Performance Management Training Evaluation in an Autism Treatment Facility

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PERFORMANCE MANAGEMENT TRAINING EVALUATION IN AN AUTISM TREATMENT FACILITY

by

James D. Morrison

A dissertation submitted to the Graduate College in partial fulfillment of the requirements for the Degree of Doctor of Philosophy Psychology Western Michigan University August 2020

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The demand for Board Certified Behavior Analysts (BCBA) has increased dramatically since 2010 (Burning Glass Technologies, 2019). A core component of a BCBA’s role is to provide supervision to Board Certified Assistant Behavior Analysts (BCaBA) and other paraprofessionals. Currently there is a lack of research on effective supervision training in the ABA literature. This study evaluated a supervision training program based on the Operant Model of Effective Supervision developed by Komaki (1986). The training developed for this study incorporated basic OBM concepts such as behavioral pinpointing, feedback, and goal setting as well as concepts such as work sampling, which the Operant Model has indicated is a component of effective supervision. This study attempted to assess the effects of this training using an in-basket assessment. No significant differences were found for the number of antecedent or consequence responses provided on the assessment between the two groups. A significant difference was found for the number of work sampling responses; however, the effect was observed in the opposite of the anticipated direction.
I would first like to express my gratitude for my parents, Dave and Teresa, who have always encouraged me to do my best. They have played a foundational role in shaping my behavior and setting me on the path that has led me to this moment. I would also like to thank my fiancé Raechel, who has helped me keep things in perspective during the times when I’ve felt overwhelmed. I’d like to thank my committee Heather, Doug, Alyce, and Jane for providing the guidance and wisdom needed to complete this research. I’d especially like to thank Heather for the years of patience, compassion, and counseling she has provided since I first became her graduate student back in 2011. It’s been a long road to get here and I feel very fortunate to have her as my mentor. Finally, I’d like to thank the wonderful people at Therapeutic Pathways who helped make this project a reality; Jane, Coleen, Jill, Ashley, and Zach. Ashley and Zach, I appreciate all of the time you spent developing the modules and supporting the training roll out. To Jane, Coleen, and Jill, I’d like to thank you all for your encouragement, your expertise, and your patience while helping to develop and implement this project.

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INTRODUCTION

The number of job postings demanding a Board Certified Behavior Analyst (BCBA) or a Board Certified Assistant Behavior Analyst (BCaBA) more than doubled between 2017 and 2018; from 8,131 to 18,313 (Burning Glass Technologies, 2019). Between 2012 and 2014, the number of newly credentialed behavior analysts grew at nearly the same rate; 1,817 in 2012 to 3,184 in 2014. This growth in the field of behavior analysis is largely due to two factors. First, all 50 states now have Autism insurance coverage (Bernhard, 2019). Second, an increase in the number of states requiring licensure to practice; nine in 2012, 19 in 2014, and 30 as of 2019 (Burning Glass Technologies, 2015; Licensure and other regulations of ABA practitioners, 2019). For those states with licensing laws, a BCBA would also need to apply for that state’s license in order to operate as an applied behavior analyst and to provide Applied Behavior Analytic (ABA) services. The purpose of certification and licensure regulations is to ensure that anyone providing ABA services is professionally qualified and operating within the scope for which those services may be offered (Dorsey, Weinberg, Zane, & Guidi, 2009).

The acceptance of behavior analytic services as medical services by definition requires states to consider licensure regulations. Often the reason licensure laws are passed in states is because of pending or recently established autism insurance laws (Behavior Analyst Certification Board, 2012). This shift in licensure requirements and the acceptance of healthcare funding for behavioral treatments of autism spectrum disorder has also changed which industries have more demand for credentialed behavior analysts. In 2012, 37% of job postings were in healthcare and 41% were in educational services. In 2014, 46% of job postings were in healthcare and only 28% were in educational services. While the job postings for educational services have grown,
especially for special education teachers and teacher assistants, the rate of growth has been much higher in healthcare (Burning Glass Technologies, 2015). Current and future BCBAs will face two challenges as a result of these trends.

First, the increasing number of persons training to become BCBAs or BCaBAs will increase the demand for supervision. BCBAs must obtain 1500 hours of supervision and BCaBAs must obtain 1000 hours of supervision before becoming eligible to test for their certification (Behavior Analyst Certification Board, 2016). Those BCBAs who are providing supervision will likely be asked by the agencies and organizations they work for to support more and more trainees. Seeing this need, the Behavior Analyst Certification Board (BACB) began requiring those providing supervision to take an 8-hour supervision training course as well as an online module covering the BACB’s Experience Standards (Behavior Analyst Certification Board, 2016). The goal of these requirements was to improve the quality of the supervision being provided.

The second challenge of state licensure and insurance law reform is the new demands of insurance payers on paraprofessional credentialing. The BACB developed a credential to meet insurance payer criteria called the Registered Behavior Technician (RBT) specifically for this role (Behavior Analyst Certification Board, 2013). To maintain this credential, the RBT must be supervised for 5% of treatment hours provided. If a BACB has a weekly caseload where their clients receive 300 treatment hours, they will need to provide 15 hours of supervision just to their RBTs every week. With all of the supervision BCBAs conduct, it quickly becomes important for the organizations that employ them to develop methods of promoting effective supervision practices.
Operant Leadership

Komaki, Zlotnick, and Jensen (1986) developed an assessment tool to determine exactly what separated effective supervisors from their ineffective counterparts. They called this tool the Operant Supervisory Taxonomy and Index (OSTI). The OSTI allows an observer to code every possible behavior a supervisor may engage in. The original model included seven categories under which supervisor behaviors could be coded (see Figure 1): solitary activities; non-work related interactions; work related interactions about their own performance; about someone else’s performance as performance antecedents, monitors, or consequences; or not about anyone’s performance. The OSTI was later revised to include eight categories (Komaki, 1998): performance monitors, performance consequences, performance antecedents, own performance, work-related, non-work related, not communicating, and solitary. This assessment was used and adapted by Komaki to derive the Operant Model of Effective Supervision. This model posits that effective supervision is mediated by the same operant principles found in the science of behavior analysis (Komaki, 1998).

![Figure 1. Original Operant Leadership Categories](image)

Komaki first used the OSTI to assess the performance of supervisors in 1986. The purpose of this first study was to determine if the recently developed taxonomy could indeed
distinguish between managers considered effective or marginal. The study was conducted at a large medical insurance firm with 24 managers; 12 managers rated as effective and 12 managers rated as marginally effective. Managerial effectiveness was based on rankings and ratings given by each division’s vice-president. The vice-presidents also rated these same managers on their technical expertise or knowledge. Each manager was observed using the OSTI during 30-minute observation periods using a momentary time sampling procedure on 20 different occasions over seven months.

Komaki (1986) found that the effective managers group engaged in performance monitoring significantly more often than the marginally effective managers. Specifically, these effective managers engaged in significantly more work sampling. Work sampling is the behavior of directly observing a performer engaged in a work task or examining the direct product of that work task. Two-thirds of the marginally effective managers Komaki observed never actually engaged in work sampling once during the entire study. Komaki also found that the manager’s technical knowledge was not related to how often they engaged in performance monitoring, suggesting that even if an employee is skilled in their job, they may not be skilled in managing others.

Komaki (1986) also found that there were no differences between the two groups for the number of positive, neutral, and negative consequences they provided. At first glance this might imply that providing frequent consequences is not a behavior related to effective supervision. However, one behavioral interpretation would be that frequent consequences alone do not create effective supervisors. Consequences must be contingent to increase performance (Daniels & Bailey, 2014). If managers do not frequently monitor the performance of their subordinates then they will be less likely to provide contingent consequences (Komaki, Desselles, & Bowman,
This implies that while the two groups did not differ on the quantity of consequences provided, the effective managers were more likely to provide contingent consequences that could affect performance. This study is limited, however, in several important areas. First, the authors were unable to collect any direct measures of performance for the subordinates of the two groups, so it is unknown whether the subordinates of the group rated as effective actually performed better in their work tasks than the subordinates of the group rated as marginally effective. Second, the ratings provided by the vice-presidents were subjective assessments of the manager’s ability to motivate others, so ascribing the difference in performance monitoring as an objective measure of supervisory effectiveness is beyond the scope of this study. Lastly, the actual observed difference between the two groups for providing performance monitors was an average of 2.9% of intervals for the effective group and 2.0% of intervals for the marginally effective group; more specifically the difference in work sampling was an average of 0.5% of intervals for the effective group and 0.1% of intervals for the marginally effective group. While these results were statistically significant it could be argued the differences were not practically significant.

**Performance Monitors and Consequences**

Komaki et al. (1989) used a modified version of the OSTI to investigate whether previous findings, which implied that effective managers monitored performance more often than marginally effective managers, would extend to another setting with easily measured direct outcomes of performance. This study arranged for 19 skippers to be assessed during a sailing regatta using the Operant Supervisory Team Taxonomy and Index (OSTTI). The OSTTI included the previous major categories of the OSTI but also included a subcategory of team coordination. This study also used a continuous observation procedure to ensure low frequency
behaviors were recorded. Each skipper was randomly assigned a crew of three and one of the identical J-24 sailboats for each race. Two skippers participated in two races, 12 in three races, and five in four races. Each race was composed of ten boats.

Skippers were observed during each race and also during the preparation phase before each race. Komaki et al. (1989) found that the skippers who finished higher in the standings engaged in performance monitoring more frequently and also provided more consequences during the race. There was no correlation found between performance monitors and consequences during the preparation phase and the outcome of each race. These findings suggest that effective supervisors will engage in frequent performance monitoring and will deliver frequent contingent consequences based on those monitors. A limitation of this study however is that it was a contrived experiment and therefore did not include many of the factors present in an actual workplace. Some of the typical workplace factors that may influence the effects of performance and the actual impact of performance monitoring could include: salaries, performance bonuses, and established workplace relationships or friendships.

Komaki and Newlin (1990) evaluated the validity of using an in-basket assessment to assess supervisory behaviors with 12 computer managers. Each manager was given an in-basket assessment in which they responded to 21 different messages. These messages or memos ranged from routine reports to reports of flagrant problems or urgent requests. Each manager was given one hour to respond to the 21 memos, indicating exactly what they would say or do. The managers were then observed using the OSTI and correlation tests were calculated between the scores on the in-basket assessment and the time spent performance monitoring and providing consequences. Strong positive correlations were found between the in-basket assessment scores and performance monitoring and consequences, $r = .57$ and $r = .60$ respectively. This study
provides some evidence that a manager’s responses to an in-basket assessment could indicate how likely they are to engage in behaviors like performance monitoring and providing consequences. If so, then in-basket assessment tools could be used as a method to evaluate the effectiveness of supervisory training and help predict how well the skills learned in training might transfer to the job setting.

**Reliability and Validity of In-Basket Assessments**

Schippmann, Prien, and Katz (1990) reviewed the literature on in-basket assessments to determine the reliability and validity of the tool in measuring performance. The review looked at parallel forms reliability as well as split-half reliability. Parallel or alternate forms reliability is a measure of reliability obtained by administering different versions of the same assessment tool to the same group of participants and correlating the results. Split-half reliability is a measure of reliability obtained by randomly sampling half of the items from an assessment tool and correlating the results between those items and remaining half of the assessment. In the studies reviewed, parallel forms reliability ranged between 0.15 to 0.43 depending on whether the in-basket situations were different or the same. For example, lower reliability was observed in a study that compared three in-basket assessments meant to assess administrative performance. Two forms were based on a school situation and one form was based on a business situation. Comparisons between the two school forms had higher reliability than the comparisons between either school form and the business form. The authors stated that individual performance for alternate forms reliability was marginal at best. Split-half reliability was more varied with reliabilities ranging from 0.19 to 0.95. The authors observed that studies with greater rigor in content development as well as systematic and objective scoring procedures resulted in higher reliability values.
Interrater reliability can be a contributing factor to poor split-half and parallel forms reliability (Schippmann et al., 1990). If the persons rating the assessment tool are not consistently scoring the same, then other forms of reliability will be negatively impacted. The reliability data from the studies Schippmann et al. (1990) reviewed were much higher for interrater reliability than for split-half or alternate forms reliability, with correlations averaging between 0.49 and 0.95. Of those same correlations only 15 of 41 comparisons were below 0.80. Schippmann et al. (1990) recommended additional research into the reliability of in-basket assessments and described the consistency of individual performance as marginal, at best.

In their review of the literature, Schippmann et al. (1990) also examined the content, criterion, and construct validity of in-basket performance measures. Content validity is the extent to which assessment items are representative of the domain the test seeks to measure. Criterion validity is the extent to which a measure is related to a concurrent and/or a predicted outcome. Construct validity is the degree to which an assessment measures what it purports to measure. None of the reviewed studies reported procedures that followed a test plan or item budget following conventional procedures to establish content validity. Some studies did report a job analysis but did not have systematic procedures to ensure that information was adequately included in the development of the in-basket assessment.

Schippmann et al. (1990) analyzed 22 different studies that reported criterion validity in reference to grades, other test scores, salary levels, job progression, rankings, and rating on other job performance dimensions. They summarized the findings of these studies as showing a number of significant correlations between in-basket performance measures and various criteria that was sufficient to support the future development and use of in-basket assessments for
decision making purposes. One caveat the authors provided, however, was that some studies with criterion group designs may have artificially inflated correlations by using extreme groups.

There were only four studies reviewed that assessed construct validity. The results of those assessments were described as encouraging but not convincing for either hypothetical constructs or job performance constructs. Overall, Schippmann et al. (1990) reported that evidence for validity is marginal at best and was higher in settings where the assessment was constructed for a defined target job.

**Supervision in Human Services**

Methot, Williams, Cummings, and Bradshaw (1996) evaluated whether a supervisor training program improved supervisor performance as well as direct care staff performance. This study included five supervisors and seven staff members at a residential facility for persons with developmental disabilities. Using a multiple baseline design, each supervisor and staff member was observed before and after training with the OSTI. Observations occurred in 20-minute sessions with 30-second intervals. During the first 30 seconds the observer would monitor the subject, then in the next 30 seconds they would record what had occurred in the previous interval. Intervals were scored using the partial interval recording method. The supervisor training was composed of a three-hour didactic presentation that covered the following material: the importance of goal setting and feedback, benefits of negotiating goals between supervisors and staff, the behavioral components of a feedback meeting, and objective monitoring of staff performance. After the presentation, each supervisor watched a video tape that reviewed examples of performance feedback in human service settings.

During baseline, the five supervisors were observed providing contingent consequences in 1 or more of the 20 intervals recorded in each session for just 20%, 0%, 25%, 50%, and 36%
of sessions respectively. After training, the five supervisors provided far more consequences; the number of sessions in which they provided consequences in 5% or more of the observation intervals, 1 or more of 20 intervals, increased to 85%, 63%, 94%, 68%, and 83% of sessions respectively. A similar trend was observed with the seven staff members. In baseline, they provided contingent consequences to clients for more than 5% of the observation intervals in 62% of the sessions on average. After supervisors received the training, these direct care staff increased the percentage of sessions in which they provided consequences to clients during more than 5% of the intervals in 87% of the sessions on average. These data indicate that the supervisor training was successful at increasing the amount of performance contingent consequences supervisors provided to their staff (Methot et al., 1996). This increase in performance contingent consequences also increased the number of performance contingent consequences the staff were providing to clients.

To date this is the only study conducted in a health and human service setting that has used the OSTI to assess the effects of a supervision training on performance. The ABA literature is replete with examples of effective staff training programs and strategies (Parsons, Rollyson, & Reid, 2012). There are however very few evaluations of supervisory training within the ABA literature, outside the subject area of Organizational Behavior Management (OBM). A search of the ProQuest database, Behavior Analysis in Practice, The Journal of Applied Behavior Analysis, and The Journal of Applied Psychology only returned one study that assessed the training of supervisors.

Parsons and Reid (1995) investigated the effects of a training program on supervisors’ provision of quality feedback to direct care staff. The training included four hours of in person training followed by observation and feedback of target performance. The specific performance
target was the quality of feedback supervisors provided to direct care staff while teaching skills with clients. Parsons and Reid trained supervisors to provide feedback according to an eight-component system: begin by setting a positive tone, provide performance specific praise, describe at least one skill performed correctly, describe any skill performed in error, describe how erred skills should be performed, solicit questions, discuss what should happen next, end the feedback with a positive statement. The observation and feedback portion of the training continued until supervisors met criterion, 80% accuracy. The training program was successful at increasing supervisors’ use of the eight-component feedback process.

**Evaluating Supervisory Training**

Training can be evaluated using several different methods beyond simple tests of content specific knowledge. One approach is to use a questionnaire to assess employee opinion about both the training itself and their perceived use of the skills taught. While the social validity data is well suited to questionnaires, it is beneficial to obtain more direct measures of performance using other methods. One such method is the simulation exercise. Simulations will approximate the work environment while minimizing any approximations of the actual target behaviors of the training. This allows for an accurate and controlled assessment of the target behaviors. Unfortunately, this doesn’t allow for the assessment of training within the actual work environment. Simulations also usually involve just a few opportunities to demonstrate the target behavior (Komaki, Minnich, Grotto, Weinshank, & Kern, 2011).

A more accurate evaluation method is to observe the subjects in the actual work environment. This method can allow for a robust and accurate evaluation of training. There are however some limitations to this approach. This method can be very costly for the organization or the researcher with respect to time and money. To gather a sample large enough to examine
using statistical methods there would need to be observations of subjects on multiple occasions for extended periods of time. During the Methot et al. (1996) study, the authors conducted 1,451 observations, each lasting 20 minutes. Most businesses don’t have 481 hours to spend evaluating whether their training has improved target performance. This also doesn’t include all the resources needed to train observers or collect interobserver agreement (IOA) data.

In 2011, Komaki et al. conducted another set of experiments using the in-basket assessment as an evaluation method for a supervisory training. The first study was conducted with a merchandising agency and consisted of 12 lower to upper level managers. The second study was conducted with an Emergency Medical Service (EMS) Operations unit and consisted of 63 managers. Each study used a post-test only control group design with stratified random sampling. Participants were stratified based on rank and then randomly assigned to treatment or control conditions. Participants in the treatment condition received training based on the Operant Model of Effective Supervision.

For Experiment 1, training consisted of weekly 2-hour instructor led group classes for four weeks. For Experiment 2, the training was delivered in a single 5-hour class. During the training participants received didactic instruction in the effective components of the Model and opportunities to practice responding to and analyzing hypothetical performance problems. In both experiments the treatment group received the in-basket assessment following training and their scores were compared to the control group’s scores on the same assessment. The in-basket assessments were scored based on three behavioral categories: monitoring, providing consequences, and antecedents. Monitoring was divided by method (work sampling, self-report, and secondary source), consequences by type (positive, negative, neutral), and antecedents by
traditional versus motivational (instructions or reminders versus exhortations). Each category had a maximum number of points possible which was then converted to a percentage score.

In both experiments the treatment group had substantially higher scores for monitoring, positive/neutral consequences, and thanking the bearer of bad news (Komaki et al., 2011). Thanking the bearer of bad news was individually examined as particular kind of positive consequence; this response involved the manager saying “thank you” to a person presenting bad news. In experiment one the treatment group used work sampling nearly 52% of the time while the control group used it only 22%. In experiment two, work sampling for the treatment group had a score of 33% and the control group had a score of 25%. For experiment one, the treatment group relied on antecedents alone 5% of the time where the control group used antecedents alone 13% of the time. For experiment two the treatment group relied on antecedents alone 12% of the time and the control group relied on antecedents alone 24% of the time.

