written on data sheet.	+/-
5. Presented CM with a note card with participants' names and schedule and ask them to verify they are the correct supervisor	+/-
6. Asked probing questions about staff they supervise. Questions must include, "Are there any extenuating circumstances that require you to address one staff differently than another when addressing data reporting? Specific to the staff who are participating in this project." Give examples	+/-
Assessment	
7. Training section – Asked questions 1 and 3 as written in red. Red indicates question specific to CAAPP.	+/-
8. Recorded "yes" or "no" response and documented any anecdotal information.	+/-
9. Task section – Asked questions 1 and 4 as written in red. Red indicates question specific to CAAPP.	+/-
10. Recorded "yes" or "no" response and documented any anecdotal information.	+/-
11. Performance section – Asked questions 1-3 as written in red. Red indicates question specific to CAAPP.	+/-
12. Recorded "yes" or "no" response and documented any anecdotal information.	+/-
13. Presented data sheets for relevant to case load and participants in the study.	+/-
14. Reviewed Q3 in Resources section pertaining to data sheets	+/-
15. Recorded "yes" or "no" response and documented any anecdotal information.	+/-
16. Reviewed Q4 in Resources section pertaining to data sheets	+/-
17. Recorded "yes" or "no" response and documented any anecdotal information.	+/-
18. Scheduled time to complete direct observations for Training and Task section	+/-
Total +'s >	/18
(Totals for multiple assessments for same CM) Total +'s >	/12
% Successful >	

APPENDIX D

TRAINING TREATMENT INTEGRITY CHECKLIST

Observer: _____

Date: _____

Case Manager: _____

1. Materials are present – Graph of current baseline data and training scripts. Sample data sheets and laptop	+/-
2. Current baseline data of relevant participants reviewed and common errors discussed	+/-
3. Discussed PDC-HS results and how current intervention was selected for relevant participants	+/-
4. Reviewed relevant training script and answered any questions	+/-
5. Statements specific to the participant were added to the script	+/-
6. Role play intervention – case manager presents the script to the trainer as if the trainer was the participant	+/-
7. Trainer provides corrective and positive feedback as necessary.	+/-
8. Role play was repeated as necessary.	+/-
Total +'s >	/8
% Successful >	

APPENDIX E

INTERVENTION TREATMENT INTEGRITY CHECKLIST

Observer: _____

Date: _____

Case Manager/Trainer: _____

Performance Feedback or BST

Circle appropriate training protocol

Performance Feedback

1. Materials are present – performance feedback script, any required data sheets or screenshots of notes	+/-
2. Opens interaction with “I wanted to meet with you to review some of the notes you have submitted recently.”	+/-
3. Provides a general praise statement specific to the participant and related to their job	+/-
4. Provides specific praise statements about the notes the participant has submitted	+/-
5. States general areas for improvement in data reporting and notes	+/-
6. Reviews specific errors in data reporting and how to correct errors	+/-
7. Asks participant if they have any questions	+/-
8. Set expectation of follow-up via text or email	
9. Thank the participant for their time and offer to be available for any questions	+/-
Total +'s >	/9
% Successful >	

Behavior Skills Training

1. Materials are present – BST script, sample data sheets, laptop	+/-
2. Opens interaction with “I wanted to meet with you to do a brief training on how to report data on your daily notes.”	+/-
3. Trainer reads sample goal. Identifies measurement system and objective.	+/-
4. Trainer informs participant that the measurement system, data value, and whether the objective was met should all be marked on the data sheet	+/-
5. Trainer informs participant of how to enter the values on their data sheet into Pro-Filer®	+/-
6. Trainer informs participant what to do if a goal is not completed	+/-
7. Asks participant if they have any questions	+/-
8. Trainer models how to document and enter 3 sample goals following the TA	+/-
9. Trainer asks participant to practice documenting and reporting data for 3 different sample goals	+/-
10. Trainer review errors and highlights correct answers	+/-
11. Rehearsal is repeated until 100% competency is reached	+/-
Total +'s >	/11
% Successful >	

APPENDIX F

SUPERVISOR PRE-ASSESSMENT SOCIAL VALIDITY QUESTIONNAIRE

Social Validity Questionnaire for Supervisors – Pre-Assessment

Name: _____

Please indicate the extent to which you agree or disagree with the following statements regarding data reporting as it relates to your role in the CAAPP program by circling a number that most closely reflects your opinion.