While these experiments indicate that training based on the Operant Model of Effective Supervision increased the use of performance monitoring and consequences on the in-basket assessment, there are several issues with the design of the experiments. The control group during Experiment 2 took the assessment before the treatment group began training. This control group was then given the training alongside the treatment group. Exposure between the two groups or external events that happened outside of the training could have affected the scores of the treatment group on the assessment. Also, for both experiments, the post-test only design does not allow for the analyses of inherent differences between the two groups. It is possible through simple sampling bias that the treatment groups were composed of more effective managers than the control groups.
Components of Effective Instructional Design

Central to a behavior analytic approach to instructional design is the principle of reinforcement. In *The Technology of Teaching*, Skinner (1968) proposed that, traditionally, learning behavior was controlled through aversive conditions, with a learner’s responding maintained by the avoidance or escape of punishment. One of the advances Skinner heralded with the advent of teaching machines was the ability to provide immediate positive feedback for a learner’s responses. Skinner cited the infrequency of reinforcement as one of the more serious criticisms of traditional classroom instruction. Johnson (2014) summarized Skinner’s discussions on teaching machines into six essential criteria: active engagement with the material, self-pacing, establishing mastery criteria for advancement, learner composed responses as preferable to multiple-choice responses, immediate and individualized feedback for responding, and programming instruction efficiently to progress quickly without the learner failing at any given step.

One of Skinner’s most notable associates in the field of Instructional Design was Susan Meyer Markle. The same principles she emphasized in programmed instruction and developing instructional materials for teaching machines can be translated to the field of computer-based instruction (CBI). In summarizing her writings, Zemke and Armstrong (1997) stated that three basic principles are behind effective instructional design: engage learners with opportunities to actively respond, minimize errors to enable learners to reach mastery, and provide feedback to learners based on their responding. The authors highlighted that the field of CBI would require effective instructional design methods and that the medium itself of web-based or computer-based training would not result in better outcomes. They contended that regardless of which system of instruction is utilized, active responding, minimal errors, and knowledge of results
would be needed to design effective programs. The instructional systems themselves may be more effective depending on the topic but those three principles are critical aspects of effective instruction.

**Computer Based Instruction**

The market research firm Global Industry Analysts predicts that the global e-learning market will reach $325 billion by the year 2025 (McCue, 2018). The global market for e-learning in 2015 was over $107 billion. Based on these estimates it could be argued that nearly all workers will be exposed to e-learning at some point in their careers. Johnson (2014) argued that behavior analysts are the most prepared to develop this type of technology due to an understanding of behavior-based instructional design, how technology relates to human behavior, and how to manage contingencies. An example of this preparedness to develop effective CBI is the research on computer-based racing. Computer-based racing occurs when the learner responds and advances too quickly through an e-learning program, resulting in frequent mistakes and learning less material (Crosbie & Kelly, 1994; Johnson & Dickinson, 2012; McCalpin, Johnson, & Ferragut, 2018). By understanding how to manage contingencies and how technology and human behavior interact, behavior analysts were able to develop an effective solution—post-feedback delays—which reduced computer-based racing.

Johnson and Rubin (2011) conducted a review of the CBI literature between 1995 and 2007. During this time, there were 42 comparisons between the effectiveness of CBI and other instructional formats; 40 of these comparisons showed that CBI was as good as or better than the alternatives. This illustrates that CBI is a reliable alternative to other modes of instruction. The review also found that interactive CBI was more effective in a majority of comparisons than non-interactive CBI, which again illustrates the importance of including active responding. The study
also reported that comparisons of response types indicated that learner responding with fill-in-the-blank responses was preferred to multiple-choice responses.

**Current Study**

As previously mentioned, the demand for behavior analysts is increasing rapidly. One of the major responsibilities of a BCBA or BCaBA is to provide supervision to both credentialed and non-credentialed staff. Given the lack of research on effective supervision training in the ABA literature, this study attempted to develop and evaluate a supervision training program based on the Operant Model of Effective Supervision developed by Komaki (1986). The Model has been shown repeatedly to distinguish between effective and ineffective managers on two dimensions: performance monitoring and contingent consequences. The training developed for this study incorporated basic OBM concepts such as behavioral pinpointing, feedback, and goal setting as well as concepts such as work sampling, which the Operant Model has indicated is a component of effective supervision. This study attempted to assess the effects of this training using an in-basket assessment.
METHOD

Setting

This study was conducted in a health and human services organization. The organization specializes in providing applied behavior analytic services to persons with autism and other developmental disabilities including social skills training, speech and language training, functional behavioral assessment, and discrete trial training (DTT). The organization is made up of five different treatment centers that also provide in-home services.

Each of the centers has a different physical layout but have roughly identical treatment materials and work stations. At each client treatment station, there is a white board or cork board for posting client specific information and reminders, drawers for treatment materials, a table, and chairs. At each employee workstation is a computer with access to the internal network, data management system, and practice management system. Each center has a reception desk, kitchen or lunch room, play room, and employee break room.

Participants and Informed Consent

There are several different roles within the organization responsible for providing and supporting the delivery of services; Behavior Technicians (BT), Lead Behavior Technicians, Program Assistants, Clinical Assistants, and Clinical Supervisors. Each client is assigned a Lead Behavior Technician, either a Program or Clinical Assistant, and a Clinical Supervisor. Depending upon the number of treatment hours and scheduling constraints the client may have anywhere between one to five BTs assigned to his or her case; on average there are two BTs assigned to a client. The Behavior Technician is the primary role responsible for the direct delivery of DTT procedures. The Lead Behavior Technician’s main role is creating program materials to support the delivery of DTT with a secondary role in providing DTT services and
supervision of BTs. The Program and Clinical Assistant roles are responsible for monitoring treatment progress and updating client treatment programs accordingly. The role frequently provides behavior support to BTs, supervises Lead Behavior Technician performance, and communicates with the client’s family. The Clinical Supervisor role is responsible for the initial client assessment and treatment plan creation. The role also supervises the Program and Clinical Assistant, approves changes to treatment protocols, and provides high level supervision of treatment for the client.

Participants were recruited from within the organization from the Clinical Supervisor, Clinical Assistant, and Program Assistant positions. Each participant was given an informed consent document (Appendix A) to allow for the voluntary use of their data in this study. In total, 34 participants agreed to participate in the study, however, only 26 participants completed the pre-test assessment outlined in the Procedures section below. Only 21 participants completed the post-test assessment and were included in the final analysis.

**Dependent Variables**

The primary dependent variable (DV) for this study were the number of antecedent, consequence, and work sampling responses provided on an in-basket assessment (Appendix B). This assessment was created and scored based on the methodology used by Komaki et al. (2011). This methodology divided participant responses into four categories; antecedent statements, consequence statements, work sample statements, and neutral statements. Antecedent responses were directives, instructions, reminders or other statements conveying expectations about performance or having the intent to motivate. Consequence responses could be positive or negative and included statements of congratulations, letting the sender know of actions taken, recognition, thanking the bearer of bad news, empathy, threats, punishment, and so on. Work
sample responses included any statement of monitoring performance or the outputs of performance through self-report, a 3rd party, or directly by the participant. Neutral responses included any statement that did not fall into the other three response categories and could vary greatly depending on the context. Secondary variables included a participant satisfaction survey (Appendix C).

**Inter-observer Agreement**

Inter-observer Agreement (IOA) data were collected for one-third of the assessments included in the final analysis. These assessments were selected at random for seven pre-tests and seven post-tests. These assessments were graded independently by the primary investigator and a research assistant. Each assessment question was then reviewed to determine if responses were scored differently; any differences were then discussed until the investigator and research assistant agreed on how the response should be scored. Point-by-point IOA was calculated by dividing the number of agreements by the sum of the agreements and disagreements and then multiplying the quotient by 100. The overall average IOA was 81% with a range of 70% to 90%.

**Independent Variable**

The independent variable (IV) was the leadership and performance management training program. The training was delivered through the organization’s online learning management system (LMS) as well as through a training workbook (Appendix D). The training covered several areas of leadership and performance management including: pinpointing and measuring performance, receiving and delivering feedback, goal setting, diagnosing performance problems, performance monitoring strategies, and self-management strategies (Appendices E-J). The knowledge content of these topic areas was delivered through the organization’s LMS. This software allowed for the integration of active student responding questions and tracking of
participant progress. The training workbook presented the participants with guided notes and additional exercises for each learning module. The guided notes and exercises provided further opportunities for the participants to actively respond during the delivery of the training content. The final exercise prompted participants to conduct a performance management intervention based on what they had learned during the training program.

**Experimental Design and Analysis**

This study used a blocked group design. Blocking is a method of grouping experimental units that are similar to each other to limit the variability they may contribute. The variable being blocked must be known in advance, prior to random assignment. The blocking variable for this study was the participants’ role within the organization. This study included two groups; a no training group (Group 1) and a training group (Group 2). Participants were randomly assigned to either receive or not receive the training using the blocking variable to ensure that no group randomly received a disproportionate number of senior or junior level staff.

The data were analyzed using an analysis of covariance (ANCOVA). This analysis is capable of removing error attributable to sampling error, allowing for a more powerful analysis than traditional analysis of variance (ANOVA). A typical source of sampling error can be attributed to covariates; variables that influence the effect of the independent variable(s) on the dependent variable(s). Covariates that were included in the analysis were the Pre-test scores, experience level as measured by years in the position, number of years in a supervisory role for ABA therapy, and self-reported number of courses completed in Systems Analysis, Training, or Leadership Development.
Procedures

Participants were recruited through email and group conference calls. Each treatment center location arranged a conference call with the primary investigator to review the informed consent document and to allow participants to ask questions about the study. Each participant expressing interest in the study was then emailed a copy of the informed consent. Any person agreeing to participate was then sent an email with the pre-test document attached as fillable form Word document. After receiving the completed pre-test document, if the participant was assigned to the experimental condition, their online module access was given. Participants could then access and complete the guided notes and training modules at their own pace. Participants needed to achieve an 80% or higher on the within module active student response questions to progress to the next training module. After completing all of the online modules, the participants received another email with instructions to complete the post-test document that was again attached as fillable form Word document. Participants assigned to the control condition received the post-test document at minimum two weeks after they completed the pre-test. After completing the post-test, the participants in the control condition were then allowed access to the training. Once the post-test was completed each participant received an email with the participant satisfaction survey.
RESULTS

In-basket Assessment Scores

Only 21 of the original 34 participants completed the pre-test and post-test assessments. Nine members of the no-training group (Group 1) and 12 members of the training group (Group 2) completed both assessments and are included in this analysis. These data are summarized in Table 1 below. Group 1 had a higher average number of responses on the post-test than on the pre-test, increasing from 77.78 to 81.33 total average responses. Group 2 also had a higher average number of responses on the post-test than on the pre-test, increasing from 72.58 to 83.08 total average responses. Group 1 provided approximately 2.5 more antecedents, 0.5 more consequences, and 0.5 more work sampling responses on the post-test than on the pre-test. Group 2 provided approximately 9.5 more antecedents, 4 more consequences, and 3 less work sampling responses on the post-test than on the pre-test.

Table 1. Average Number of Responses by Category

<table>
<thead>
<tr>
<th>Group</th>
<th>Antecedent Pre-test</th>
<th>Antecedent Post-test</th>
<th>Consequence Pre-test</th>
<th>Consequence Post-test</th>
<th>Work Sampling Pre-test</th>
<th>Work Sampling Post-test</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>33.67</td>
<td>36.11</td>
<td>29.22</td>
<td>29.89</td>
<td>14.89</td>
<td>15.33</td>
</tr>
<tr>
<td>2</td>
<td>27.33</td>
<td>36.83</td>
<td>32.17</td>
<td>36.25</td>
<td>13.08</td>
<td>10</td>
</tr>
</tbody>
</table>

The first set of analyses conducted were three simple one-way ANOVA tests to determine if there were any innate differences between the two groups due to sampling error. Group 1 made an average of 33.67 antecedent responses, 29.22 consequence responses, and 14.89 work sampling responses on the pre-test in-basket assessment; Group 2 made averages of 27.33, 32.17, and 13.08 respectively for those same response types. The differences between the two groups were not significant with p values of 0.17, 0.45, and 0.33 for antecedents, consequences, and work sampling respectively. These results (see Tables 2-4) indicate that the
two groups on average did not perform differently from each other on the pre-test in-basket assessment. If there had been significant differences between response types it might have indicated there were inherent differences between the two groups due to sampling error that were not controlled by the random assignment and blocking variable.

Table 2. *Antecedent Pre-test Score Comparison ANOVA*

<table>
<thead>
<tr>
<th>Source</th>
<th>df</th>
<th>SS</th>
<th>MS</th>
<th>F</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Group</td>
<td>1</td>
<td>206</td>
<td>206</td>
<td>2.05</td>
<td>0.169</td>
</tr>
<tr>
<td>Error</td>
<td>19</td>
<td>1915</td>
<td>101</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>20</td>
<td>2121</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 3. *Consequence Pre-test Score Comparison ANOVA*

<table>
<thead>
<tr>
<th>Source</th>
<th>df</th>
<th>SS</th>
<th>MS</th>
<th>F</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Group</td>
<td>1</td>
<td>45</td>
<td>45</td>
<td>0.61</td>
<td>0.445</td>
</tr>
<tr>
<td>Error</td>
<td>19</td>
<td>1391</td>
<td>73</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>20</td>
<td>1436</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 4. *Work Sampling Pre-test Score Comparison ANOVA*

<table>
<thead>
<tr>
<th>Source</th>
<th>df</th>
<th>SS</th>
<th>MS</th>
<th>F</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Group</td>
<td>1</td>
<td>17</td>
<td>17</td>
<td>1.01</td>
<td>0.328</td>
</tr>
<tr>
<td>Error</td>
<td>19</td>
<td>316</td>
<td>17</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>20</td>
<td>333</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The next set of analyses conducted were ANCOVA tests to determine whether or not there were significant differences between the two groups on the number of responses provided on the post-test for the three categories of responses. Covariates that were included in the analysis were the Pre-test scores, experience level as measured by years in the position, number of years in a supervisory role for ABA therapy, and self-reported number of courses completed in Systems Analysis, Training, or Leadership Development. The difference in the average number of antecedent responses was not significant between the two groups with a *p* value of 0.35 (see
Table 5). The difference in the average number of consequence responses was also not significant between the two groups with a $p$ value of 0.48 (see Table 6).

Table 5. Antecedent Response Comparison ANCOVA

<table>
<thead>
<tr>
<th>Source</th>
<th>df</th>
<th>Adj SS</th>
<th>Adj MS</th>
<th>$F$</th>
<th>$p$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Antecedent</td>
<td>1</td>
<td>146</td>
<td>146</td>
<td>0.94</td>
<td>0.348</td>
</tr>
<tr>
<td>Pre-test Score</td>
<td>1</td>
<td>413</td>
<td>413</td>
<td>2.64</td>
<td>0.125</td>
</tr>
<tr>
<td>Experience</td>
<td>1</td>
<td>0.40</td>
<td>0.40</td>
<td>0.00</td>
<td>0.960</td>
</tr>
<tr>
<td>Sup Experience</td>
<td>1</td>
<td>18</td>
<td>18</td>
<td>0.11</td>
<td>0.742</td>
</tr>
<tr>
<td>OBM Courses</td>
<td>1</td>
<td>162</td>
<td>162</td>
<td>1.04</td>
<td>0.348</td>
</tr>
<tr>
<td>Error</td>
<td>15</td>
<td>2341</td>
<td>156</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Adjusted Total</td>
<td>20</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 6. Consequence Response Comparison ANCOVA

<table>
<thead>
<tr>
<th>Source</th>
<th>df</th>
<th>Adj SS</th>
<th>Adj MS</th>
<th>$F$</th>
<th>$p$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Consequence</td>
<td>1</td>
<td>21</td>
<td>21</td>
<td>0.53</td>
<td>0.479</td>
</tr>
<tr>
<td>Pre-test Score</td>
<td>1</td>
<td>1853</td>
<td>1853</td>
<td>45</td>
<td>0.000</td>
</tr>
<tr>
<td>Experience</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>0.03</td>
<td>0.873</td>
</tr>
<tr>
<td>Sup Experience</td>
<td>1</td>
<td>31</td>
<td>31</td>
<td>0.76</td>
<td>0.397</td>
</tr>
<tr>
<td>OBM Courses</td>
<td>1</td>
<td>0.56</td>
<td>0.56</td>
<td>0.01</td>
<td>0.908</td>
</tr>
<tr>
<td>Error</td>
<td>15</td>
<td>611</td>
<td>41</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Adjusted Total</td>
<td>20</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The difference in the average number of work sampling responses was significant with a $p$ value of 0.013 (see Table 7). Group 1 provided on average 15.33 work sampling responses on the post-test, while Group 2 provided 10 work sampling responses on average (see Figure 2). This indicates that the training may have decreased the likelihood participants would provide work sampling responses to the assessment scenarios.
Figure 2. Average Number of Work Sampling Responses

Table 7. Work Sampling Response Comparison ANCOVA

<table>
<thead>
<tr>
<th>Source</th>
<th>df</th>
<th>Adj SS</th>
<th>Adj MS</th>
<th>F</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Work Sampling</td>
<td>1</td>
<td>96</td>
<td>96</td>
<td>7.84</td>
<td>0.013*</td>
</tr>
<tr>
<td>Pre-test Score</td>
<td>1</td>
<td>0.49</td>
<td>0.49</td>
<td>0.04</td>
<td>0.844</td>
</tr>
<tr>
<td>Experience</td>
<td>1</td>
<td>23</td>
<td>23</td>
<td>1.87</td>
<td>0.192</td>
</tr>
<tr>
<td>Sup Experience</td>
<td>1</td>
<td>31</td>
<td>31</td>
<td>2.57</td>
<td>0.130</td>
</tr>
<tr>
<td>OBM Courses</td>
<td>1</td>
<td>2</td>
<td>2</td>
<td>0.16</td>
<td>0.694</td>
</tr>
<tr>
<td>Error</td>
<td>15</td>
<td>183</td>
<td>12</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Adjusted Total</td>
<td>20</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note: *Significant at the p < 0.05 level

Satisfaction Survey

A qualitative survey was emailed to each participant upon completion of the training program. Of the 21 participants only 12 returned a completed survey; one from Group 1 and 11 from Group 2. The survey included eight multiple-choice questions (see Table 8); the response options were Strongly Disagree, Disagree, Neither Agree or Disagree, Agree, and Strongly Agree which were given a numerical value of 1-5 respectively. These numerical values will be referred to as agreement scores. The survey also included a space for participants to include written comments. The questions asking participants if the content of the training was easy to
understand and if the ASR questions were valuable both had the largest agreement score of 3.92; while the question with the lowest agreement score of 3.42 asked participants whether the workbook exercises were valuable to helping them understand and engage with the content of the training program. The only consistent comment made by the participants was that the assessment was very long. One participant commented that they felt like they had to rush through the assessment while another participant said they considered leaving the study because of the time required to finish the assessments.

Table 8. *Satisfaction Survey Scores*

<table>
<thead>
<tr>
<th>Question</th>
<th>Agreement Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>The training increased my proficiency in discussing and applying OBM principles</td>
<td>3.67</td>
</tr>
<tr>
<td>The training workbook exercises were valuable</td>
<td>3.42</td>
</tr>
<tr>
<td>The ASR questions were valuable</td>
<td>3.92</td>
</tr>
<tr>
<td>The scenarios presented in the assessment were similar to actual workplace situations</td>
<td>3.5</td>
</tr>
<tr>
<td>The content of the training was easy to understand</td>
<td>3.92</td>
</tr>
<tr>
<td>The training improved my ability to deliver effective feedback</td>
<td>3.83</td>
</tr>
<tr>
<td>The training improved my ability to identify antecedents and consequences of inappropriate behavior</td>
<td>3.67</td>
</tr>
<tr>
<td>The training improved my ability to effectively monitor performance</td>
<td>3.67</td>
</tr>
</tbody>
</table>
DISCUSSION

The goal of this study was to evaluate the effects of a supervisor training program on responses to an in-basket assessment. There was no significant difference found between groups for the number of antecedent responses or consequence responses provided on the post-test assessment. This indicates that the supervisor training did not alter how many antecedents or consequences the participants provided on the assessment. If the training had the desired effect, we would have expected the number of consequences provided by the experimental group to have increased. The number of antecedents would also have been expected to have decreased as the participants engaged in the desired responding of providing consequence or work sampling responses to the presented assessment items. The only significant result was for the number of work sampling responses provided, where the experimental group actually decreased in performance.