- | | Strongly
Disagree | Disagree | Neutral | Agree | Strongly
Agree |
|---|------------------------------|-----------------|----------------|--------------|---------------------------|
| | 1 | 2 | 3 | 4 | 5 |
| 1. Accurate data reporting in daily progress notes is important for my job as a supervisor. | 1 | 2 | 3 | 4 | 5 |
| 2. Accurate data reporting in daily progress notes is important to the success of CAAPP and its clients. | 1 | 2 | 3 | 4 | 5 |
| 3. With the current procedure for data reporting, I can obtain accurate data to complete my job responsibilities (e.g., monthly reports, outcome development) | 1 | 2 | 3 | 4 | 5 |
| 4. Improving data reporting would have a positive effect on client progress. | 1 | 2 | 3 | 4 | 5 |
| 5. An assessment that quickly identifies why a staff performance issue (e.g., poor data reporting) is occurring would be beneficial in my current position. | 1 | 2 | 3 | 4 | 5 |
| 6. Knowing why a performance issue is occurring would be helpful in finding a solution for improving performance. | 1 | 2 | 3 | 4 | 5 |
| 7. I would be able to regularly complete a staff performance assessment if the time commitment was 60 minutes or less. | 1 | 2 | 3 | 4 | 5 |
| 8. I am clear on the expectations for reporting data in my daily progress notes (e.g., documenting prompts, properly recording when a goal is not run, selecting the correct measurement such as frequency, duration, or % independent) | 1 | 2 | 3 | 4 | 5 |
| 9. The current training staff receive on data reporting is effective and sufficient. | 1 | 2 | 3 | 4 | 5 |
| 10. When prioritizing my job responsibilities, I have enough time to meet with staff and review performance expectations. | 1 | 2 | 3 | 4 | 5 |

APPENDIX G

PARTICIPANT PRE-INTERVENTION SOCIAL VALIDITY QUESTIONNAIRE

Social Validity Questionnaire for Staff - Pre Intervention

Name: _____

Please indicate the extent to which you agree or disagree with the following statements regarding the process of collecting and reporting data in your daily progress notes by circling a number that most closely reflects your opinion.

- | | Strongly
Disagree | Disagree | Neutral | Agree | Strongly
Agree |
|---|------------------------------|-----------------|----------------|--------------|---------------------------|
| | 1 | 2 | 3 | 4 | 5 |
| 1. I understand why reporting data in daily progress notes is required. | 1 | 2 | 3 | 4 | 5 |
| 2. Accurate data reporting in daily progress notes is important to ensure skills are taught correctly. | 1 | 2 | 3 | 4 | 5 |
| 3. Accurate data reporting in daily progress notes is an important measure of my client's progress. | 1 | 2 | 3 | 4 | 5 |
| 4. I am clear on the expectations for reporting data in my daily progress notes (e.g., documenting prompts, properly recording when a goal is not run, selecting the correct measurement such as frequency, duration, or % independent) | 1 | 2 | 3 | 4 | 5 |
| 5. The current progress note in Profiler™ is easy to use. | 1 | 2 | 3 | 4 | 5 |
| 6. I understand how to report data for each goal in the current progress note in Profiler™. | 1 | 2 | 3 | 4 | 5 |
| 7. If I have questions about data reporting, I know who to contact and how to contact them. | 1 | 2 | 3 | 4 | 5 |
| 8. Overall, the current process of reporting data is sufficient and I would not make any major changes. | 1 | 2 | 3 | 4 | 5 |
| 9. Additional training on data reporting would be helpful. | 1 | 2 | 3 | 4 | 5 |

APPENDIX H

SUPERVISOR POST-INTERVENTION SOCIAL VALIDITY QUESTIONNAIRE

Social Validity Questionnaire for Supervisors – Post-Intervention

Name: _____

Please indicate the extent to which you agree or disagree with the following statements regarding the PDC-HS by circling a number that most closely reflects your opinion.

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
	1	2	3	4	5
1. The PDC-HS was easy to use.	1	2	3	4	5
2. Before using the PDC-HS, I was confident in assessing staff performance problems.	1	2	3	4	5
3. After using the PDC-HS, I was confident in assessing staff performance problems.	1	2	3	4	5
4. The time requirements of completing the PDC-HS are reasonable.	1	2	3	4	5
5. The indicated intervention is easily applied within my daily supervisory responsibilities.	1	2	3	4	5
6. The indicated intervention had a positive effect on accurate data reporting for my cases.	1	2	3	4	5
7. Overall, the PDC-HS is an effective tool to identify and improve staff's accurate completion of data reporting.	1	2	3	4	5
8. I am satisfied with the outcomes of using the PDC-HS.	1	2	3	4	5

Adapted from social validity measure used in: Bowe, M. (2017). *The use of the Performance Diagnostic Checklist for Human Services to increase paraeducators' effective implementation of error-correction procedures during discrete trial training*. Unpublished master's thesis, Utah State University, Logan, Utah.