One possible explanation for the observed results is that the training program did not provide enough practice for the participants to obtain the desired skills. The modules on average only provided six ASR opportunities to test participant knowledge and there were no tests or quizzes provided outside of the e-learning modules. Additional opportunities to respond within the e-learning modules may have helped participants in the experimental group better learn the training content and could have made it more likely for them to respond with more consequence and work sample responses on the assessment. Repeated practice of the target behavior is a critical component of effective training.

A second explanation for the observed results is that all participants did not complete all aspects of the training program. The guided notes provided additional opportunities for the participants to interact with the e-learning modules and also included exercises for them to
practice the concepts of each module. Unfortunately, a majority of the participants did not interact with the guided notes with only 10 of the 21 participants having opened the file. Only seven of the 12 participants in the experimental group accessed the guided notes document. The learning management system can only show that the file was opened, it is possible that not even those 10 participants actually completed the guided notes. It would have been difficult for the participants to have the e-learning modules open on their screen while also actively following along with the guided notes, especially on a smaller 17” laptop screen. There were prompts to stop and complete the guided notes exercises but participants could have simply skipped the exercises and continued in the module. This could have compounded the effects of not having enough opportunities to practice the content during the e-learning modules to achieve mastery with the skills

Another explanation for the observed results was that the in-basket assessment was not a reliable instrument. The researcher designed the in-basket assessment used for this study based on the types of items used on the Operant Supervisory In-Basket Assessment (OSIBA) developed by Komaki and presented in the appendices of a dissertation by Minnich (2007). The OSIBA has the participant respond as the publisher of a magazine called FOODSTUFF DIGEST. The researcher designed the assessment used in this study so participants took on the role of a clinical supervisor in a clinic setting in the hopes it would provide scenarios that were more relatable to their current role with the health and human service organization. The logic behind this change was that an in-basket assessment with scenarios closely related to the participant’s current role would be more likely to evoke responding that accurately reflected how they would act in a supervisor’s role and would be a more engaging and satisfying assessment to complete. While none of the literature mentions assessing the test-retest reliability of the OSIBA,
it is possible the assessment used in the current study lacked that same type of reliability. In that case it would mean changes in performance may have been due to the instrument itself. For example, the average number of antecedent responses increased from 27.3 to 36.8 on the pre-test and post-test assessment respectively for the group that received the training. It is possible that the training had little impact on increasing that response rate and it is instead an artifact of the instrument’s reliability.

Limitations and Future Research

The sample size for this study was small with only 21 participants included in the final analysis. The within groups variances were 156, 41, and 12 for antecedent, consequence, and work sampling responses respectively. Power is the probability of not making a Type II error, which is when you fail to reject a null hypothesis that is actually false. To have an 80% probability of not making a Type II error using the antecedent response variance of 156 it would require 100 participants to detect a difference of five and 26 participants to detect a difference of 10. Using the work sampling response variance of 12, to obtain a power level of 0.8 would only require nine participants to detect a difference of five and just four participants to detect a difference of 10. Increasing the power level to 0.9 would further increase the required sample size. Future studies should anticipate moderate to high levels of within group variance and plan to include enough participants to detect any practical differences in performance. Alternatively, the in-basket assessment could be designed to create a composite score for each question to help limit the variability. The open-ended scoring method for total number of responses used in this study lends itself to higher variability then a scoring system with an established upper limit to total points possible.
Another limitation of this study, as previously mentioned, was that the researcher did not build in any contingencies for completing the workbook exercises. While the training modules included prompts to complete the workbook exercises, the training did not require any proof of completion to progress through the modules. The exercises were intended to provide opportunities to practice applying the content learned during the e-learning modules. Parsons et al. (2012) summarized early behavioral research indicating that performance skills require training that allows the learner to practice the targeted skills. Training programs that rely on lectures or presentation of written material are effective at increasing content knowledge but are ineffective at helping learners improve job or skill performance. Providing contingencies for completing the workbook exercises would have ensured participants had some practice in applying the e-learning content to work related scenarios. The responses required during the e-learning were simple content based multiple-choice questions and could not be considered practice of the target skills. Future studies should implement training that requires the learner to practice providing performance monitors and consequences by composing responses to scenarios presented in e-learning or during a roleplay scenario.

A final limitation of the current study is that the in-basket assessment was delivered using a fillable Word document that participants completed on their personal computers. Participants could have saved their pre-test assessment on their computer and then used it as a reference when completing the post-test assessment. Participants could also have simply copied their responses from the pre-test into their post-test assessment and then made minor changes to their response. While there is limited evidence to suggest this occurred, it is still a possibility that could have influenced the results. Future studies should either administer a paper-based assessment or be sure to eliminate the possibility that participants could retain a copy of any electronic
assessment. The participants for this study could have been required to work on the assessment from an internet-based portal that did not allow them to download a copy of the assessment to their personal computer.
REFERENCES


https://dx.doi.org/10.1007/BF03391738


https://doi.org/10.1007/BF03395815


https://doi.org/10.1080/01608061.2011.619393


APPENDIX A

Informed Consent
Principal Investigator: Heather McGee  
Student Investigator: James Morrison

You have been invited to participate in a research project. This project will serve as James Morrison’s dissertation for the requirements of a Doctor of Philosophy degree. This consent document will explain the purpose of this research project and will go over the time commitments, the procedures used in the study, and the risks and benefits of participating in this research project. Please read this consent form carefully and completely and please ask any questions if you need more clarification.

What are we trying to find out in this study?  
This study aims to gather information about the current knowledge level of Organizational Behavior Management principles in the BCBA and BCaBA community and how it relates to the performance of their duties.

Who can participate in this study?  
Anyone in the Clinical Supervisor, Clinical Assistant, or Program Assistant role that has not yet taken the Leadership and Performance Management Training series.

Where will this study take place?  
You may participate in this study at either your work station or at home. All study materials will be delivered through email or Therapeutic Pathways’ online learning management system.

What is the time commitment for participating in this study?  
Participants will complete two assessments, each will require between 1 hour and 1.5 hours to complete. There will also be a training satisfaction survey that will take between 10 and 30 minutes to complete.

What will you be asked to do if you choose to participate in this study?  
You will be asked to complete the two assessments and the training satisfaction survey.

What are the risks of participating in this study and how will these risks be minimized?  
You may experience some minor stress when you are completing the assessment. These risks will be minimized by the fact that you will be able to work at your own pace during the assessment. There is no time limit for completing the assessment.

What are the benefits of participating in this study?  
You will be contributing to the field of research on leadership and performance management training. You may also learn about this research through participation in the study. The findings from this study may be used to model future training and assessment in the field of behavior analysis.
Are there any costs associated with participating in this study?  
Besides the time commitment, there are no costs associated with participation in this study.

Is there any compensation for participating in this study?  
There is no compensation for participating in this study.

Who will have access to the information collected during this study?  
The student investigator, principle investigator, and research staff will have access to the data collected in the study. The data will remain confidential and will be stored in a locked filing cabinet in a locked office of the principle investigator at Western Michigan University for seven years. After seven years, the data will be destroyed. When you begin the study, you will be assigned a number so that your individual progress can be tracked while your identity is held strictly confidential. When the data of the study are presented or published, only your participant number will be used to identify you. Neither your name nor any identifying characteristics will be used.

What if you want to stop participating in this study?  
There are no consequences for withdrawing from the study. If you decide to discontinue with the study, you may inform the student investigator or principle investigator. You can choose to stop participating in the study at any time for any reason. The investigator can also decide to stop your participation in the study without your consent. You will not suffer any prejudice or penalty by your decision to stop your participation. You will experience NO consequences if you choose to withdraw from this study. Further, your decision will have no effect on your relationship with Western Michigan University or Therapeutic Pathways.

Should you have any questions prior to or during the study, you can contact the primary investigator, Dr. Heather McGee at 269-387-4460 or heather.mcgee@wmich.edu. You may also contact the Chair, Human Subjects Institutional Review Board at 269-387-8293 or the Vice President for Research at 269-387-8298 if questions arise during the course of the study.

This consent document has been approved for use for one year by the Human Subjects Institutional Review Board (HSIRB) as indicated by the stamped date and signature of the board chair in the upper right corner. Do not participate in this study if the stamped date is older than one year.

I have read this informed consent document. The risks and benefits have been explained to me. I agree to take part in this study.

By signing this consent document, I am giving my permission for data I provide in the course to be used as research data.
Please Print Your Name
APPENDIX B

In-Basket Assessment (Pre/Post Test)
Please complete the assessment in Word and email the file to morrison.james88@gmail.com.

Name:
Certifications held:
Years of experience working in a clinic setting:
Years of experience in conducting ABA Therapy:
Years of experience supervising others delivering ABA Therapy:
Positions held relevant to ABA treatment of Autism and other disabilities:
Courses or training taken in Systems Analysis, Training, or Leadership Development:
On the following pages, you will be completing an “in-box” exercise. This exercise will be putting you in the position of a Clinical Supervisor for the Pacific Coast Treatment Center (PCTC). The PCTC offers services in the center, at school, and in home. During the exercise, you will be responding to emails you’ve received at your desk. As the most senior Clinical Supervisor it is not uncommon for you to deal with issues from all over the center.

Instructions:
• Allocate time to respond to each of the 20 items.
• Allow for 60 to 90 minutes to complete this exercise.
• Respond to each item as you would normally. If you are arranging to meet with someone then tell us what you would say in the meeting.
• You may forward or copy anyone to the message just as you would in an email. Please note cc and the name of the person being copied.
• Formal responses aren’t necessary, simply talk how you would normally in that situation.

Example Question Item:

To: You
From: Molly Ringwald; Admin Assistant

The notebooks you ordered are here. What would you like me to do with them?

Example Response:

From: You
TO: ___Molly_____

I’ll come and get them after lunch today.

Other responses could have been:
Thanks Molly, can you bring them by my desk after lunch?
Or
I’ll send someone to pick them up.

The responses you choose to give can be long, short, formal, or informal, just remember to respond how you would normally in that situation. There will also be four response blanks available in case you would like to respond with separate messages to multiple people. Remember you can email anyone and everyone.

On the following page is a list of employees working at Pacific Coast Treatment Center (PCTC) and their role in the company. Feel free to print this page to use as a reference when responding to items later in the exercise.
Winona Ryder – Site Coordinator - Responsible for daily operations of the center.

Clinical Supervisors – Responsible for the development and supervision of client treatment programs, support Site Coordinator as needed.

You
Ally Sheedy – Clinical Supervisor
Corey Haim – Clinical Supervisor
Diane Lane – Clinical Supervisor

Clinical Assistant – Responsible for the evaluation of client treatment progress and data analysis, behavior support, supports Clinical Supervisors.

Jami Gertz – Clinical Assistant
Helen Hunt – Clinical Assistant
Judd Nelson – Clinical Assistant

Lead Behavior Technician – Responsible for development of client stimuli, behavior support, direct therapy, and general support for clinical staff.

Scott Baio – Lead BT
Sara Gilbert – Lead BT
Joan Cusack – Lead BT

Behavior Technician – Responsible for direct therapy. Since there are many that work at the center the following are BTs that work with your clients.

Ralph Macchio – BT
Mia Sara – BT
Jennifer Beals – BT
Alyssa Milano – BT
Tony Danza - BT

Molly Ringwald - Admin Assistant – Front desk client in-take and administrative support.

Tracey Gold – Staff Development – Responsible for selection, onboarding, and training of Behavior Technicians

Brooke Shields – Billing – Responsible for billing appointments and invoicing parents and insurance providers.
Shift availability for next semester due TODAY! I need to send to Winona and Scheduling dept. by tomorrow!

<table>
<thead>
<tr>
<th>Name</th>
<th>Received</th>
</tr>
</thead>
<tbody>
<tr>
<td>Scott Baio</td>
<td>Yes</td>
</tr>
<tr>
<td>Sara Gilbert</td>
<td>Yes</td>
</tr>
<tr>
<td>John Cusack</td>
<td></td>
</tr>
<tr>
<td>Ralph Macchio</td>
<td>Yes</td>
</tr>
<tr>
<td>Mia Sara</td>
<td>Yes</td>
</tr>
<tr>
<td>Jennifer Beals</td>
<td>Note: Help, having problems</td>
</tr>
<tr>
<td>Alyssa Milano</td>
<td>Yes</td>
</tr>
<tr>
<td>Tony Danza</td>
<td>Yes</td>
</tr>
</tbody>
</table>

From: You
To:
Message:

From: You
To:
Message:

From: You
To:
Message:

From: You
To:
Message:
Here’s the status update for next week’s Graduation Ceremony. It’s always so exciting to see the kiddos and their families celebrating their achievements! Sad I’ll be missing it since I’m on vacation starting tomorrow, good luck!

- The venue is reserved, I got a pretty good deal since we used the same place as last year.
- Still waiting for Jami Gertz to confirm if the caterer is available, was supposed to be booked by yesterday (FineFoods Catering, events@finefoods.com, (555) 543-5555)
- Judd Nelson is set to pick up the graduation plaques later today, will need to have someone look them over to check for any errors or missing plaques.
To: You
From: Tracey Gold - Staff Development

I know that John Stamos was scheduled to start working with one of your clients tomorrow but I’m a little worried about whether he’s ready. He’s doing well enough with the Discrete Trial Training, which I guess is the bulk of the job. I’m just worried about how he’ll handle any behaviors that come up and he hasn’t been showing as much enthusiasm as I’d like to see at this point in training. Debra in Scheduling thinks it will be impossible to find someone to cover the shift though. What do you think, should I keep him for another couple of days or do you want to risk it?

From: You
To:
Message:

From: You
To:
Message:

From: You
To:
Message:
When I was getting my lunch out of the break room yesterday I overheard a couple of the BTs that were having some inappropriate conversations about their weekend plans. Not too sure of their names but I would definitely recognize their faces. I wouldn’t have thought to tell you if they had been quieter about it, but they were loud enough I’m sure some clients passing in the hall could have heard them. I was thinking of making a sign to hang on the wall in there.
I just finished looking over the stimuli you asked some of the Leads to make earlier this week. Looks like they were able to find some great images but did a poor job laminating them. There’s air bubbles all over the images and they have some weird texture on them. They keep saying it’s the machine but I would guess they aren’t using it right, probably rushing through the job. Could you let them know what you think about this kind of work? It would sound better coming from a Clinical Supervisor.
I’ve got the morning session’s Behavior data for LP like you asked for. Monday (2/15) – 16 non-compliance behaviors, Wednesday (2/17) – 15 non-compliance behaviors, Friday (2/19) – 17 non-compliance behaviors. I don’t think the new protocol is helping.

Here’s the afternoon session’s Behavior data for LP. February 15th – 3 non-compliance behaviors, February 17th, 2 non-compliance behaviors, February 19th, 2 non-compliance behaviors. This new protocol seems to be working great.
To: You  
From: Helen Hunt - Clinical Assistant

Was looking over this week’s data for AD and that new protocol we put in place to reduce her stereotypy. Looks like it’s doing great here at the center and at home, but she’s not improving at school. I know her teacher Mr. Brooks has been a problem before with implementing our protocols but this one is pretty simple. What do you think?

From: You  
To: 

Message: 

From: You  
To: 

Message: 

From: You  
To: 

Message: 

From: You  
To: 

Message:
I just finished the new stimuli for TS’s new drills and put them in his station. Not sure when you wanted to make those drills active but the stimuli are available now. Took a while to find the right images but Scott helped me out and they look pretty good. That was the last set of stimuli you requested so let me know when you have more.
To: You  
From: Jami Gertz - Clinical Assistant  

Our next IEP meeting for LK is next week. I’ve updated her goals and objectives for Attending, Expressive Language, Receptive Language, Communication, and Self-help. I still need to update Play and Social Skills, Behavior, and Parent Training. I’ve blocked off time this Friday to make sure I get those domains updated.  

From: You  
To:  
Message:  

From: You  
To:  
Message:  

From: You  
To:  
Message:  

From: You  
To:  
Message:  

52
From: Molly Ringwald - Admin Assistant

To: You

Jack over in Accounting just sent back some travel reimbursement forms that were not completed accurately. I already emailed the staff that needed to resubmit them. I guess they didn’t notice the new form had required more information than the last one. I don’t know why Accounting changed it, the new form is so confusing. Maybe you could convince them to switch back to the old form?

If anyone has contacted you about not getting reimbursed then tell them to check their inbox for the email I just sent them.

From: You
To:
Message:

From: You
To:
Message:

From: You
To:
Message:
To: You  
From: Helen Hunt - Clinical Assistant

I’m sure you’ve noticed the lazy performance this week from Ralph, Mia, and Alyssa. Each one of them is running half the number of drills they usually do. Probably just slacking off because of winter break next week. The three of them have all been complaining about the tablet software since the most recent update, but if anything, the update should be making the tablets run better! There’s a couple extra steps to recording data but it really streamlined how you could queue up drills at the beginning of the session from different domains. If they spent more time working and less time complaining then we wouldn’t be having this problem.

From: You  
To:  
Message:  

From: You  
To:  
Message:  

From: You  
To:  
Message:  

From: You  
To:  
Message:
To: You
From: Brooke Shields - Billing

Could you do me a favor and talk with Judd Nelson? He keeps submitting appointments with your clients that have so many errors it’s taking me twice as long to bill them. I’m not sure he understands the requirements of their insurance providers. I’ve already told him about the differences between Kaiser and Aetna Insurance clients but he keeps making the same mistakes. I never have to correct your appointments so maybe he’ll listen better to someone on the clinical side of things.
To: You  
From: Jennifer Beals - BT

Just got finished with my in-home session with AB. I was only able to get through 5 drills today because his older brother was home sick and kept interrupting the session. I would tell him “We’re busy trying to learn right now, don’t interrupt” and then he would just get mad and leave for a little bit before coming back. So frustrating! He’s got a nasty cold so he’ll probably be home the rest of the week so I wouldn’t expect much data from the next two sessions I have there.

To: You  
From: Daniel Baldwin - Parent

I don’t know what got into her today, but Jennifer was extremely rude to Alec’s brother Stephen. She’s usually so good with Alec but she made Stephen very upset. Stephen just wanted to help during the session. I didn’t know what to say so I didn’t talk to her about it, could you please make sure this doesn’t happen again.
To: All Clinical Supervisors  
From: Winona Ryder - Site Coordinator  

See below, this needs to be dealt with. We need these BTs to finish the training.

Begin Forwarded message:
To: Winona Ryder - Site Coordinator  
From: Tracey Gold - Staff Development

The new HIPAA training was released a month ago and the deadline for completing it was yesterday. There are still several BTs that haven’t finished it yet. I’ve got a list of their names here: Ralph Macchio, Kirk Cameron, Mia Sara, Corey Feldman, and Keith Richards.
To: Ally Sheedy - Clinical Supervisor
From: You

Have you ever had a Lead BT that just didn’t seem to know how to make good stimuli? I’ve got one now that keeps bringing me blurry low resolution pictures or they just don’t match the descriptions I give her. I know I’m pretty precise with my directions and I’ve told her exactly “Be more careful about the images you select!” and yet at least half of what she brings me I have to tell her to redo. Do have any advice or suggestions?
To: You
From: Tim Allen - Parent

How am I supposed to know if I’m doing this right? It feels like things are only getting worse. I know I’m not supposed to give Jason any attention when he’s having a tantrum but I feel like he is just having more and more of them. He might be talking more, but the tantrums are near unbearable. I’ve attached the graphs you told me to use for data collection. There’s got to be a better way.

Attachment 1
Attachment 2
To: You
From: Diane Lane - Clinical Supervisor

I overheard Mia Sara talking with a parent of one of my new clients about possibly babysitting their two kids this weekend. Turns out Mia actually lives next door to them. I know she’s working exclusively with your clients right now so I think you would be the best person to address this. This kind of dual relationship is exactly what they hear about in training so I’m not sure why she didn’t recognize it.
To: You  
From: Scott Baio - Lead BT

Just wanted to let you know that Ralph Macchio was 10 minutes late again with picking up his client this morning. He’d been doing really well the last few months since you last talked to him about being tardy. This makes the second time in just two week he’s been late picking up a client. He makes it to the center on time but he just can’t seem to get ready for his session and pick up his client fast enough.
To: You  
From: Joan Cusack - Lead BT  

This morning KW was engaging in so many behaviors I think it would have been hard for even you to keep up with her. I stepped in once to provide support and only had to coach Alyssa Milano on a few points before she was able to redirect and deescalate KW’s behavior. I’m not sure how many times Alyssa had to deescalate KW during that session, but she only needed help once before she was doing it on her own.
To: You  
From: Corey Haim - Clinical Supervisor  

Last week Jessica Beals covered a shift with one of my clients when my regular BT called out sick. I dropped in to see how things were going and noticed she wasn’t implementing the correction procedure well at all. She would go through steps 1 and 2 but completely skipped steps 3 and 4. I did my best to coach her though it but I didn’t have much time that afternoon to spend supervising. I’d guess by the end of the day she was doing the procedure correctly about half the time. I know she mostly works with your clients so you got to do something about this. Maybe you should send her back to Tracey in staff development for retraining before she works with your clients anymore.
APPENDIX C

Training Satisfaction Survey
Thank you for participating in the Performance Management Training series. The following questionnaire is meant to assess your satisfaction with the training program as well as solicit feedback for the purposes of revising and improving the training program’s content.

1. This training has helped me to become proficient in discussing and applying the concepts and principles of Organizational Behavior Management to my job role.

   Strongly Disagree – Disagree – Neither Agree or Disagree – Agree – Strongly Agree

2. The training workbook exercises were valuable to helping me understand and engage with the content of the training program.

   Strongly Disagree – Disagree – Neither Agree or Disagree – Agree – Strongly Agree

3. The active student response questions asked during the online training modules were valuable to helping me understand and engage with the content of the training program.

   Strongly Disagree – Disagree – Neither Agree or Disagree – Agree – Strongly Agree

4. The scenarios presented in the Pre and Post Training Assessment were similar to situations I have come in contact within my job role or might come into contact with in the future.

   Strongly Disagree – Disagree – Neither Agree or Disagree – Agree – Strongly Agree

5. The content of the training was easy to understand.

   Strongly Disagree – Disagree – Neither Agree or Disagree – Agree – Strongly Agree

6. The training has improved my ability to deliver effective feedback.

   Strongly Disagree – Disagree – Neither Agree or Disagree – Agree – Strongly Agree
7. The training has improved my ability to identify the antecedents and consequences responsible for prompting and maintaining the inappropriate behaviors of my subordinates.

   Strongly Disagree – Disagree – Neither Agree or Disagree – Agree – Strongly Agree

8. The training has improved my ability to effectively monitor the performance of my subordinates.

   Strongly Disagree – Disagree – Neither Agree or Disagree – Agree – Strongly Agree

9. What comments about the quality of the training or how to improve it do you have?

   ____________________________________________________________
   ____________________________________________________________
   ____________________________________________________________
   ____________________________________________________________
   ____________________________________________________________
   ____________________________________________________________
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APPENDIX D

Workbook Sample
Performance Management Training Workbook

GUIDED NOTES AND ADDITIONAL EXERCISES
Exercise 1

To begin this module, we’d like to start by asking you to identify three performance issues you’ve had in the past or recently with one of your subordinates. These could be any work-related performance problems associated with either the work they do with clients or with their fellow employees.

Performance Issue #1

Most likely cause of issue #1

Performance Issue #2

Most likely cause of issue #2

Performance Issue #3

Most likely cause of issue #3

Thank you for completing this exercise, please continue in the e-learning module.
Performance Misconceptions

The first step in applying behavioral principles to the workplace is realizing that we probably have several misconceptions about how people ____________ in the workplace. These misconceptions tend to be both cultural and artifacts of our imprecise common language. These misconceptions prevent us from engaging in behaviors that will help improve performance. Recognizing these misconceptions and avoiding them will help you to ____________ better performance management interventions and foster better relationships with your subordinates.

The first of these misconceptions is our tendency to believe someone else’s poor performance is due to some character flaw or ________________ trait. Often this is called the Fundamental Attribution Error.

You’ve probably worked with someone before that you thought just wasn’t a good employee. Maybe this person would show up late, maybe they would spend more time socializing than actually working, or maybe they would just do sub-par work.

More than likely, you think of people that engage in those behaviors as ____________, unmotivated, or having a poor work ethic. The problem with using labels and generalities like “lazy” or “unmotivated” is that they place all of the responsibility for the behavior inside the person. However, as Behavior Analysts, we know that the ________________ is the single largest factor that controls our behavior. If we generalize collections of behaviors into these labels and don’t investigate how we can alter the environment, then we aren’t going to be able to change performance.

As a supervisor, it is much easier to label employees as red flags, lazy, or unmotivated than it is to design and implement effective interventions. Doing so let’s us put all the responsibility for change on the employee instead of the environmental conditions we can control. This is a common behavior supervisors engage in, even if they are behavior analysts. Instead of ________________ poor performers, effective supervisors have to alter the antecedents and consequences under their control.
APPENDIX E

Training Example Screenshots
Performance Management Introduction

Misconception 1
Idea that poor performance is due to character flaw
   Fundamental Attribution Error

Labels place responsibility on person
   Consider the environment

Alter antecedents and consequences

Question
The tendency to believe someone else's performance is due to internal characteristics or personality traits is called the:

   Fundamental Attribution Error
   Internal Classification Error
   Deductive Generalization Error
   Deductive Reasoning Error
APPENDIX F

Module 1 Script
Welcome to the first module in the Therapeutic Pathways Leadership and Performance Management Training course.

This course is designed to give you a detailed overview of how to apply Behavior Analytic principles to the workplace. The same principles that have helped to create some of the most effective interventions for persons with Autism spectrum and other developmental disorders can be harnessed to create a motivating and engaging workplace.

Throughout this training series we will be discussing tools and strategies you can use to effectively improve performance and manage employees. Like any new behavior, implementing these tools and strategies will be hard to implement at first, but with practice using them will become second nature. The first half of this module will be discussing some common behaviors managers engage in that prevent them from using these tools and strategies effectively. The second half of this module will discuss how to effectively identify performance problems and where to best focus your performance management strategies.

The first step in applying behavioral principles to the workplace is realizing that we probably have several misconceptions about how people behave in the workplace. These misconceptions tend to be both cultural and artifacts of our imprecise common language. These misconceptions prevent us from engaging in behaviors that will help improve performance. Recognizing these misconceptions and avoiding them will help you to design better performance management interventions and foster better relationships with your subordinates.

The first of these misconceptions is our tendency to believe someone else’s poor performance is due to some character flaw or personality trait. Often this is called the Fundamental Attribution Error.
You’ve probably worked with someone before that you thought just wasn’t a good employee. Maybe this person would show up late, maybe they would spend more time socializing than actually working, or maybe they would just do sub-par work. More than likely, you think of people that engage in those behaviors as lazy, unmotivated, or having a poor work ethic. The problem with using labels and generalities like “lazy” or “unmotivated” is that they place all of the responsibility for the behavior inside the person. However, as Behavior Analysts, we know that the environment is the single largest factor that controls our behavior. If we generalize collections of behaviors into these labels and don’t investigate how we can alter the environment, then we aren’t going to be able to change performance.

As a supervisor, it is much easier to label employees as red flags, lazy, or unmotivated than it is to design and implement effective interventions. Doing so lets us put all the responsibility for change on the employee instead of the environmental conditions we can control. This is a common behavior supervisors engage in, even if they are behavior analysts. Instead of labeling poor performers, effective supervisors have to alter the antecedents and consequences under their control.

The second misconception we have about workplace performance is the idea that people should be good performers because that’s what they’re paid to do. This is very similar to the fundamental attribution error in that this appeals to some form of internal control for someone’s poor performance. In this case the internal control is some sort of moral trait or decision employees should make about working hard because it’s the “right” thing to do. This again ignores all the environmental variables that affect performance and distracts us from what we can actually change.
Every employee has a learning history that contributes greatly to how the work environment affects their behavior. Some people have been reinforced extensively for behaviors, either while growing up or in school, that generalize well to the work place; others have not. It’s our job as managers and supervisors to create an environment that can bring the best out of people, no matter what their learning history may have prepared them for.

It seems reasonable to imagine that employees should perform well since they are paid to do a job. Paying someone for doing a job poorly can generate some emotional responding. However, a closer inspection of workplace contingencies shows that employees are paid for their time, not their performance. It’s usually implied that poor performance will result in negative consequences but as we’ll discuss in a later module these consequences are too delayed to reliably control performance.

The last misconception people have about performance is that you need to change how someone thinks or feels in order to change their behavior. Programs designed to change feelings or attitudes are not reliable ways of improving performance, especially since we can’t measure feelings or attitudes reliably and we can only observe them indirectly through actual behaviors. Instead we should focus on developing a system of management that relies on positively reinforcing observable behaviors and results.

A classic example can be found in Project Follow Through, which was a federally funded educational experiment in the late 60’s and early 70’s designed to find effective teaching methods that could extend the Head Start program into elementary education. Among the 22 educational programs were familiar methods like direct instruction, behavior analysis, and precision teaching. Most of the remaining programs were based on cognitive models of instruction. Programs based on direct instruction and behavior analysis focused on developing
basic skills, where-as cognitive models emphasized the development of broad intellectual skills, self-esteem, and positive attitudes towards school.

Unsurprisingly to behavior analysts, those students enrolled in programs focused on developing basic skills not only scored better on reading, arithmetic, and language but they also had higher scores on measures of school attitude and self-esteem. Cognitive models overall failed to develop those basic skills and had lower scores for self-esteem and school attitude.

Let’s say you have a BT that doesn’t complete enough drills in a session. Trying to improve his performance by boosting morale or telling him why completing drills is important is not likely to lead to better performance. You may see some short-term gains but the performance will return to previous levels shortly thereafter. Instead, you should create consequences for desired performance. You don’t need to change someone’s thoughts and feelings in order to change behavior. It is easier to change behavior by creating better new antecedents and consequences or manipulating the current environmental antecedents and consequences for those behaviors.

Instead of changing the environment, managers that fall prey to this misconception will spend excessive amounts of time pleading or preaching to their employees about the dangers and penalties of low performance and the great benefits of high performance. Explaining why a behavior is important is however unlikely to have long impacts term on performance. For example, if you have a BT that implements proactive strategies in 20% of opportunities possible and you explain the benefits of implementing proactive strategies, you will likely see short term gains where the BT will more frequently engage in proactive strategies during sessions. This gain however will only be short lived as you haven’t changed the environment to support that behavior. If there isn’t sufficient reinforcement for engaging in proactive strategies
or if there are natural aversive contingencies to implementing them, then the behavior will return
to previous levels.

To recap, there are three misconceptions about workplace performance that managers
often make. The first two misconceptions are that performance is controlled by internal factors
and they ignore the impact the environment has on performance. If you believe someone has
some internal trait that makes them a poor performer, then you have likely committed the
Fundamental Attribution Error. If you believe someone should perform well just because they
“should”, then you’ll never find the environmental factors that will help them perform well. The
last misconception is that you should change an employee’s thoughts or feelings to change their
performance. This will lead you to only providing antecedent pleas and exhortations to improve
performance. As behavior analysts, we know that consequences are the only thing that reliably
change or maintain performance. Pleas, explanations, or warnings will only net short term gains
at best.

When we discussed the Fundamental Attribution Error we referred to the tendency to
create generalizations or labels for performance. Common generalizations and labels for poor
performance would include lazy, unprofessional, or unmotivated. We can also create
generalizations and labels for desired performance such as hardworking, good teamwork, or
creative. These labels always imply behaviors or results you could observe, but since they don’t
specify or define those behaviors they aren’t helpful in monitoring performance or designing
effective interventions.

To make effective interventions that will improve performance we need to stop labeling
or generalizing performance and start pinpointing desired behaviors and results. You can’t
deliver effective feedback, set goals, or provide reinforcement if you can’t identify the desired
behaviors or results. Similarly, your employees can’t change their behavior if they don’t have specific pinpoints to compare their performance to.

If you tell a BT they need to be more creative with their clients, they aren’t going to know what you mean and they won’t be able to change their performance. Nor should they! You’ve just given them a general label for a collection of any number of behaviors. Do you want them to start using more proactive strategies with clients? Do you want them to use more varied reinforcers? Are their transitions too similar or repetitive? Pinpointing the specific results or behaviors you want, instead of vague generalities or labels, is one of the most essential components to improving performance.

If you want to improve performance, then you have to start with pinpointing the results that you need to achieve. If you start by pinpointing behaviors, then you might not actually create pinpoints that will affect business critical results. Once you pinpoint results, then you can begin to pinpoint behaviors that lead to those important results. Remember to always pinpoint results first, then pinpoint behaviors that lead to those results.

To create an effective pinpoint, you need to make sure it meets three different criteria. Pinpoints should be measurable, observable, and reliable. If you can’t quantify it with a number, see it happen, or see the product of what happened then you don’t have a good pinpoint. To test for reliability, you will have to give your pinpoint to multiple observers and see if their observations match. If separate observers don’t arrive at the same conclusion using the pinpoint, then you need to make it more specific.

Let’s look at some examples and non-examples of pinpoints. “BT will work diligently to ensure client protocols are followed” is a non-example because it does not indicate how to quantify a specific behavior, “working diligently” is a generality and should be made more
specific. “BT will implement time-out procedure within 5 seconds of client aggression” is an example since it describes a specific behavior and gives a criterion for quantifying it.

“PA will monitor BT performance weekly” is a non-example since it does not describe a specific measurable behavior, monitor is a label for several different behaviors. Monitoring could involve direct observation, reviewing session data, or individual meetings. “PA will conduct 30 minutes of observation during DTT with BT weekly, using structured observation data sheet” is more specific and gives a method for measuring the behavior either by counting the time spent observing or looking at completed data sheets.

An example results pinpoint might look like the following: “Client stations will be organized and clean at the end of each session.” This is just an OK example of a pinpoint since there are several different ways to measure if a station is organized or clean. Even though it is physically observable, this pinpoint isn’t going to be very reliable.

The best way to make a pinpoint more reliable is to be more specific about how you’ll measure it. A reliable pinpoint would look more like the following: “Client stations will be organized and clean at the end of each session with all stimuli sanitized and in appropriate bags and drawers, no open food containers, and any toys or reinforcers stored in their appropriate station or center location.”

Effective pinpoints are measurable, observable, and reliable. Make sure you can quantify and observe those behaviors or results happen. Have other people read your pinpoint and see if they agree with what that performance would look like or actually have them observe and score performance with that definition to see if there is agreement.

You don’t want to stop with just pinpointing and measuring results. The behaviors that someone needs to engage in to achieve those results should also be pinpointed and managed. If
you only manage results then you might have some performers engaging in unethical, illegal, or
dangerous behaviors to achieve those results.

For example, if you only manage whether a certain number of drills are run each session
you might have some performers that create fake data, run only the easy or quick drills, or skip
steps in correction or prompting procedures to get more done. To avoid these types of behaviors
you should also pinpoint and manage behaviors that can lead to more drills being run per session
or that will compete with those undesirable behaviors (DRI).
You might pinpoint the number of proactive strategies correctly implemented per opportunity,
the latency between when a drill is completed and the next one is started, the therapeutic quality
of transitions, or quality of reinforcement provided per opportunity. Pinpoints in any of those
areas could be integrated into how you manage your BTs.

It is easier to manage by results since you can just look at the outcomes of behavior
without having to be present when the behaviors occur. However, without pinpointing and
managing behaviors you leave the environment to shape which behaviors employees will engage
in to achieve those results.

As we previously discussed it can be easier in many instances to manage by results.
There are several scenarios however when it would be more appropriate to monitor either
behaviors or results. The following slides will outline eight different suggestions, these
suggestions are meant to help you determine which areas are better suited to behavioral or results
based interventions. These interventions could include components such as feedback, goal
setting, training, and various other strategies that will be discussed in later modules.

Focus on managing and reinforcing behaviors when someone’s current performance is a
long way from goal performance. If you have a new or poor performer you should pinpoint
specific behaviors to engage in that will improve their performance. If it is a particularly complicated behavior you will need to shape their performance gradually with some intermediate pinpoints.

If your performers are skilled in the behavior, then you can focus on the results instead. Skilled performers should require less coaching and feedback on specific behaviors and can therefore be given feedback or consequences on the results obtained by those behaviors.

If you are supervising a newly appointed PA then you would probably want to create behavioral pinpoints for how they do complex tasks such as updating treatment plans. You would identify the core behaviors or skills necessary to successfully update treatment plans then provide feedback, set goals, or provide reinforcement based on those behaviors. However, with your seasoned PAs you could manage them based on results since they should already be able to update treatment plans effectively. In that case, you could create a results pinpoint such as % of plans updated within a time period.

If the link between the behavior and the result it produces is not obvious you should also focus on behaviors. It’s easy to see that when you press on the brake pedal in a car (Bx) the car slows or stops (Result). In this situation, the link between behavior and result is clear. There are many circumstances where behaviors don’t have clear links to their results. BTs may have a successful session without pre-session preparation, clients may achieve target mastery without BTs strictly adhering to protocols, and someone may not have an accident even when they don’t follow safety procedures. Eventually these behaviors will have an adverse effect on results and should be pinpointed and managed.

If behaviors and results are obviously related, then you can focus on the results instead. If someone does Behavior A and Result B always occurs soon after, then providing feedback or
consequences based on the results can generate higher performance. Just remember what is obvious to you, may not be obvious to the performer. Provide task clarification in the beginning so that performers know the link between their behavior and the desired results, then start measuring results and reinforcing and giving feedback. For instance, if you’ve been having trouble with BTs completing food logs for clients, then you could develop a results focused feedback or goal setting intervention to improve that performance. In that situation, the behavior of filling out the food log is directly linked to the result of having a completed food log.

If the result of a behavior is long delayed, then you should focus management and reinforcement on behaviors. Imagine how long, if at all, clients would take to master skills if we didn’t provide reinforcement for their individual correct responses and just reinforced them when they reached mastery criterion. The same principle applies to any long-term project or delayed outcome. You should reinforce intermediate behaviors that will lead to the desired result(s).

Let’s say you’re a clinical supervisor and you’ve made a pinpoint for your clinical assistants about the results of their treatment plan updates. You would probably have more success pinpointing the behaviors that can achieve that results pinpoint. Then you could provide more frequent feedback, reinforcement, and other consequences instead of only being able to do those things once with either a positive or negative treatment plan update result. It’s easier to generate high performance with frequent consequences for intermediate behaviors than infrequent consequences for long term results.

When the relevant behaviors are socially sensitive, you should focus on behaviors instead of results. For problems that are impacting results that deal with inappropriate appearance, grammar or language, body odor, or other socially sensitive topics you should also focus on the behaviors rather than the results. While it is often socially awkward to give feedback on these
behaviors, a performer can’t change a problem behavior if they don’t know it’s a problem. Pinpoint the specific behaviors that are impacting the results and then focus any feedback or consequences on the appropriate behaviors.

Let’s say you have a client that engages in problem behavior by pulling on ear rings and other jewelry. If you have BTs that frequently wear jewelry while working with this client (assume they are compliant with the dress code) then the client will likely have higher rates of problem behavior and will in turn probably have lower number of drills completed and targets mastered. In this situation, you should be focusing any PM interventions on the behavior of wearing jewelry instead of the results of drills mastered or frequency of problem behavior. Likely you’d implement some sort of task clarification or feedback for that behavior.

The most effective interventions would be individual feedback to each person on the # of times they engaged in off topic conversation and group feedback on the amount of time spent engaged in off-topic conversations. Since the behavior is socially sensitive you need to be explicit and target that behavior. Targeting the desired result of shorter meetings like in the interventions of C and D are unlikely to reduce off-topic conversations. Instead other behaviors such as avoiding discussing relevant issues, leaving out details to relevant conversation, or simply not participating in discussion will probably occur so they can get that result of shorter meetings.

If poor results are not under the control of the performer then you should focus on behavior. The typical example of this is sales in any industry. If a sales rep is only reinforced rewarded for the quantity or $ value of their sales (results) then it is unlikely that anything other than chance or luck will influence performance. Factors beyond the sales rep’s behaviors will influence their success such as the time of the year (retail is much bigger in Q4 than in Q1) or
their physical appearance (attractive people usually have more success). Higher performance can be achieved by creating interventions that target those specific behaviors that increase the likelihood of a successful sale.