APPENDIX I

PARTICIPANT POST-INTERVENTION SOCIAL VALIDITY

QUESTIONNAIRE

Social Validity Questionnaire for Staff – Post-Intervention

Name: _____

Please indicate the extent to which you agree or disagree with the following statements regarding the new procedures that have been implemented by circling a number that most closely reflects your opinion.

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
	1	2	3	4	5
1. Before receiving additional training/feedback, I was clear on the expectations for data reporting in a daily progress note.	1	2	3	4	5
2. After receiving additional training/feedback, I was clear on the expectations for data reporting in a daily progress note.	1	2	3	4	5
3. The additional training/feedback was helpful in completing my daily notes.	1	2	3	4	5
4. The additional training/feedback did not disrupt my daily job responsibilities.	1	2	3	4	5
5. Overall, I believe the additional training/feedback helped improve my daily data reporting.	1	2	3	4	5
6. Overall, I like the additional training/feedback that were implemented.	1	2	3	4	5
7. I would like the additional training/feedback to continue.	1	2	3	4	5

Adapted from social validity measure used in: Pampino, Jr., R. N., MacDonald, J. E., Mullin, J. E., & Wilder, D. A. (2003). Weekly feedback vs. daily feedback: An application in retail. *Journal of Organizational Behavior Management*, 23(2-3), 21-43.

APPENDIX J

MODIFIED PDC-HS

PDC-HS

Performance Diagnostic Checklist – Human Services

Employee's Name: _____ Interviewer: _____ Date: _____

Describe Performance Concern: Data fields in daily progress notes entered into Pro-File™ contain inaccurate information or are left blank

Instructions: Answer the questions below about the employee's specific performance problem (not the employee in general). The problem should be operationalized as either a behavioral excess or deficit. Items with an asterisk (*) should be answered only after the information is verified through direct observation.

TRAINING

1	<input type="radio"/> Yes <input type="radio"/> No	Has the staff member received formal training on this task? If yes, check all applicable training methods: <input type="radio"/> Instructions - Staff member was verbally told how to enter data accurately <input type="radio"/> Demonstration – Staff member was visually shown how to enter data accurately <input type="radio"/> Rehearsal – Staff member was given the opportunity to practice entering data accurately
2*	<input type="radio"/> Yes <input type="radio"/> No	Can the staff member accurately describe the target task and when it should be performed?* When asked, is the staff member able to accurately state how data should be recorded and when?
3	<input type="radio"/> Yes <input type="radio"/> No	Is there evidence that the staff member has accurately completed the task in the past?
4*	<input type="radio"/> Yes <input type="radio"/> No <input type="radio"/> N/A	If the task needs to be completed quickly, can the staff member perform it at the appropriate speed?* Is data recorded at the appropriate time when skills are taught?

TASK CLARIFICATION & PROMPTING

1	<input type="radio"/> Yes <input type="radio"/> No	Has the staff member been informed that he/she is expected to perform the task?
2*	<input type="radio"/> Yes <input type="radio"/> No	Can the staff member state the purpose of the task? Does the staff member know why accurate data reporting is required? Is important?
3*	<input type="radio"/> Yes <input type="radio"/> No	Is a job aid (e.g., a checklist, data sheet) for completing the task visibly located in the task area? Does the staff member have a checklist of steps to follow for accurate data reporting?
4	<input type="radio"/> Yes <input type="radio"/> No	Is the staff member ever verbally, textually, or electronically reminded to complete the task?
5	<input type="radio"/> Yes <input type="radio"/> No N/A	Is the task being performed in an environment well suited for task completion (e.g., not noisy or crowded)?