If as a clinician, you were only paid for the number of targets your clients mastered or the skills they learned in a given time period, you probably wouldn’t find that system reasonable. There are many things outside of your control that will affect how many targets or skills a client learns. Instead it would be better to pinpoint and reinforce the behaviors that are most likely to lead to clients learning more skills. You would be more likely to see improvements in performance if you were managed based on those behaviors than if you were only managed based on the results.

If results are improving, then you can generally stay focused on managing those results. If the results are improving, then it usually means that your performers are engaging in the correct behaviors. You should first verify their behaviors are occurring reliably but then you can focus your management strategies on feedback and reinforcement for the results.

Whether you are focusing on behaviors or results remember the key word is “Focus” not “Ignore”. If you completely ignore either results or behaviors, you can expect trouble in the long run. You might be achieving good results despite undesirable or unsafe behaviors or you may be getting all the right behaviors while still not achieving optimal results.

Let’s recap some of the main points from this unit.

Don’t get caught up in the fundamental attribution error or other performance misconceptions! If you put a good performer in a bad system, the bad system will win every time. In other words, stop asking WHY people engage in problematic behaviors and start asking WHAT happens to them when they engage in those behaviors. When we start focusing on the
environment, instead of looking for internal sources of control, we are more likely to design interventions that can influence performance.

We have to design an environment that brings out the best in people. That starts with clarifying expectations and ensuring people know “how” to perform and it’s maintained by creating systems of measurement and reinforcement.

In the next module, we’ll be discussing all the different ways you can measure behavior and results pinpoints. Combining specific pinpoints with measurement is essential to creating effective Performance Management interventions.
APPENDIX G

Module 2 Script
In the last module, we discussed how changing the environment was the most effective way to increase performance. In order to change the environment, we have to be able to effectively pinpoint specific results or behaviors necessary to achieve high performance. Once we’ve identified critical behaviors and results we have to establish a system of measurement. Without measurement, we can’t develop effective interventions and we can’t monitor the effects our interventions have.

This module will present the four categories of measurement you can use to effectively monitor behaviors and results.

Quality can be measured along three dimensions. The first is Accuracy. Accuracy is the degree to which a performance or result conforms to a standard or established criteria. The score you receive on an exam is an accuracy measure and can be expressed as a letter grade, pass or fail, or as simply a percentage of total points possible. The mastery criterion set for clients is another example of an accuracy measure.

Typically, people look for errors when measuring quality, which can be good data to have. However, once you know what the errors are, you should convert them into positive accuracy measures. One example could be that you notice a BT is not using the correct second delay, so instead of measuring the percentage of drills delivered with errors, measure the percentage of drills delivered with the right second delay. If you wanted to develop an accuracy measure for SD presentation for a feedback and training intervention with a particular BT then you could record the percentage of drills where the SD was presented as outlined in the protocol.

Class is another dimension of quality. This is a judgement measure of quality that looks at the comparative superiority of a particular performance beyond accuracy. If you’ve ever
watched the Olympics, then you should be familiar with Class based ratings. Events in gymnastics, figure skating, or diving are judged using Class measures. A gymnast might execute the same flips, somersaults, and aerials as another competitor but receive an entirely different score. Even if each individual trick is executed perfectly by both competitors they could receive very different scores. The difference in scores is due to judgement, based on the expert’s opinion.

If you are going to use a subjective judgement measure like Class, then you will need to be very careful in how you arrive at your final judgement. When developing Class measures, it is best to use criteria based rating systems like a Behaviorally Anchored Rating Scale (BARS), which we will be discussing near the end of this module. Class measures are best used if you are interested in the way someone does something, which is often referred to as form, style, or technique. While two BTs may run a session accurately, following all protocols, one BT may conduct a session that is superior because of the particular nuances or styles of their performance. Similarly, two different Treatment Plans may be accurate in the information they contain but one may be comparatively superior because of the formatting or linguistic style.

Remember the accuracy measure from earlier where we could look at the percentage of drills where the SD was presented according to the protocol? You could also create a Class measure for the same behavior. You could make a rating scale (preferably BARS) for SD presentation that judged how well they were prompting responses, laying out the stimuli, the pitch or intonation of their voice, or any other pertinent aspect of SD presentation.

The last dimension of Quality is Novelty. This is another judgement measure of quality that looks at the unique or unusual combinations, traits, or variations of a performance. Again, the best way to judge the novelty of some behavior or result is to develop a criterion based rating system like BARS.
You could use a novelty measure to look at how BTs are providing reinforcement, conducting transitions, or keeping clients on-task. You could also have novelty measures for the design of different goal plans or drills. The important thing to remember with novelty measures is that you don’t want novelty for novelty’s sake, it should be measured only for the impact it can have on some outcome.

Let’s look at the previous example of SD presentation again. We know that we can make both Accuracy and Class measures for the related behaviors. We can also make a Novelty measure rating the subjective quality of how prompts are presented. Maybe the BT is only saying “Touch ___” when they could be using several prompts like “Where is”, “Show me” or any other relevant prompt. You could give them a rating based on the number of unique prompts used during the session. Again, novelty is only important if it can have an impact on some important outcome. Maybe you want to vary the prompts so the client is more likely to generalize that response in more environments. Maybe it is early in the acquisition of the skill, so you don’t want the prompts to vary so the client can acquire the response faster.

Quantity is measurement through counting. Counting can be presented as either Frequency or Rate. Simple frequency measures look at the number of times something occurs, while rate looks at frequency over some unit of time.

An example of a frequency measure could be the total number of drills presented to a client. Another could be the number of learning opportunities presented in transitions. A rate measure could be the number of drills presented to a client in an hour. Another could be the number of feedback statements you deliver per day.

One caveat to remember when deciding on measurements for your pinpoints is that reinforcement is very powerful. If you are only providing Reinforcement for quantity you might
lose performance in quality. “You get what you pay for” isn’t just a saying, if quality is important make sure you include some reinforcement and measures in that category otherwise all you’ll get is quantity.

Timeliness is measured in terms of meeting a deadline or in the total time to complete or start a task (latency measures). If you’re a senior supervisor, then you might be interested in measuring how quickly a report gets submitted to funding agencies. If you’re a mid-level supervisor you might want to measure how quickly your Leads finish a particular task. Whenever you develop timeliness measures you should again remember that reinforcement is very powerful. If quality is important then you need to have some measures and consequences for quality work. If you only manage quantity and timeliness, then quality will eventually suffer.

For example, if you only provide feedback or reinforcement for how quickly your Leads make stimuli or how fast they respond to behavior support requests then the quality of stimuli or their behavior support might decrease over time.

Cost can be measured along three dimensions: Labor, Materials, and Management. Usually cost related measures are best set in upper management as long term results measures, so at the Site-Coordinator or Assistant Site-Coordinator level. You can then find specific behavior pinpoints as measured in quality, quantity, or timeliness that will help you achieve your long-term cost results.

Labor is the traditional measure of Cost in performance management. Labor costs include wages, salaries, and benefits and are usually measured within an HR department or at senior levels. Mileage would also fall under this category. You might set a result pinpoint for reducing the ratio of mileage to delivered therapy hours, then create some behavioral pinpoints for scheduling behaviors that could improve that same ratio of mileage to delivered hours.
More relevant to mid-level and frontline managers are Materials costs. How your BTs and Leads make use of the resources available may be relevant to performance management pinpoints. Some Cost related pinpoints you might set with a Materials measure could be around reducing the amount of laminate wasted while making stimuli or the amount of food or edibles that are thrown away per month. You could also look at measuring the cost of producing stimuli as a function of both material and labor costs.

The last cost measure is management. Management costs are the expense of providing non-material support to produce a desired result or product. IT, clerical, training, or supervisory costs fall under this category. Measurement in this category is best set at senior levels and is usually in long term results. Again, since long term results are delayed you should be looking at intermediate results or behavior pinpoints that drive performance to that long-term goal.

You won’t want to use the same category of measurement for all of the different pinpoints you need to measure. To help decide which category is best you can start with three questions.

If performance varied for this measure, would it matter?

For example, the number of drills a client receives in a session could be important so you might make some quantity measures to ensure performance doesn’t vary. However, it might not matter whether BTs are presenting the SD for those drills in novel ways, if they follow the protocol. In that case creating a scale that rates the number of novel SD presentations would be a waste of time.

Does performance actually vary on this measure?

Again, you might look at the number of drills a client receives per session by reviewing the past 10 sessions data. Before spending time creating some large feedback and reinforcement
intervention for the number of drills your BTs deliver you should determine if performance is varying on that dimension.

Does performance vary enough to be concerning?

With our previous example of number of drills delivered per session, let’s say you found that performance varied between 10 and 12 drills per session. You should determine whether that range is appropriate before spending time creating an intervention to limit the variation you’re seeing.

If you answer yes to all three of these questions, then you should use that performance measure.

If you’ve decided on using a Judgement based measure like class or novelty, then you will need to decide on a good system to help make those subjective decisions become a bit more objective. A common problem when it comes to performance evaluations and management is that the manager and employee don’t always agree on how performance was evaluated. Usually this is because expectations aren’t communicated in advance or there is no set scale to rate performance against, so managers evaluate based on personal beliefs and preferences.

You could rate or rank performance based on opinion or criteria. You should avoid opinions completely and stick to pre-established criteria. Ranking should also be avoided because it can create competition among performers. Pitting performers against each other, especially when using rewards or recognition can create an unfriendly workplace. Instead make reinforcement available to all performers by using a criterion based rating scale like BARS.

Here is an example of a Behaviorally Anchored Rating Scale you could use to rate the quality of a transition. You would score performance on a scale of 1 to 5 depending on whether the performance matched the relevant behavioral descriptions.
The lowest score of 1 would be given for a transition with low therapeutic quality. 1 – Walks with client from station to play activity; does not gain client attention, play games, or present learning opportunities; does not redirect behaviors

The other numbers on the scale correspond to better and better descriptions of the performance 2 – Walks with client from station to play activity; presents no learning opportunities, may play games but has monotone or unengaging tone; does not redirect behaviors.

3- Walks with client from station to play activity, using varied learning opportunities, somewhat engaging tone and plays games, ineffective behavior redirection

4- Walks with client from station to play activity; multiple and varied learning opportunities, highly engaging tone and games, effective redirection of behaviors

The final number on the scale should correspond to a perfect description of performance.

5 – Walks with client from station to play activity; multiple and varied learning opportunities, highly engaging tone and games, uses proactive strategies

The scales you choose to use can vary, the more specific the performance can be the more finely tuned you can be with your scale (1-10). If it is a general scale, make it smaller (1-3). The important part of BARS is that it helps you judge more objectively and can help clarify expectations between you and the performers you’re rating.

The final component of measurement and pinpointing we’ll talk about is how to use checklists.

Once you’ve established pinpoints and decided how you want to measure them you need to establish a system for monitoring those pinpoints. Results are easy to monitor because you can
simply look at the outputs of performance. With behaviors, you must create methods to observe and sample performance. Checklists are a great way to monitor performance.

Effective checklists follow these rules:

Keep it short so it fits on one page (10 items or less is a good rule) – if the checklist is too long or hard to use then people won’t use it!

Use simple and objective language – all the items should be the behaviors you’ve pinpointed and an untrained observer should be able to read them and know exactly how to score performance. If two people watch the same performance and the scores from their checklists differ, then you need to change the language to make it more objective.

Easy to read font and formatting – don’t use tiny font or distracting graphics and colors. If it is hard to read and use, then people won’t use it.

Include room for notes and prompts for discussion between the observer and observed – If you are monitoring performance then you should have time at the end to provide feedback and reinforcement. You want to improve the observation process, so encourage observers to make notes on what went well, what didn’t, and any suggestions to improve your checklist.

Remember that monitoring performance is a behavior and like all behaviors it needs to be reinforced if we want to see it increase or maintain.

Let’s recap the major points of this module.

To create good systems of measurement and reinforcement we have to start getting specific about the results and behaviors we need. Pinpoint the critical results first and then pinpoint the behaviors that are going to get you those results. Establish relevant quality, quantity, timeliness, or cost measures for those critical pinpoints and start measuring. Stay objective and avoid ranking your employees, since it limits how many people can be reinforced. Rating
systems let you reinforce anyone and everyone who meets your criteria. Once you start measuring performance be sure to reinforce measurement behaviors to keep the system going.
APPENDIX H

Module 3 Script
This module in the Performance Management training series is all about defining performance problems. As behavior analysts, we are very familiar with the ABC model of behavior. We know that behaviors are preceded by antecedents and are followed by consequences that either increase or decrease the probability of that behavior occurring in the future. The ABC model becomes more complex as we introduce motivating operations, which increase or decrease the value of behavioral consequences.

The goal of this module is to introduce you to the tools and strategies needed to correctly identify why performance problems are occurring and which solutions can best solve them.

In the most simplistic terms there are only two kinds of performance problems.

Can’t do and Won’t do

The key distinction between these two types of problems is the type of intervention required to fix them.

Can’t do problems occur when a performer does not have the required skills, knowledge, or abilities to perform a task. For example, a general practitioner might lack the ability to diagnose certain disorders so they might refer you to a specialist. Similarly, a BT may not know how or have the skills to effectively deescalate a new client’s problem behavior.

Can’t do problems require an antecedent based intervention. Common antecedent interventions include task clarification, job aids, prompts, pep-talks or meetings, and training.

Won’t do problems occur for several reasons including a lack of motivation, natural environmental punishers, or ineffective consequences. For example, if you’ve ever seen someone touch a wall that had a “wet paint – don’t touch” sign on it, that’s a won’t do problem. Assuming they can read, that person’s behavior of touching the wall is a won’t do problem. The environmental punishers are not strong enough to discourage the behavior and the consequences
for appropriate behavior are basically non-existent. Similarly, a parent might not follow an agreed upon treatment protocol because there are not effective consequences to either encourage appropriate behavior of following the protocol or discourage inappropriate behavior of not following the protocol.

Won’t do problems require consequence based interventions. Consequences can vary widely but at their core either rely on reinforcement or punishment contingencies. All too commonly the consequences we choose to use are punishment and penalty contingencies. These contingencies can have several adverse effects on the work environment and should only be used as a last resort or in the case of illegal or unsafe behaviors. A workplace that is predominately made up of punishers can result in low morale, high turnover, and aggressive or retaliatory behaviors.

If a performer has all the prerequisite knowledge, ability, and skills to perform a task, but still performs below expectations, what type of performance problem is occurring?

This is a won’t do performance problem and requires some sort of consequence based intervention. As we will be discussing throughout the rest of this module, identifying the type of performance problem and the required intervention can be difficult, but is essential to effective Performance Management.

The rest of this module will be used to discuss three different tools you can use to help diagnose performance problems. Determining whether an issue with performance is a Can’t do problem, a Won’t do problem, or some combination of the two is a complex process.

Can’t do and Won’t do performance problems are not mutually exclusive. It is possible that a performer might lack the knowledge or skills necessary to complete a task while also
having consequences in place that support inappropriate behavior that inhibits them from completing that task.

The tools we’ll discuss in the remainder of this module are meant to give you heuristics or systematic methods to identify the environmental antecedents and consequences that are currently supporting desired or undesired behavior.

There are several tools you can use to determine the causes of poor performance. The first tool you can use in diagnosing performance problems is called the PIC/NIC analysis.

This analysis is used to determine the antecedents that are most likely prompting behavior and the types of consequences that are currently controlling performance. This analysis can help us avoid asking the wrong questions and falling into the fundamental attribution error when talking about performance problems. The usual question people ask when someone isn’t performing well or does something inappropriate is “Why did they do that?” To reliably change behavior, you need to ask “What happens to them when they do that?” Consequences are the only stimuli that reliably maintain, increase, or decrease behaviors.

The name of PIC/NIC Analysis comes from the relations between behavior and its consequences.

The first of which is their effect on behavior; that is consequences can either be positive or negative (P/N), either increasing/maintaining or decreasing behavior. The higher the value of the consequence the more likely it is to control behavior. For example, for the behavior of “skipping steps in cleaning up a treatment station,” the positive consequence (P) “being able to leave 5 minutes early” will not exert as much control on a behavior as the negative consequence (N) “being fired”.

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The second relation is time, consequences are either immediate or in the future (I/F). Immediate consequences tend to exert more control than delayed or future consequences. Praise immediately following a behavior is more effective than receiving that praise two weeks later.

The third relation is probability, consequences are either certain or uncertain (C/U). High probability consequences tend to exert more control than low probability consequences. Like with the two possible outcomes of the behavior of putting money into a vending machine will either produce the result of receiving an item or not. It is much more likely the machine will produce the item rather than eating your money. If we go back to the example of skipping steps in cleaning up a treatment station, we might see that “being able to leave 5 minutes early” is a definite certainty while “being fired” is nearly impossible. In this situation, the positive consequence of leaving early is more likely to control behavior even though it has less value than “being fired”.

From these relations, we can then judge how effective the consequences will be at controlling behavior.

A positive, immediate, and certain (PIC) consequence is more likely to control behavior than a positive, future, uncertain (PFU) consequence if they have the same reinforcing value. A negative, immediate, and uncertain (NIU) consequence might not control behavior as well as a negative, future, and certain (NFC) consequence. How well consequences control behavior depends on the interaction of these three relationships and the performer receiving them. Performers will value consequences differently and will have different judgements about whether they are likely to occur.

The key to conducting this analysis is to remember that you need to take the perspective of the performer! How you perceive consequences doesn’t matter, it’s how the performer
perceives and is affected by those consequences. This is where the analysis becomes more art than science. It’s impossible to know for certain how any given performer will perceive all consequences (P/N, I/F, C/U). You may think some consequence is punishing and certain to happen, but the performer doesn’t find it punishing and thinks it unlikely to happen.

If someone’s behavior is consistently being “punished” but the behavior continues to happen, then either you don’t actually have a punisher, or there are some reinforcers that have a higher value, are more immediate, or are more certain to occur than the punishment. For example, if a teacher is frequently reprimanding a student’s behavior of talking out of turn, yet the student continues to talk out of turn, either the reprimands are not an effective punisher or it is not as effective as the reinforcement being received for talking.

Similarly, if you are trying to “reinforce” a behavior but the behavior isn’t occurring at the desired level, then either you don’t actually have a reinforcer, or there are some aversive consequences with a higher value, more immediacy, or a higher probability than the reinforcement. For example, if you are reinforcing a student’s behavior of participating in class discussion, but they are still not participating at desired levels then you either don’t have an effective reinforcer or there are more aversive consequences in the classroom that are lowering the rate of the response.

Let’s use the PIC/NIC analysis to diagnose a behavior that you might be familiar with, smoking cigarettes.

The first step in the analysis is to pinpoint the undesired behavior and the desired or replacement behavior.

A lot of performance problems get worded as non-behaviors or non-specific pinpoints which can be problematic for analysis and intervention design, so remember to always create
specific behavior or results pinpoints. In this case, if the undesired behavior is smoking, we’ll say our pinpoint is smoking a pack of cigarettes in a day. The desired behavior is a bit trickier to identify in this case because “not smoking” isn’t a specific behavior. For simplicity sake, in this example we’ll say the desired behavior is “choosing not to smoke” with a pinpoint of smoking zero cigarettes in a day.

Remember that this analysis is done from the perspective of the performer or in this case a smoker, so all the antecedents and consequences we’ll be discussing in the next few slides are from their perspective. Also remember that stimuli can serve multiple functions, such that some stimuli might be antecedents, motivating operations, or consequences for the same behavior or other behaviors.

The next step in a PIC/NIC analysis is identifying the possible antecedents for both desired and undesired behavior. First, we’ll look at some of the antecedents or setting events that prompt the desired behavior of choosing not to smoke.

“No smoking” signs, being inside a smoking restricted building (restaurant, airport, etc), being around non-smokers.

Then we’ll identify what kind of antecedents or setting events that prompt the undesired behavior of smoking.

Being around smokers, drinking alcohol, driving, feelings of nicotine withdrawal, feelings of stress, just finishing a meal, sight of cigarettes or lighter.

Based on the antecedents you find for both the desired and undesired behavior, you can then design interventions or strategies to strengthen antecedents for desired behavior and weaken antecedents for undesired behavior.
In this case, you might decide to place “no smoking” signs or reminders not to smoke in the smoker’s car or home. You could use a nicotine supplement to avoid nicotine withdrawal. You might implement other stress reducing strategies to replace smoking. You might limit the amount of time the smoker spends with other smokers or increase the time they spend with non-smokers.

The next step in the PIC/NIC analysis is identifying the possible consequences for both desired and undesired behavior. For each consequence, you will need to identify the three relationships it has for the performer: Positive or Negative, Immediate or Future, and Certain or Uncertain.

Let’s start with the consequences for undesired behavior, smoking.

Nicotine buzz – Positive, Immediate, Certain (PIC)

Feeling calm or temporary reduction in stress – Positive, Immediate, Certain (PIC)

Fun with smoker friends – Positive, Immediate, Uncertain (PIU)

Cancer – Negative, Future, Uncertain (NFU)

Emphysema – Negative, Future, Uncertain (NFU)

Disapproval from non-smokers – Negative, Immediate, Uncertain (NIU)

Then we’ll look at the consequences for desired behavior, choosing not to smoke.

Feelings of stress – Negative, Immediate, Certain (NIC)

Nicotine withdrawal – Negative, Immediate, Certain (NIC)

No Cancer – Positive, Future, Uncertain (PFU)

No Emphysema – Positive, Future, Uncertain (PFU)

Less fun with smoker friends – Negative, Immediate, Uncertain (NIU)

Approval from non-smokers – Positive, Future, Uncertain (PFU)
Based on these consequences it’s easy to see why smokers continue to smoke or avoid quitting. There are many PICs for smoking and several NICs for choosing not to smoke. Most of the negative consequences for smoking are in the future and uncertain to occur and the positive consequences for choosing not to smoke are also delayed and uncertain. Any intervention to reduce smoking will need to change this balance of consequences to be successful.

Notice how there are both antecedent and consequence based solutions to this problem? It’s up to you to determine if either type of solution is more likely to succeed. The PIC/NIC Analysis is simply a systematic approach to identifying the antecedents and consequences for both desired and undesired behavior. Ultimately, you’ll have to use your judgement when deciding to use either an antecedent or consequence based approach to changing performance.

The performance problem could require using a combination of the two intervention types such as task clarification with feedback and praise for desired performance.

Now let’s diagnose a workplace performance problem you may be familiar with using the PIC/NIC analysis. Suppose you have a BT that doesn’t accurately follow the correction procedure or other client protocols.

The first step is to pinpoint the desired and undesired behavior or results. Let’s say the undesired behavior is skipping steps in the correction procedure so our pinpoint could be, implementing the correction procedure with less than 60% accuracy. Now our desired behavior is correctly implementing the correction procedures and let’s say our pinpoint is implementing the correction procedure accurately for 90% of opportunities.

The next step in the analysis is to identify the antecedents or setting events to following the correction procedure (desired behavior).
Client makes an error; prompts from supervisor; supervisor present; directions in client folder visible; skill level of BT.

Next identify antecedents or setting events to skipping steps in the correction procedure (undesired behavior).

Client makes an error; supervisor not present; no directions in client folder or directions not visible; skill level of BT.

Once you’ve identified the majority of antecedents for both the correct and problem behaviors you can identify ways of making those antecedents more effective or creating new antecedents that will more effectively prompt correct behavior or discourage incorrect behavior. Can the BT reliably tell when the client has erred? Can we design prompts for when the supervisor isn’t present? Can we simplify the protocol if the BT is lacking skills or provide training/coaching? Can we make the client folder easier to access or the protocols inside easier to see in other places?

Next you will identify consequences for performing the desired behavior of implementing the correction procedure and whether they are P/N, I/F, and C/U. Remember this is from the performer’s perspective.

You’ll need to take your best guess for what relations the consequences for implementing the correction procedure have for the performer. More than likely receiving positive feedback from a supervisor will be positive, it could happen in the future or sometimes be immediate, and they might perceive it as either likely or unlikely to happen. The point is to use your best judgement so that once you’ve identified all the possible consequences you can find which ones to strengthen or weaken to increase desired behavior.
Next identify consequences that may result from the problem behavior of skipping steps in the correction behavior. Just like with the consequences for desired behavior you are taking your best guess as to what relations those consequences have for the performer. In reality some may not actually be consequences or the performer may think they have a different probability of occurring than you. You want to use your best judgement so you can find which consequences to strengthen or weaken to decrease the problem behavior.

Once you’ve exhausted the possible consequences for desired and problem behavior you should have a better idea for why the correct behavior is not occurring or why the problem behavior is occurring. Make sure that you’ve taken the perspective of the performer! For this performer maybe receiving a reprimand or negative feedback may not be much of a negative consequence or they may perceive them to be highly improbable. If you’re finding more PICs for undesirable behavior and NICs for desirable behavior, you’ll need to design some new contingencies.

Let’s recap what we’ve discussed so far.

In general, there are two types of performance problems; Can’t do and Won’t do. These problems are not mutually exclusive, it is possible for someone to currently lack the skills necessary to complete a task while there are consequences in place that support inappropriate behavior.

Can’t do problems occur when performers don’t have the knowledge, skills, or abilities to perform appropriately. Antecedent interventions such as task clarification, training, or meetings are used to address these issues. Won’t do problems occur when there are not adequate consequences for desired behavior or there are more effective consequences for undesired
behavior. Consequence based interventions should rely on positive reinforcement as much as possible; avoid using aversive contingencies (negative reinforcement, punishment, and penalty).

The PIC/NIC analysis is a tool that can help you diagnose the antecedents and contingencies affecting behavior. Take the perspective of the performer and list all the antecedents and consequences that can either prompt or result from both the desired and undesired behavior. If effective antecedents aren’t the problem, then you’ll need to arrange the environment to provide more effective reinforcement for desired behavior.

The next tool we’ll be looking at is called the Mager Performance Flowchart. The designer of this tool is Robert Mager, an instructional design and training expert.

This tool is designed to help you select the best interventions to solve performance problems before you engage in costly training procedures. All too often when someone isn’t performing at desired levels, training is recommended before other solutions are attempted. In 2008 the American Society for Training and Development estimated that organizations in the U.S. spent a combined $134.7 Billion dollars on training. As we discussed earlier, training is an Antecedent based solution and should be used with Can’t do problems. This flowchart works as a heuristic to test whether other solutions are more appropriate for the performance problem.

The first step in the flowchart is identifying the performance problem and deciding on whether there is enough of a gap in performance to warrant finding a solution.

The next three steps ask you to identify whether the performers have received clear expectations about their performance, whether they have the necessary resources, and whether they can tell if they have accomplished the task at desired levels. The chart then recommends either clarifying expectations, providing resources (job-aids, tools), or providing performance
feedback. If the problem is not sufficiently solved with these solutions, you continue through the chart.

The next two steps ask you to determine if there are any punishers for desired performance or rewards for poor performance. Once punishers for desired performance and rewards for poor performance have been removed the next step asks you to examine whether there are currently effective consequences in place for desired performance. If the problem is not solved by providing and rearranging these consequences, then it is time to consider training related solutions.

Before you begin training the flowchart asks you to consider providing opportunities to practice, finding ways to make the task easier, and removing any obstacles that could be hindering performance. Only after all of these steps have been taken does the flowchart ask you to consider training.

The Mager Performance Flowchart is designed to make you consider all other alternatives before resorting to training. The first steps make you consider antecedent interventions such as task clarification, job-aids, and performance feedback. These interventions are often the easiest and cheapest to deploy in terms of both man hours and maintenance. The next steps ask you to consider consequence related interventions by either removing reinforcement for poor performance or punishment for desired performance. Adding additional consequences such as praise, rewards, or token systems will often generate the desired performance but are usually more time intensive and take more resources to maintain. Only after antecedent and consequence interventions fail does the flowchart recommend training.
The last tool we’ll be discussing is called the Performance Diagnostic Checklist for Human Services or the PDC-HS. This tool was designed based on the original PDC in conjunction with James Carr from the BACB.

The original PDC was created based on the Behavioral Engineering Model that Performance Management pioneer Thomas Gilbert created back in the 1970’s. The PDC-HS is designed to help identify solutions for performance problems based not just on opinion but on actual observations of performance.

Unlike the PIC/NIC Analysis or Mager’s Performance Flowchart, this tool is designed to create comprehensive interventions that could involve both antecedent and consequence based solutions. The value of the PIC/NIC Analysis or Mager’s Performance Flowchart comes from how they make us think about performance problems; they are designed to help us ask the right questions and focus on changes we can make to the environment to improve performance. The PIC/NIC analysis and Mager’s Performance Flowchart are more like a Functional Analysis where the PDC-HS is designed to be like a Functional Behavior Assessment. The PDC-HS is meant to be a systematic approach to identifying all possible causes for poor performance based on interviews and direct observation.

The first section of the Performance Diagnostic Checklist for Human Services PDC-HS is titled Training and contains 4 items.

Item one asks you to identify whether the employee has received formal training in the task. Item two requires you to observe directly whether the employee can accurately describe the target task and when it should be performed. Item three asks you to identify whether the employee has ever accurately completed the task in the past. Item four requires you to observe directly whether the performer can complete the task at an appropriate speed. These items are
aimed at identifying whether there is a need for training. Any items marked as “No” would indicate that some form of training would be appropriate. If the employee has completed the task accurately before then chances are training isn’t needed. The last item is intended to identify if the employee is fluent in the task. If not, then they should be given opportunities to practice the skill.

The second section is titled Task Clarification and Prompting and contains 5 items. Item one asks you to identify if the employee has been informed that he/she is expected to perform the task. Item two requires you to observe whether the employee can state the purpose of the task. Item three requires you to observe whether there is currently a job-aid available in the task area. Item four asks you to identify if the employee has ever been reminded to complete the task. Item five asks you to identify if the environment where the task is performed is conducive to completing the task.

These items are designed to identify whether antecedent interventions such as task clarification, job-aids, or prompts are appropriate to solving the performance problem. If the performer has not been informed about performance expectations or cannot explain the purpose of a task, then task clarification could be an effective intervention. Remember these types of interventions are only effective if the performer lacks the knowledge, skills, or ability to perform at the desired level.

The third section is titled Resources, Materials, & Processes and contains 6 items.

Item one asks you to identify whether there are currently enough trained staff available in the program. Item two requires you to observe whether the materials required for the task are readily available. Item three requires you to observe whether the materials required for the task are well designed for their intended purpose. Item four requires you to observe whether the
materials required for the task are well organized. Item five asks you to identify whether failure to complete previous tasks is interfering with the performance of the target task. Item six asks you to identify if other performers are responsible for completing those previous tasks.

These items are designed to identify if there are any resources or processes you can change to improve performance. The first item is meant to determine whether there are enough performers available to complete the task. The next three items are all intended for you to analyze the specific materials being used to complete the task and determine whether you can make them easier to get to when needed, design them to perform better, or organize them to be more efficient. The last two items are meant to determine if there are changes to the process you can make to improve performance.

The last section is titled Performance Consequences, Effort, and Competition and contains 5 items. Item one asks you to identify whether the employee is ever directly monitored by a supervisor and if so, at what frequency. Item two asks you to identify whether the employee ever receives feedback about their performance and if so, what kind of feedback and at what frequency. Item three asks you to identify whether the employee ever can see the effects of accurate task completion and if so, how they see it. Item four asks you to identify whether the task is particularly effortful or difficult. Item five asks you to identify whether other tasks are taking precedence over the target task and if so, which ones.

These items are designed to identify if you can create more accountability or provide consequences for performance. The first item is meant to determine whether you are currently providing adequate supervision for the performer or the target task. The second item is meant to determine if the current feedback for the performer or target task is adequate to support high levels of performance. The third item is meant to determine if the performer can generate self-
feedback on their performance to know when they’ve had a successful performance. The fourth item is meant to determine if you can make the task less effortful or aversive to complete. The last item is meant to determine if the performer is prioritizing other tasks to the detriment of the target task.

Let’s review the main points we’ve covered during this module.

“Can’t do” problems occur when a performer lacks the knowledge, skills, or ability to perform a task at desired levels. “Won’t do” problems occur when the current consequences for desired performance do not exceed the consequences for poor performance. These problems are not mutually exclusive, and you may need to design interventions that target both antecedents and consequences to effectively improve performance. In order to properly diagnose performance problems and create effective interventions we have to start asking the right questions. Instead of asking “Why” someone acts a certain way, we need ask “What happens to them” when they behave that way.

There are several tools we can use to start asking the right questions. The first is the PIC/NIC analysis which asks us to identify the antecedents and consequences currently prompting and maintaining both desired and undesired behavior. This analysis helps us focus on the environments impact on behavior instead of looking for internal or mentalistic excuses for performance.

The second tool is Mager’s Performance Flowchart; this tool is designed to identify either antecedent or consequence solutions to performance problems before resorting to expensive or unnecessary training.
The last tool is the Performance Diagnostic Checklist for Human Services (PDC-HS). This tool is designed to help you interview managers and observe employees to identify all aspects of the environment that can be altered to effectively improve performance.

The most important tool in diagnosing performance problems is you. Staying objective and unemotional while focusing on the environment’s effects on performance can be difficult. It’s very easy to fall into Fundamental Attribution Error and to put all the blame on the performer. By using these three tools we can design effective interventions and create a workplace nearly all performers can exceed in.

In the next module, we’ll be discussing one of the most common and effective OBM interventions: Feedback.
APPENDIX I

Module 4 Script
This module in the Performance Management training series is all about feedback. Performance feedback is one of the most important tools a manager should know how to use. It is one of the most effective and frequently used interventions in the OBM literature.

When combined with reinforcement and other consequences, feedback can help create superior performance. This module will outline the best practices from the literature on when, where, and how to deliver performance feedback.

Feedback is more than just information or data about performance. For information to be considered feedback it has to allow a person to change their behavior. If you present information to someone on their performance and they don’t know how or what to change to improve, then you haven’t given them feedback.

To help a person to change their performance, feedback should first communicate where the performer is relative to some goal or target criteria. Secondly, it should communicate what behaviors need to change to improve performance. If there is a clear link between behaviors and results, then which behaviors need to be improved are often easily inferred or implied by the feedback. If the link isn’t clear, then you will need to provide task clarification or other antecedents to ensure behavior change.

If you’ve created specific behavior or results pinpoints, then you should have a great basis for designing feedback.

There are three ways you can present performance feedback: Verbal, Written, and Graphic. How you decide to present feedback will depend heavily on when and where you are presenting it. If you’ve just watched someone perform using an observation checklist then it would probably be best to present their feedback verbally right after the observation.
having a weekly meeting, then preparing a performance feedback graph before-hand is well worth the added effort.

For complex or critical behaviors or results, graphic feedback can be an amazing tool for maintaining or increasing performance. Graphs may take longer to create than a simple written or verbal message, but can create larger increases in performance. Studies that have compared different types of feedback presentations usually find the largest gains in performance when using graphic feedback.

A line graph not only communicates current performance but contrasts it to past performance. If you add a goal line or target criterion to the graph, you can see even larger improvements. Once you have a graph template in Excel it becomes relatively simple to update and print new graphs.

The question of when to deliver feedback has been examined in several studies. The general finding is that it is best to present positive feedback immediately following performance and constructive or negative feedback immediately before the next time they engage in that behavior. These general findings are more robust when working with new or poor performers that are receiving training in new behaviors.

So, if you were to observe a less experienced or new BT and you wanted to provide feedback on their performance then it might look something like this.

BT runs trial 1 □ Provide positive feedback □ Provide constructive or negative feedback if available □ BT runs trial 2 – repeat until all trials are run

This kind of coaching sequence is great for new or poor performers since it offers frequent feedback. If you were working with an average to good performer then you wouldn’t probably use such feedback heavy coaching, instead you would want to use a sequence like this.
BT runs drill 1 □ Provide positive feedback □ BT runs drill 2 □ Provide positive feedback – repeat until observation concludes or session ends

Before the BT begins their next session, when they will be running those same drills, deliver negative or constructive feedback □ BT runs drill 1 □ Provide positive feedback

One interpretation for why this sequence is effective is that it provides more immediate reinforcement for behaviors that are already occurring and gives a better antecedent for behaviors that are not occurring. From the perspective of the BT think of it like this: I’ve just finished a drill and I’ve been told I did well following the second delay before prompting but I need to work on presenting the SD since sometimes I forgot to shuffle the order of the stimuli. Is it more likely that I’ll remember to shuffle the stimuli if I’m running the drill right after I’ve been told that feedback or if I don’t run that drill until several days later?

While the literature indicates constructive or negative feedback improves performance the most when the performer can then practice that behavior immediately, you can still get improvements in performance if the feedback only follows behavior. If you can’t logistically plan to deliver constructive feedback before their next opportunity to practice the behavior, then go ahead and deliver it with any positive feedback you have. Alternatively, you could leave them a written note or an updated graph that they could then look at before they engage in those behaviors.

The sandwich method of feedback is an area where anecdotal evidence abounds and experimental analysis is currently lacking. Few studies have been published on the subject but most OBM consultants and researchers have an opinion about it.

The sandwich method of feedback is when you give someone a positive feedback statement, follow it up with a constructive or negative feedback statement, and then end the
conversation with another positive feedback statement. This sequence has been notated in the literature as P-C-P.

The few studies that have examined the sandwich method of feedback have found mixed results, with some finding it more effective or less effective than other sequences (C-P-P, P-P-C). Preference data is also mixed, with some subjects preferring the sandwich sequence and others not.

Most OBM professionals believe you lose efficacy by diluting the constructive or negative feedback statement by not making it the focus of the conversation. The consensus suggestion is that you should start with the least important feedback and end with the most important, whether it is positive or negative. If there are very few things your performer needs to improve start with the constructive feedback and then end with the positives to celebrate. If there is an urgent or critical behavior to improve, start with the positives and then end with the constructive feedback.

The key take-away point is this: good feedback is always better than no feedback. The goal of feedback should determine your sequence. Do you want to celebrate success? Then end your feedback sessions with positive statements. Do you need some critical behaviors to improve? Then end your feedback statements with targeted constructive statements.

The following slides will outline 4 tips on how to make more effective feedback.

It might seem obvious but you should keep the feedback based on specific performance your employees can control.

If your feedback is based on behaviors, then control has to do with the knowledge and skills the performer has. Is the feedback specific enough they can improve performance with their current knowledge and skills? If they don’t know what behaviors to change or how to
change them then the feedback is not based on performance they can control. Let’s say you have a new BT whose pace of instruction is too slow. Telling him “you give the client too much time with the reinforcers” is probably not specific enough for him to change his performance. Telling him “only let the client play with the reinforcers for as long as it takes you to record data and prepare for the next trial” would give him specific behaviors to improve upon.

If your feedback is based on results, then control is the degree to which the performer’s behaviors directly influence those results. If 90% of sessions that start late are due to factors outside of the BT’s control (late parent drop-off, technical problems with tablets, etc.), then a results pinpoint and feedback for “% of sessions started on time” isn’t going to be under their control.

Feedback shouldn’t just be objective, it should include evaluative statements. Objective feedback is specific information about past performance in the absence of praise or criticism. Objective feedback would sound like this “You completed 15 drills in your last session” or “You were 5 minutes late.”

Evaluative feedback is praise or criticism based on past performance in the absence of specific information. Evaluative feedback would sound like this “Great job working with JW” or “You need to practice following the correction procedure.”

Objective or evaluative feedback alone can improve performance, but combining the two results in much larger and more consistent effects. A combination of objective and evaluative feedback would sound like this “Great job working with JW, you completed 15 drills in your last session. That’s 5 more than the average number of drills he completes in a usual session.” If you are using graphic feedback, you can provide supplementary verbal or written evaluative statements.
Keep your feedback focused on improvement. Instead of saying “20% of SDs were presented incorrectly” say “80% of SDs were presented correctly”. Surveys of employees show they greatly prefer feedback when it is presented in the latter format. If your feedback is focused on positive improvements instead of reductions in errors, it’s more likely to be associated with reinforcement.