RESOURCES, MATERIALS, & PROCESSES

1	<input type="radio"/> Yes <input type="radio"/> No N/A	Are there sufficient numbers of trained staff available in the program?
2*	<input type="radio"/> Yes <input type="radio"/> No <input type="radio"/> N/A	If materials (e.g., teaching stimuli, preferred items) are required for task completion, are they readily available (e.g., easy to find, nearby)? If no materials are required, proceed to question 5. List materials below and indicate their availability. Item 1: <u>Data Sheet</u> Item 2: <u>Necessary items for teaching skill (e.g., visual schedule, communication modality, visual prompts)</u> Item 3: <u>Computer</u> Item 4: <u>Access to electronic note system</u>
3*	<input type="radio"/> Yes <input type="radio"/> No <input type="radio"/> N/A	Are the materials necessary to complete the task well designed for their intended purpose? Do the data sheets and materials needed for teaching skills support accurate data reporting? Do they indicate the correct method of recording data (e.g., frequency, duration)?
4*	<input type="radio"/> Yes <input type="radio"/> No <input type="radio"/> N/A	Are the materials necessary to complete the task well organized for their intended purpose? Are the materials easily accessible for staff members?
5	<input type="radio"/> Yes <input type="radio"/> No N/A	Is performance suffering from other tasks not being completed first? If so, indicate those tasks below. Task 1: _____ Task 2: _____ Task 3: _____ Task 4: _____
6	<input type="radio"/> Yes <input type="radio"/> No N/A	If you answered YES for Question 5, are other employees responsible for completing any of the earlier tasks in the process? If so, indicate the employee(s) below. Task 1: _____ Task 2: _____ Task 3: _____ Task 4: _____

PERFORMANCE CONSEQUENCES, EFFORT, & COMPETITION

1	<input type="radio"/> Yes <input type="radio"/> No	Is the staff member ever directly monitored by a supervisor? If so, indicate the frequency of monitoring. <input type="radio"/> hourly <input type="radio"/> daily <input type="radio"/> weekly <input type="radio"/> monthly <input type="radio"/> Other: _____
---	--	---

2	<input type="radio"/> Yes <input type="radio"/> No <input type="radio"/> Yes <input type="radio"/> No N/A	<p>Does the staff member ever receive feedback about the performance? If yes, indicate below. By whom? _____ How often? _____</p> <p>Check all that apply: Feedback Focus: <input type="radio"/> Positive (i.e., praising staff for accurate data reporting) <input type="radio"/> Corrective (i.e., informing staff of errors) Feedback Type: <input type="radio"/> Written <input type="radio"/> Verbal <input type="radio"/> Graphed <input type="radio"/> Other:</p>
3	<input type="radio"/> Yes <input type="radio"/> No <input type="radio"/> Yes <input type="radio"/> No N/A	<p>Does the staff member ever see the effects of accurate task completion? Does the staff member see the effects of accurate data recording such as in a monthly report or in client progress? If yes, how? _____</p>
4	<input type="radio"/> Yes <input type="radio"/> No <input type="radio"/> Yes <input type="radio"/> No N/A	<p>Is the task particularly effortful or difficult?</p>
5	<input type="radio"/> Yes <input type="radio"/> No <input type="radio"/> Yes <input type="radio"/> No N/A	<p>Do other tasks appear to take precedence over the target task? If yes, indicate these tasks below.</p> <p>Task 1: _____ Task 2: _____ Task 3: _____ Task 4: _____</p>

INTERVENTION PLANNING

Instructions: Each item scored as *NO* on the PDC-HS should be considered as an opportunity for intervention with priority given to areas in which multiple items are endorsed. Interventions may be implemented concurrently or consecutively, with the latter option being preferred for settings in which staff resources are limited. Sample interventions and illustrative literature citations for each area are provided below