Use feedback as an antecedent for reinforcement. Feedback alone may result in short-term improvements in performance but to maintain long-term performance you’ll need to provide consequences. By keeping feedback focused on improvement it will be much easier to use it as an antecedent to reinforcement. Reinforcement can be as simple as a “thank you” and praise for good performance.

While Individual feedback is usually better at generating large improvements in performance, group feedback can also be very effective. When used successfully, Group feedback can help foster teamwork and produce social contingencies to help maintain performance.

When providing group feedback, it should be posted publicly where as individual feedback should be provided privately. Feedback and the systems or processes you use to deliver feedback should be associated with positive reinforcement as much as possible. If you post individual performance feedback publicly, then you’re going to create negative reinforcement contingencies.

Some tips to help improve group feedback include:

Keep groups to 10 or fewer performers, if groups are too large then individuals are more likely to engage in “social loafing” where they exert less effort because the remaining group members will likely pick up the slack.
Feedback should compare group performance to some standard or goal performance or the group’s own past performance. Avoid group to group comparisons when possible. Competition shouldn’t cause exclusion of everyone but one group. Don’t rank your groups, reinforcement needs to be available to everyone who meets your standard or target criteria.

Favor graphic feedback over verbal or written feedback and dedicate space to posting it publicly.

Make it fun by introducing a theme. Have groups create a team name to go with the theme (e.g. Famous behavior analysts, local sports teams). Use reinforcers that match the theme (event tickets, books, etc.) Have your groups help in the process for deciding on the theme and reinforcers.

So far, we’ve only looked at the different ways you can provide effective performance feedback to your subordinates. Now it’s time to discuss how you should receive constructive or negative feedback and how you can coach others to receive negative feedback.

The first step in receiving feedback is the hardest, trying to remain objective or unemotional about the constructive or negative feedback. This can be difficult if the person giving you feedback has worded their statements poorly. For example, if after a parent meeting your supervisor tells you “I don’t think you were prepared for that meeting,” you could easily become defensive if you disagree with that statement. If you are not in an appropriate place to discuss the feedback, ask your supervisor if you can move the discussion to a private setting. Try to make sure your body language, facial expressions, and tone of voice convey that you are open to receiving feedback.

The next step in receiving feedback is to ask clarifying questions. If the feedback was not specific enough, you want to ask clarifying questions to better understand which behaviors you
should change. After hearing “I don’t think you were prepared for that meeting” you might ask “was there a specific part of the meeting I didn’t seem prepared for” or ask about specific behaviors you engaged in like “did I answer questions appropriately, did I present the client data well, did I explain future steps poorly”. These questions should prompt your supervisor to provide more specific feedback.

Once you have the specific feedback, you should summarize the feedback and communicate the change in behavior you believe the feedback conveys. If your supervisor clarified that during the parent meeting you were not able to answer questions about the client graphs effectively and what that data meant about the skills the client had acquired, you could say “I need to spend more time identifying the skills associated with the drills I have graphs for” or “I should identify the skills each drill is targeting before I present data for it.”

Remaining objective and unemotional, asking clarifying questions, and summarizing the behavior changes you need to make will help you respond well to constructive feedback. Supervisors will feel more comfortable delivering feedback to you if the process feels positive.

When delivering constructive feedback to your subordinates, you should coach them on these three steps. If they simply respond with “ok” after you give them feedback, then you can’t be sure they understood what you’ve said or asked them to do. You also want to make sure you’ve given clear and specific feedback, so having them clarify and summarize your feedback will help you learn to provide better feedback.

Similar to the process of receiving negative feedback is the process of receiving bad news. When talking about how people receive bad news people often use the phrase “Don’t shoot the messenger.” The reason this phrase exists is that the first reaction people often have is
to become emotional or point blame at the person reporting the problem. If you punish people for reporting the problems they are having, then they will eventually stop reporting problems.

When someone reports a problem to you, thank the person for coming to you with the issue. Smile and avoid having an anxious or accusatory tone when asking follow-up questions. Once you’ve welcomed the news, ask clarifying questions to collect more details about the problem. Even if you suspect the person’s behavior to be the source of the problem, now is not the time for punishing that behavior. Instead, discuss what will correct the problem now and thank them for their honesty.

Once you’ve resolved the issue or put in motion steps to do so, you can evaluate the best course of action for how to deal with any inappropriate behaviors that may have occurred. Gross misconduct or violations of protocol may warrant punishment but lesser violations should be treated as coaching opportunities.

Given the following scenario, which of the following responses seems most appropriate if you want to avoid shooting the messenger?

Let’s review the main points from this module.

If the information you provide is not enough to allow a performer to change or improve their behavior, then it is not feedback. To make behavior change more likely you should be specific about what behaviors to change and where current performance is relative to some goal or target criteria.

Don’t sandwich negative feedback statements with positive ones. If you need to focus on improvement, then give constructive or negative feedback as necessary. The best time to deliver constructive feedback is just before the performer’s next opportunity to practice.
Use feedback as an antecedent to reinforcement and celebrate success often. If you focus feedback on improvements and positive behaviors, instead of reductions in errors, you will be more likely to keep feedback as an antecedent for reinforcement. Combining objective feedback statements with evaluative praise will more consistently improve performance than either objective or evaluative statements alone.

When receiving negative feedback, you should remain objective and unemotional, ask clarifying questions, and summarize the feedback. Following these three steps will help make the process a positive experience that can improve how future feedback is delivered. Coaching your subordinates in how to receive feedback will help to ensure you deliver specific actionable feedback. Similarly, if you someone is bringing you bad news or reporting a problem, first thank them for that behavior and then start asking questions that will help you solve the issue.

In the next module, we’ll be discussing goal setting and best practices in monitoring performance.
APPENDIX J

Module 5 Script
In this module of the Performance Management training series we will be discussing how to set goals and strategies for providing reinforcement. We will review the benefits of goal setting, strategies for determining goal levels, mistakes to avoid when setting goals, methods to identify reinforcers, and the types of reinforcers you can use.

Before you can set effective goals, you need to first pinpoint behaviors and results. Once you know which pinpoints your performers should be achieving, you can then set goals to achieve those pinpoints. Depending on the performer and the specific pinpoint, you could have one goal or several tiers or sub-goals.

Goals by themselves do not reliably improve performance. That’s because goals primarily function as antecedents for performance. For goals to improve performance, goal attainment must be paired with reinforcement. Overtime the consistent pairing of goal attainment and reinforcement could help goals take on a secondary reinforcing characteristic. However, their primary behavioral function is to work as antecedents for performance. Without reinforcement for goal attainment, performers will quickly stop meeting goals and return to prior performance levels.

The first step in using goal setting to improve performance should always be planning the reinforcement for goal attainment. As we’ll be discussing later in the module, there are all sorts of different types of reinforcement you can use to celebrate goal achievement. If you don’t plan for how you’ll reinforce goal attainment, then you’ll be less likely to provide an effective reinforcer.

A major benefit of goal setting is that it should increase the number of opportunities you have to provide reinforcement to your performers. Between all the different tasks and responsibilities supervisors have, it can be easy to forget when to provide reinforcement or when
significant milestones have been achieved. Goals can help to not only prompt your employees to perform better, but can help you as a supervisor to know when reinforcement should be given.

The second step in goal setting is deciding where to set your goal levels. You want goals to be challenging but achievable. There are two mistakes you can make when deciding where to set your goal levels. The first mistake is that you can set your goal levels too low, and the other is that you can set your goal levels too high.

When goals are too low, you are basically guaranteeing that the performers will achieve the goal, which is good because you now have an opportunity to reinforce the performance. Once a performer is rewarded for goal achievement they will be more likely to engage in behaviors that achieve goals in the future. The mistake is that you lose efficiency in how much improvement you could have achieved. If you want further improvements in performance, then you will have to increase goal levels along with a commiserate increase in the reinforcement for goal attainment.

Setting goal levels too high is the worst mistake of the two, since it is unlikely any performers will attain the goal. If performers don’t meet the goal, then they don’t receive any reinforcement. This will effectively put their effort towards goal attainment on extinction. Over time this will discourage performers from attempting to reach the goals you’ve set.

Setting goals too high has unfortunately been encouraged in many industries for a long time. These goals are called “stretch” goals and are nearly unattainable. For example, if a sales manager has a department with an average weekly sales volume of 1,000 products, they might set a stretch goal of selling 2,000 units. As weeks pass and the employees fail to meet this weekly stretch goal their effort will be extinguished and most will stop attempting to reach the goal.
So why have stretch goals been so popular if they are not effective? Managers often think that they have to set large stretch goals to keep employees busy, because once they reach their goals the employees stop performing. If someone only performs up to a certain criterion and then stops performing, you’ve likely got someone whose behavior is being maintained by negative reinforcement. With negative reinforcement, the performer will only engage in a behavior long enough to escape or avoid some aversive outcome. As we’ve said in previous modules the best way to increase performance is with positive reinforcement instead of punishment or negative reinforcement.

The following slides will outline 4 strategies you can use to determine where to set goal levels. Using these strategies should help you avoid making the mistake of setting goal levels either too low or too high.

The first strategy is to base goal levels on the performer’s past performance. You should find the performer’s average performance and their best performance and then set the goal somewhere under their best performance. More than likely the performer should be able to reach the goal but it should be challenging since it is more than their usual performance. Depending on how variable the performance is you’ll want to set higher or lower goals.

Let’s say you have a result pinpoint for the number of drills a client receives in a week. You could look at the average number of drills a BT does and set a goal with them based on those numbers. Let’s say the BT averages about 14 drills per session but has achieved 18 drills once before. You could set a goal of 16 or 17 drills per session and be confident the BT could achieve it based on past performance. The more data on past performance you have the more accurately you can set your goals.
The second strategy you can use when deciding how to set goals is to base the goal levels around the learning curve of the task. A learning curve approximates how difficult a task is to learn from beginning to mastery.

Most learning curves are “S” shaped meaning the task is difficult to learn at first, but after some basic skills are learned then ability in the task increases quickly, and then at some point as the person gets closer to mastery learning becomes difficult as some tiny details or skills take much longer to learn.

The other types of learning curves are positively or negatively accelerated curves. Positively accelerated curves start out very difficult but as time passes and skills are learned mastery becomes achieved quickly. With Negatively accelerated curves, learning happens quickly but as mastery is approached the skills become more difficult.

When learning is difficult (beginning and end of S curve, beginning of positive curve, end of negative curve) you should put goals closer together. When learning becomes easier and skills are mastered faster (middle of S curve, end of positive curve, beginning of negative curve) goals should be spaced farther apart.

The third strategy you can use when setting goal levels is to base them off the performance of others. For example, you might set initial goals for a new BT based on the performance of previous newly trained BTs. If you have a new Lead join your team you might create goals based on the average performance of your other Leads.

If you don’t have information on the performer and you create goals based on other people’s performance you should be prepared to adjust those goals once you’ve collected more relevant data.
The last strategy you can use to set goal levels is to enlist the help of the performer. This is often called “participative goal setting.” Typically, goals are assigned by supervisors, but when input from the performer is used it is then considered participative goal setting.

The results from studies examining assigned vs participative goals has been mixed. Sometimes assigned goals produce more improvement, other times participative goals have better results.

If you would like to include the performer in deciding on their goals, make sure that they are at least moderately skilled in those goal areas. If they are new to those tasks, they will not be as likely to set realistic goals. During a participative goal setting meeting present any data you have on performance or ask about their average performance levels before asking for a realistic goal. If you don’t think a goal is realistic then you should change the goal to make it achievable. You can also provide a range of goals to choose from so that you are the one ultimately setting the goal but you are giving the performer the opportunity to choose what they think is best.

Goals can be set at both the individual and group level. As we mentioned in the last module on feedback, group contingencies can be great at fostering teamwork and can make use of social contingencies to maintain performance.

When setting goals at the group level avoid setting up exclusive reinforcers. You should provide reinforcement for all groups that meet their goal.

Keep groups under 10 performers so that individuals are more aware of their own contributions. If individuals don’t think their performance will contribute to the group’s goal attainment they are less likely to put in effort to obtain the goal.

Remember that any individual feedback you give should be private and group feedback should be posted publicly.
Group goal setting is great for long term projects or tasks involving higher amounts of teamwork.

One of the most important things to remember when setting goals is to not mix goal setting with reinforcement. Mixing goal setting with reinforcement means that you set a goal, the performer attains the goal, you provide reinforcement for attaining the goal, and then raise the goal without changing the level of reinforcement. Now the performer must work harder for the same level of reinforcement, which sets up goal attainment as an antecedent to punishment. Let’s say you set a goal for a BT of delivering 15 drills in a session. If they attain the goal, you provide them with a $5.00 gas card. If every time they reach the goal you increase the number of drills they need to complete to receive the gas card, but you don’t increase the value of the card, then you have just mixed goal setting with reinforcement.

That is why the first step in goal setting should be planning for the reinforcement. You should have alternative reinforcement available for when you want to or need to raise goal criteria.

Let’s recap some of the major points around setting effective goals.

Start by planning for the reinforcement you will give for goal attainment. Make sure you can actually deliver what you plan on, so that your performers don’t feel cheated if they reach the goal and aren’t reinforced accordingly.

Set challenging yet attainable goals. Stretch goals that are nearly impossible to obtain will extinguish performer effort and make future goal setting less successful. Use the performer’s past performance levels, the performance levels of others, and the learning curve of the task as your main sources of data for setting goal levels. With experienced performers, you can include their own input and suggestions for establishing goal levels to make them participants in the process.
The following slides will cover some strategies and tips for selecting and delivering effective reinforcers. One of the most important functions supervisors serve is the reinforcement of their subordinates’ good performance. The work environment can be a very punishing place naturally. Screaming, hitting, and failing to see progress in a client can take their toll on everyone. Reinforcement can help reduce the impact of these naturally aversive contingencies while improving employee morale and performance. The following slides will review strategies you can use to find what your employees find reinforcing, what characteristics effective reinforcers have, and some specific examples of reinforcers you might use.

The first step to take when planning reinforcement is to identify what your employees find reinforcing. There are three methods you can use to identify reinforcers. Whichever method or combination of methods you use, make sure to take data on whether they are actually reinforcers. If performance doesn’t improve, then you don’t have a reinforcer.

First, you can simply ask them. This approach works best if you have a positive relationship with your employees. Otherwise, suddenly asking them questions about their personal lives might make them suspicious or hostile. Asking them could be as simple as a conversation about what they would like to recognize different achievements or what they like to do outside of work. It could also be as formal as a survey of different items they rank order from most to least preferred. If you do make a survey, make sure you administer it personally.

Second, you can observe your employee’s behavior at work. Do they have preferred tasks they volunteer to do? Are there subjects they talk about with coworkers like sports teams or movies? Do they eat lunch at the same place most days or bring in the same snack or drink? Observing these behavior patterns can provide ideas for things they might find reinforcing.
Lastly, you can simply use trial and error. Select reinforcers that you think might be reinforcing and start using them. If you are taking data like you should be, then you’ll know if you have found an effective reinforcer. If performance isn’t improving, then you need to keep searching.

Once you have an idea for what things you might want to offer as reinforcers, then you should consider the following three characteristics of effective reinforcer.

Effective reinforcers are controllable. If you can’t deliver a reinforcer or control when a reinforcer will be delivered, then you shouldn’t indicate it as a possible reinforcer to your employees. You need to plan for who will purchase any tangible items and who will keep track of the number of items you have available. Make sure you can procure more items quickly so that nobody is left waiting to receive their reinforcers. Make sure any items you select are cleared with any appropriate supervisors or the HR department.

Effective reinforcers are repeatable. If you want to reinforce daily or weekly goals, then you’ll need a very repeatable reinforcer that your performers will want to work for without satiating. There’s only so many times a performer can receive a new coffee mug before they don’t find it reinforcing anymore.

Effective reinforcers are cost efficient. This means that effective reinforcers should be in proportion to the behavior being reinforced. If you are spending more time, money, or resources on the planning or provision of reinforcers than you are getting in return through improved performance then you should consider finding new reinforcers.

Now that we’ve discussed how to both identify possible reinforcers and what characteristics make for effective reinforcers, let’s talk about some specific types of reinforcers you may want to use with your performers.
The most cost-efficient and often the most effective reinforcers are Social reinforcers. Praise statements or memos of recognition can be powerful reinforcers. Make sure to always deliver these with sincerity. Also, be specific about which behaviors or results earned the praise. “Great job today” isn’t going to be nearly as effective “Great job working with AK today, you really helped out a lot with her behaviors during lunch.” The more you practice delivering social praise the more often you’ll find opportunities to deliver it. Keeping data on how often you praise people is a good way to self-monitor your own supervisory performance. Plaques, trophies, or certificates are more permanent forms of social reinforcers. These can be customized to fit any level of the organization from individual teams to agency wide recognition.

Parties, or other group celebrations are great social reinforcers for long-term projects or group goals. Having your performers help plan for the theme or celebration specifics can also help get buy-in at the beginning of projects.

Other types of social reinforcers could be one-on-one meetings or lunches with management. Make sure these one-on-ones or lunches don’t become exclusive to favorite performers, they should be available to anyone that meets the target criteria you set for them.

The next category of reinforcers are Tangible items. Tangible reinforcers should always be paired with social reinforcers. Make sure they are contingent on specific performance and proportional to the achievement. Randomly giving out tangibles in the hopes it will make happy and great performers is just wishful thinking.

The most recognizable item of this category is additional pay or bonuses. The great thing about additional pay is it is very hard for most performers to satiate on money. The problem with using bonuses is that when performers don’t receive them, they can become aggravated or hostile, especially if they repeatedly fail to receive them. With all reinforcement, and especially
with monetary reinforcement, the target criteria need to be clear and performers need to know how they are being assessed. If there is a disagreement in performance levels, then specific meetings should occur so that performance expectations can be clarified and the correct behaviors modeled or demonstrated. Nothing feels worse than thinking you’re performing exceptionally, only to find out after it’s too late to change, that you were judged to have performed poorly.

Other frequent tangible items include company branded merchandise such as coffee mugs, t-shirts, or office supplies. Not all of these items are appealing to all performers and it can be easy to satiate on them. Using these infrequently to supplement social reinforcers is the best way to get the most use from them.

Other types of tangible items include gift cards for specific stores or categories of merchandise; food items; additional break, vacation, or sick time; reimbursement for education or professional development; company stock; or tokens as part of a token economy. The more you know about your performers the better you will be able to select meaningful and effective tangible reinforcers.

The last category of reinforcers is called work related reinforcers. These items are typically given based on seniority when they could be used contingently to promote performance. Just like tangible reinforcers, work related reinforcers should be paired with social reinforcement.

Work related reinforcers could include assignment to preferred tasks; working as a team leader; additional training or cross-training; promotions; scheduling privileges or flexibility; opportunities to set or decide on goals; leading a meeting; or using preferred or newer equipment.
Using the opportunity to engage in a preferred behavior as reinforcement for engaging in a less preferred behaviors, otherwise known as the Premack Principle, works well with this category of reinforcers. If you know a performer strongly dislikes a specific task and prefers another, you can use the preferred task as reinforcement for good performance in the less preferred task. For example, if you know a Lead finds mastering out drills tedious or boring but loves laminating stimuli, you can assign them the drill mastering task first and give them additional laminating tasks as reinforcement for good performance.

Just like with tangible reinforcers, the more you know about your performers the more reliably you can find effective work related reinforcers.

Let’s recap some of the major points from this module.

When setting goals, you want to start by planning for the reinforcement you will give for goal attainment. Make sure you can actually deliver what you plan on, so that your performers don’t feel cheated if they reach the goal and aren’t reinforced accordingly. Use a mixture of social, tangible, or work related reinforcers. Make sure all reinforcement is contingent on performance and remember that the most effective reinforcers are controllable, repeatable, and cost efficient.

Set challenging yet attainable goals. Stretch goals that are nearly impossible to obtain will extinguish performer effort and make future goal setting less successful. Use the performer’s past performance levels, the performance levels of others, and the learning curve of the task as your main sources of data for setting goal levels. With experienced performers, you can include their own input and suggestions for establishing goal levels to make them participants in the process.

Many managers think they don’t have time to reinforce performers or that they should just do a good job because that’s what they get paid to do. The reality is that the more you
practice reinforcing people, the easier it becomes and the easier it will be to recognize those reinforcement opportunities. The work environment can be a naturally punishing and stressful place, a simple word of encouragement or token of appreciation can be the difference in someone having a great or poor work day.
APPENDIX K

Module 6 Script
Welcome to the final module in the Therapeutic Pathways Leadership and Performance Management Training Course. The purpose of this module is to highlight some of the findings in the supervision literature for which behaviors effective leaders engage in most frequently. This module will also discuss different strategies you can use to implement the tools you’ve learned about throughout the course.

A quick Google search for “effective leadership behaviors” will turn up dozens of webpages, blogs, books, and articles that detail countless numbers of anecdotes and case studies for which behaviors leaders and supervisors should engage in. From the behavioral literature one of the best developed models of leadership comes from Dr. Judith Komaki.

Beginning in 1986, Dr. Komaki started studying which behaviors effective supervisors engaged in that less effective supervisors did not. These studies have centered around the development and findings of a tool called the Operant Supervisory Taxonomy and Index (OSTI). The OSTI allows an observer to code every possible behavior a supervisor may engage in. While it has changed slightly over the years the original OSTI looked like this, with seven different categories for which all behaviors could fall under.

Komaki conducted an observational study with the Operant Supervisory Taxonomy and Index (OSTI) in 1986 to determine whether the OSTI could actually distinguish between managers that were considered to be effective or marginal.

After coding and observing 24 managers over the course of seven months, Komaki found that effective and marginal managers differed on one key behavior: performance monitoring. Specifically, effective managers engaged in significantly more work sampling than their counterparts. Work sampling is the behavior of directly observing a performer engaged in a work
task or examining the direct products or results of that performance. For example, you could observe someone conducting DTT or you could examine the data collected during DTT.

Komaki and others have since replicated these findings in just over 20 other observational and experimental studies. Across various organizations and levels of management these studies have consistently found two behaviors that effective supervisors engage in more frequently: performance monitoring and providing consequences. These two behaviors are linked as consequences will only improve performance when they are provided contingently for desired behavior. Without performance monitoring it is unlikely supervisors will provide contingent consequences.

Now that we know performance monitoring is a behavior associated with effective supervision and increased performance, let’s look at the three different ways you can monitor performance.

The first strategy you can use to monitor performance is self-report. With self-report, you simply have your employees describe their relevant performance to you. Self-report can be done indirectly with email or notes or directly in-person. Frequent informal self-reports can be useful but can also suffer from bias or inaccuracy.

To enhance the accuracy of self-reports you could implement a Behavioral Self-Monitoring (BSM) program. The typical Behavioral Self-Monitoring program involves providing instructions about the purpose and procedures of self-monitoring, materials for recording observations, and opportunity to share and discuss the data with a supervisor.

Olson and Winchester conducted a review, in 2008, of the Behavioral Self-Monitoring literature to determine the current state of its workplace application and relative effects on performance. The review concluded that BSM can result in large improvements in performance.
especially as part of a multicomponent intervention, typically including feedback and goal setting.

As with any form of self-report, like surveys, this method of performance monitoring is still susceptible to bias and inaccuracy. Employees may underreport the frequency of undesired behavior while over reporting the frequency of desired behavior. To improve accuracy and reduce bias, you should train employees in how to record accurate data, provide instructions that emphasize honesty, avoid implied or actual negative consequences for monitored behaviors, and establish recording prompts that are distinct to the monitored behaviors.

Let’s describe an example scenario where you might use self-report and by extension a Behavioral Self-Monitoring program to effectively monitor performance.

The best application of BSM is for employees that work in isolated conditions away from other employees or supervisors. This could apply to anyone providing services in the client’s home, the client’s school, or in another remote location. It can be used in any setting but the other strategies for monitoring performance should be more accurate and less prone to bias.

First, you would identify the behavior or results pinpoint that could benefit from a Performance Management intervention. In this example, let’s say that you had recently been concerned about the number of drills one of your in-home clients was completing. You observe the BTs working with the client and find that they are spending too much time setting up and transitioning between drills. You notice that on average they take 10 minutes to set-up and begin the next drill. To reduce set-up time, you can have the BTs record how long it takes them to set-up between each drill and then report that data to you at the end of each session.

At the beginning of the intervention you would want to meet with them to describe their current performance as you’ve observed it (average 10-minute set-up time), establish a realistic
ultimate goal for performance (3 or 4-minute set-up time), and then set sub-goals based on their current performance that will lead to that ultimate goal. You would then provide them with a way to record their data such as a paper data sheet and stopwatch. Then provide instruction in the procedures for recording data followed by practice to demonstrate competency. Once they begin collecting data you could have them report their data after or before each session so you could provide feedback or praise, and compare performance to their current goal. If you were worried about accuracy you might have the parent trained to collect IOA data or increase the number of direct observations you spend in the home.

The next strategy you can use to monitor performance is the report of others. For example, you might have a Lead BT provide you with updates for the performance of a BT. Informally asking a Lead BT, “How’s that BT doing” is likely to result in an equally vague response like “OK”. To effectively monitor performance, you will need to get specific about the information that’s important to you. Make sure you ask specific questions about performance so that you can get actionable information.

To make this process more reliable you could design a formal system of observation that your Lead BT could use when monitoring the performance of the BT. You would either have this Lead BT directly observe the BT engaged in the relevant performance or have them look at the outputs of that performance. This strategy of monitoring performance is less likely to have bias and can be more accurate than self-report, if you use a formal process.

Observers will still need to be trained in how to accurately collect data just as you would for someone that was going to self-monitor. You might also have more observers than you would if you chose to have the person self-monitor, which would then potentially take more time to
train. Be sure to provide feedback, praise, or other consequences for anyone that is helping you monitor performance.

Let’s describe an example scenario where you might use other people to monitor performance.

First, you would need to identify a behavior or results pinpoint you would like to monitor. For this example, let’s say that you wanted to look at whether BTs were running all the drills that were active for your clients in a given time period. In this case let’s say that over the course of 10 treatment hours each of your clients should have received each of their active drills at least one time.

You could then train your Lead BTs to audit each client’s data every 10 treatment hours. To formalize the process, you could create a data sheet that listed each client, the number of active drills for each client, and space for the Leads to indicate how many unique drills were run in that period. Leads could then report the data and you could provide feedback and consequences to your BTs.

The last strategy you can use to monitor performance is to monitor performance yourself through work sampling.

Work sampling is the behavior of directly observing a performer engaged in a task or examining the direct products or results of that performance. For example, you could watch a Lead BT in the process of creating stimuli or you could examine the completed stimuli themselves. Depending on the behavior and possible outputs, it will make more sense to conduct direct observation or wait to examine the outputs.
This strategy can be great since you would only require training other people if you would like to collect IOA on your own observations. Again, you will want to design a formal process for observation that includes a way to take data and provide feedback to the performer.

While informal observations can be great for building rapport or getting initial information about performance, a formal observation process will help you to target key behaviors and results more effectively.

Let’s describe an example scenario where you might use work sampling to monitor performance.

First, you would need to identify a behavior or results pinpoint you would like to monitor. For this example, let’s say you recently had an increase in either the frequency or intensity of problem behaviors for one your clients.

You could then create an observation datasheet that measures whether the person delivering therapy was accurately following the treatment protocol, implementing proactive strategies, or using effective methods to deescalate the behavior. You could then set a schedule to observe each BT that works with the client. Based on what you observe you could then provide feedback or consequences as appropriate.

Another finding from the Operant Leadership literature is that effective supervisors are more likely to engage in quick sequences of behaviors where they provide performance antecedents, performance monitors, and then performance consequences. Particularly this sequence of behaviors was usually followed after the manager had engaged an employee in talking about their own performance.

For example, an effective manager on an assembly line might approach one of the line workers and ask him how many errors he had experienced so far in attaching a door to the car...
frame. Once the employee had responded with details about his performance, the manager would then provide an antecedent such as “make sure you put the lower bracket on the door first, before attaching the upper bracket.” Then within a short period of time the manager would return to the line to observe the employee completing the task and provide consequences based on the performance.

This finding of effective leaders engaging employees in conversations about their own performance and then following up with antecedents, monitors, and consequences is in direct contrast to the findings around less effective leaders. Less effective leaders were found to spend more time engaged in solitary activities (i.e. working alone in their office), spend less time interacting with their employees, and when they did interact with employees they spent more time discussing work related topics rather than discussing performance and would only provide antecedents.

For example, an ineffective manager on an assembly line would spend more time in their office than an effective manager. When they would interact with an employee, they would discuss work related things like the number of cars produced that morning instead of the specific performance of the employee. Then they might give an antecedent like “Make sure you finish this task today.”

When you monitor performance frequently, you will be more likely to catch issues before they become critical problems. Since monitoring performance is a behavior, you’ll need to ensure it is being effectively reinforced, otherwise it won’t occur at desired levels.

Self-monitoring your own performance monitoring behavior is an effective way to ensure those behaviors occur, especially when other tasks are competing for your time. You can set automatic reminders for recording the number of performance monitors you’ve delivered in the
day or week. You can also set personal goals for how often and which type of performance
monitor you’ll use in a particular time period.

You can make yourself more accountable by sharing any goals or data collection with a
peer or your supervisor. Peers and supervisors can then provide you with feedback and
reinforcement based on your performance.

Let’s review what we’ve discussed so far.

Of all the behaviors that a manager can engage in, performance monitoring and
performance consequences are the two most strongly associated with effective managers.
Effective managers are more likely to discuss specific performance issues with their employees
before providing antecedents, monitors, and consequences. Less effective managers tend to
spend more time engaged in solitary activities and discuss work related information instead of
specific performance.

You can use self-report, the reports of others, or work sampling to monitor performance.
Work sampling can either be the direct observation of performance or the outputs of the
performance. Make sure whatever method you use that the monitoring behaviors are being
reinforced. Self-monitoring your own performance monitoring behavior can help you to monitor
more often. Sharing your data and goals with a peer or supervisor will help to make you more
accountable.

Now that we’ve discussed some of the key behaviors of effective managers and the
importance of performance monitoring, let’s look at where performance monitoring fits in the
process of designing effective performance management processes and interventions.
The first step in effective performance management is pinpointing. You’ll need to pinpoint the desired behaviors and results that are critical to the roles you supervise. If you don’t know what outcomes are important and which behaviors will achieve those outcomes, then you won’t be able to create effective interventions.

Next, you’ll need effective ways to measure performance. Measure those behaviors and results systematically through the three different methods of performance monitoring: self-report, reports of others, and work sampling. You can measure along dimensions of Quality, Quantity, Timeliness, or Cost. Without good data, you won’t know if performance is improving.

Whenever performance problems occur, use a systematic approach to determine if the performance issues are due to a Can’t do or Won’t do problem. Remember, antecedents like training or task clarification will only help resolve issues when a performer is lacking the knowledge, the skills, or the ability to execute a task. The PIC/NIC Analysis, the Mager Performance Flowchart, or the Performance Diagnostic Checklist for Human Services offer systematic approaches for examining the impact of the environment on performance.

Rely on positive reinforcement! Whether you use social, tangible, or work related reinforcers, make sure that you are reinforcing desired behavior with positive contingencies. Don’t wait for performance problems to occur before you start reinforcing desired behavior.

You can always refer back to the information covered in previous modules and the workbook to help you with any steps in this process.

When you’re creating a performance management intervention, you can use the same experimental designs that are commonly used with behavior analytic interventions for Autism and other developmental disabilities.
These designs include the simple A-B Design, Reversal Design, and Multiple Baseline Design.

With the AB Design, we are simply taking baseline data in phase A, and then implementing our intervention in phase B and looking for changes in performance. This design doesn’t offer much experimental control since there could be any number of other variables that affect performance between phase A and phase B. Unless you’re planning on publishing your data, this design is usually adequate for justifying the continued implementation of an intervention.

With the Reversal Design, we’re looking to alternate between phases where there are either baseline conditions or an intervention. Depending on the complexity of our design it could be as simple as ABAB or as complex as ABACBC. This design offers much more experimental control because of the repeated alternation between conditions. If you observe the same change in performance as you repeatedly remove and implement your intervention, then you can be confident no other variables are controlling the changes in performance you’re observing.

With the Multiple Baseline Design, we are looking to collect baseline data either across participants, behaviors, or settings. Then you would implement your intervention with just one participant, behavior, or setting while keeping the others in baseline. Eventually you would implement your intervention with everyone, and if you noticed that the participants, behaviors, or settings that had been kept in baseline had changes in performance before implementing your intervention, then you would know that some environmental variable besides your intervention had been responsible for the change.

It’s important to know that our interventions are actually impacting performance. To know whether a change in performance is due to our intervention, we always need to take
baseline data. Once we have good baseline data, we can implement our intervention and assess its impact on performance. If the intervention is going to be costly then you might want to use a complex design like the reversal or multiple baseline to justify those costs.

Let’s look at what a simple Reversal design could be with a PM intervention. Let’s say you wanted to assess the impact of delivering weekly feedback and performance contingent praise on how many drills your BTs completed during sessions.

First you would need to collect baseline data for how many drills your BTs were completing. Once you had a stable baseline or performance that was trending away from the intended direction of behavior change, you could then implement your intervention. If performance improved during your intervention phase, then you would collect data long enough to show a stable trend of improvement. You would then return to baseline conditions and remove your intervention. If performance decreased after returning to baseline or it returned to previous levels you would collect data long enough to show a stable trend of decreased performance. You would then reimplement your intervention and assuming performance improved again, you would then have reasonable evidence that weekly feedback and praise were the reason for the increased number of drills your BTs were completing.

If you thought it was unethical or impractical to remove your intervention, then you could instead use a Multiple Baseline design. Remember that whichever variable you measure across (participants, behaviors, or settings), they have to be independent. For example, you probably wouldn’t be able to use a multiple baseline design to measure the effect of training on conducting DTT in the settings of center, home, and school since training in one setting will likely influence performance in the other two.
Let’s say you had 5 different BTs working with your clients. You could collect baseline data with all 5 BTs and then implement your intervention with 1 or 2 of the BTs that had the most stable baseline data. While those BTs received the intervention, you would hold the others in baseline while continuing to take data. If you saw that BTs not receiving the intervention had improved performance you could assume some other factors besides your intervention had influenced performance. Gradually you would implement your intervention with each of the BTs until everyone was receiving it. Having these staggered baselines across the different BTs would then provide you with the experimental control necessary to determine if your intervention had caused any improvement in performance.

Depending on the performance problem, you might design simple solutions such as a job-aid or daily feedback. For more complex problems you might need to create multi-component interventions to ensure behavior change occurs.

Multi-component interventions can combine both antecedent and consequence based interventions. Most multi-component interventions will include either task clarification or a job-aid, performance feedback, and frequent social praise with the occasional tangible reinforcer.

Practicing the implementation of various interventions and learning from mistakes are the only ways to get better at managing performance. Over time you’ll learn how intensive interventions need to be to affect performance and which components can best address particular issues.

Let’s recap what we’ve learned in the module and throughout the course.

Performance monitoring and performance consequences are the two main behaviors associated with effective managers. Effective managers typically discuss performance with their employees and provide antecedents, monitors, and consequences based on those discussions.
Focus on the environmental variables you can control by pinpointing the desired behaviors and results of the employees you supervise. Create systems of measurement through self-monitoring, the reports of others, and work sampling. When performance issues occur, use a systematic approach like the PIC/NIC Analysis or PDC-HS to determine the best solution.

Self-monitor your own behavior and share your data with a peer or supervisor to create accountability. Performance management takes practice to develop fluency and you will make mistakes. As long as you’re trying to rely on positive reinforcement, when you do make mistakes, it will be easier to recover from them.
APPENDIX L

HSIRB Approval Letter
Date: December 5, 2017

To: Heather McGee, Principal Investigator
James Morrison, Student Investigator for dissertation

From: Amy Naugle, Ph.D., Chair

Re: HSIRB Project Number 17-12-02

This letter will serve as confirmation that your research project titled “Performance Management Training Evaluation in an Autism Treatment Facility” has been approved under the expedited category of review by the Human Subjects Institutional Review Board. The conditions and duration of this approval are specified in the Policies of Western Michigan University. You may now begin to implement the research as described in the application.

Please note: This research may only be conducted exactly in the form it was approved. You must seek specific board approval for any changes in this project (e.g., you must request a post approval change to enroll subjects beyond the number stated in your application under “Number of subjects you want to complete the study.”) Failure to obtain approval for changes will result in a protocol deviation. In addition, if there are any unanticipated adverse reactions or unanticipated events associated with the conduct of this research, you should immediately suspend the project and contact the Chair of the HSIRB for consultation.

Reapproval of the project is required if it extends beyond the termination date stated below.

The Board wishes you success in the pursuit of your research goals.

Approval Termination: December 4, 2018
Principal Investigator: Heather McGee  
Student Investigator: James Morrison

You have been invited to participate in a research project. This project will serve as James Morrison's dissertation for the requirements of a Doctor of Philosophy degree. This consent document will explain the purpose of this research project and will go over the time commitments, the procedures used in the study, and the risks and benefits of participating in this research project. Please read this consent form carefully and completely and please ask any questions if you need more clarification.

What are we trying to find out in this study?  
This study aims to gather information about the current knowledge level of Organizational Behavior Management principles in the BCBA and BCaBA community and how it relates to the performance of their duties.

Who can participate in this study?  
Anyone in the Clinical Supervisor, Clinical Assistant, or Program Assistant role that has not yet taken the Leadership and Performance Management Training series.

Where will this study take place?  
You may participate in this study at either your workstation or at home. All study materials will be delivered through email or Therapeutic Pathways' online learning management system.

What is the time commitment for participating in this study?  
Participants will complete two assessments, each will require between 1 hour and 1.5 hours to complete. There will also be a training satisfaction survey that will take between 10 and 30 minutes to complete.

What will you be asked to do if you choose to participate in this study?  
You will be asked to complete the two assessments and the training satisfaction survey.

What are the risks of participating in this study and how will these risks be minimized?  
You may experience some minor stress when you are completing the assessment. These risks will be minimized by the fact that you will be able to work at your own pace during the assessment. There is no time limit for completing the assessment.

What are the benefits of participating in this study?  
You will be contributing to the field of research on leadership and performance management training. You may also learn about this research through participation in the study. The findings from this study may be used to model future training and assessment in the field of behavioral analysis.

Are there any costs associated with participating in this study?  
Besides the time commitment, there are no costs associated with participation in this study.
Is there any compensation for participating in this study?
There is no compensation for participating in this study.

Who will have access to the information collected during this study?
The student investigator, principle investigator, and research staff will have access to the data collected in the study. The data will remain confidential and will be stored in a locked filing cabinet in a locked office of the principle investigator at Western Michigan University for seven years. After seven years, the data will be destroyed. When you begin the study, you will be assigned a number so that your individual progress can be tracked while your identity is held strictly confidential. When the data of the study are presented or published, only your participant number will be used to identify you. Neither your name nor any identifying characteristics will be used.

What if you want to stop participating in this study?
There are no consequences for withdrawing from the study. If you decide to discontinue with the study, you may inform the student investigator or principle investigator. You can choose to stop participating in the study at any time for any reason. The investigator can also decide to stop your participation in the study without your consent. You will not suffer any prejudice or penalty by your decision to stop your participation. You will experience NO consequences if you choose to withdraw from this study. Further, your decision will have no effect on your relationship with Western Michigan University or Therapeutic Pathways.

Should you have any questions prior to or during the study, you can contact the primary investigator, Dr. Heather McGee at 269-387-4460 or heather.mcgee@wmich.edu. You may also contact the Chair, Human Subjects Institutional Review Board at 269-387-8293 or the Vice President for Research at 269-387-8298 if questions arise during the course of the study.

This consent document has been approved for use for one year by the Human Subjects Institutional Review Board (HSIRB) as indicated by the stamped date and signature of the board chair in the upper right corner. Do not participate in this study if the stamped date is older than one year.

I have read this informed consent document. The risks and benefits have been explained to me. I agree to take part in this study.

By signing this consent document, I am giving my permission for data I provide in the course to be used as research data.

Please Print Your Name

Participant's signature

Date