Area	Item #	Sample Intervention(s)	Literature Citations
Training	1, 2, 3, 4	Behavioral skills training (i.e., instructions, modeling, rehearsal, feedback)	<ul style="list-style-type: none"> • Barnes, Dunning, & Rehfeldt (2011) • Nabeyama & Sturmey (2010)
		Improved personnel selection	<ul style="list-style-type: none"> • Gatewood, Feild, & Barrick (2008)
Task Clarification & Prompting	1, 2	Task clarification & checklists	<ul style="list-style-type: none"> • Cunningham & Austin (2007) • Gravina, VanWagner, & Austin (2008) • Bacon, Fulton, & Malott (1982)
	3, 4	Prompts	<ul style="list-style-type: none"> • May, Austin, & Dymond (2011) • Petscher & Bailey (2006)
	5	Change/alter task location	<ul style="list-style-type: none"> • Green, Reid, Passante, & Canipe (2008)
Resources, Materials, & Processes	1	Adjust staffing	<ul style="list-style-type: none"> • Strouse, Carroll-Hernandez, Sherman, & Sheldon (2003)
	2, 3, 4	Improve access to (2), redesign (3), or reorganize (4) task materials	<ul style="list-style-type: none"> • Casella, Wilder, Neidert, Rey, Compton & Chong (2010)
	5, 6	Reassess task process and personnel	<ul style="list-style-type: none"> • Diener, McGee, & Miguel (2009) • McGee & Diener (2010)
Performance Consequences, Effort, & Competition	1	Increased supervisor presence	<ul style="list-style-type: none"> • Brackett, Reid, & Green (2007) • Mozingo, Smith, Riordan, Reiss, & Bailey (2006)
	2	Performance feedback	<ul style="list-style-type: none"> • Arco (2008) • Green, Rollyson, Passante, & Reid (2002)
	3	Regularly highlight task outcomes	<ul style="list-style-type: none"> • Methot, Williams, Cummings, & Bradshaw (1996)
	4	Reduce task effort	<ul style="list-style-type: none"> • Casella, Wilder, Neidert, Rey, Compton, & Chong (2010)
	5	Reduce aversive task properties	<ul style="list-style-type: none"> • Green, Reid, Passante, & Canipe (2008)

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APPENDIX K

BEHAVIOR SKILLS TRAINING SCRIPT

1. Hi _____. I wanted to meet with you to do a brief training on how to report data in your daily notes.
2. First, I would like to review a sample goal with you. I'm going to read a goal and then outline the steps of recording the data.
3. [Read sample goal] The measurement system in this goal is _____ and the objective is _____.
 - a. You will mark the measurement system on your data sheet and then write down the data value. [Provide example from goal – (e.g., you will mark duration and enter how many minutes)]
 - b. You will mark whether the objective was met or not.
 - c. When completing your note in Profiler, you will select _____ as your measurement system just like you marked on the data sheet and then enter the data value.
 - d. You will also select “yes” or “no” from the drop-down box to indicate whether the objective is met.
 - e. If the goal was not run for any reason, do not enter anything and write a single sentence at the bottom of your note identifying the goal and why it was not completed. For example, John's shopping goal was not completed today because he did not have any money.
 - f. Do you have any questions?
4. Next, let's practice and I will show you how to document your data on the data sheet and in your note. [Supervisor will model how to document and enter 3 sample goals following the task analysis]
 - a. Do you have any questions?
5. Finally, I would like you to practice documenting and reporting data for 3 sample goals without my help. [Present participant with sample goals, sample data, and data sheet. Provide them with the laptop to enter a practice note in Profiler]
6. [Supervisor will review errors and highlight correct answers. Step 5 will repeat until the participant reaches 100% competency]

APPENDIX L

PERFORMANCE FEEDBACK SCRIPT

1. **Hi _____ . I wanted to meet with you to review some of the notes you have submitted recently.**
2. **You've been doing a great job with/Thank you for _____**
(insert a general positive statement specific to the staff member. For example, "Thank you for submitting your notes on time last week. That's a big help for our data collection.")
3. **I wanted to highlight some things on your notes. You do really well/do a good job _____** (insert a specific positive statement directly related to the note. For example, "You do really well documenting John's progress at his volunteer site. Thank you for making sure you have the correct measurement system and following the task analysis")
4. **Some things I want to review with you are _____** (insert areas needing improvement. For example, "I would like to review what to do when you are not able to run a goal and what kind of data we are looking for for John's exercise goal.")
5. **Specifically, _____** (insert statement related to specific errors. For example, "When you ran John's exercise goal last Wednesday, I noticed that you selected frequency instead of duration. Our objective with the goal is to increase his duration on the treadmill so it is important to know how long he is exercising. When you choose the measurement system in your note, make sure you are selecting duration and then enter the length of time in minutes. Here is where you can select duration and enter the minutes. Do you have any questions about how to select duration?")
6. **I'm going to look at the next note you submit to make sure everything is correct. I will text/email you after I review the note. Do you have any questions about anything we have talked about or data recording in general?**
7. **Thank you for taking the time to meet with me to review your notes. If you have any questions you can email or call me. I appreciate all the work you do with _____ .**

Script adapted from steps outlined in Reid, D. & Parsons, M. (1996). A comparison of staff acceptability of immediate versus delayed verbal feedback in staff training. *Journal of Organizational Behavior Management*, 16(2), 35-47.