

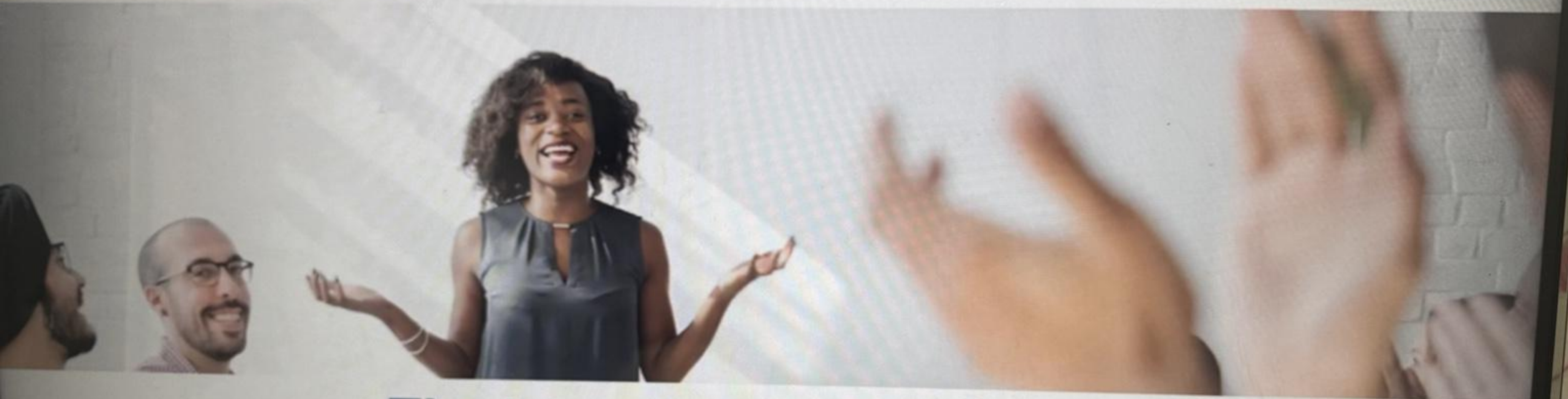
Supervision – Training

Objectives

The goals of this lesson are to:

- Identify conditions under which training is an indicated intervention
- Select learning objectives that meet the criteria outlined by Mager (1997)
- Determine the value of collecting baseline data prior to training
- Identify best practices in all components of behavioral skills training (BST)
- Determine strategies to evaluate the effectiveness of training based on Kirkpatrick (2016)'s Four Levels of Training Evaluation

Reid, Parsons, and Green (2012)



The Importance of Training

Being a good supervisor is an active process. You have to train, measure, evaluate, and troubleshoot supervisee/trainee behavior constantly.

In the same way that we used evidence-based practices with our clients, we must also use evidence-based practices in how we train and manage staff behavior. This includes being conceptually systematic in how we design instruction for staff.

Evidence-Based Supervision Protocol

1. Identify desired client outcomes
2. Specify what staff must do to help clients reach those outcomes
3. Train staff in the skills specified in step 2
4. Monitor staff performance
5. Support proficient staff performance
6. Correct non-proficient staff performance
7. Continuously evaluate staff performance and client outcome attainment

Supervision – Training

Mager and Pipe (1987)

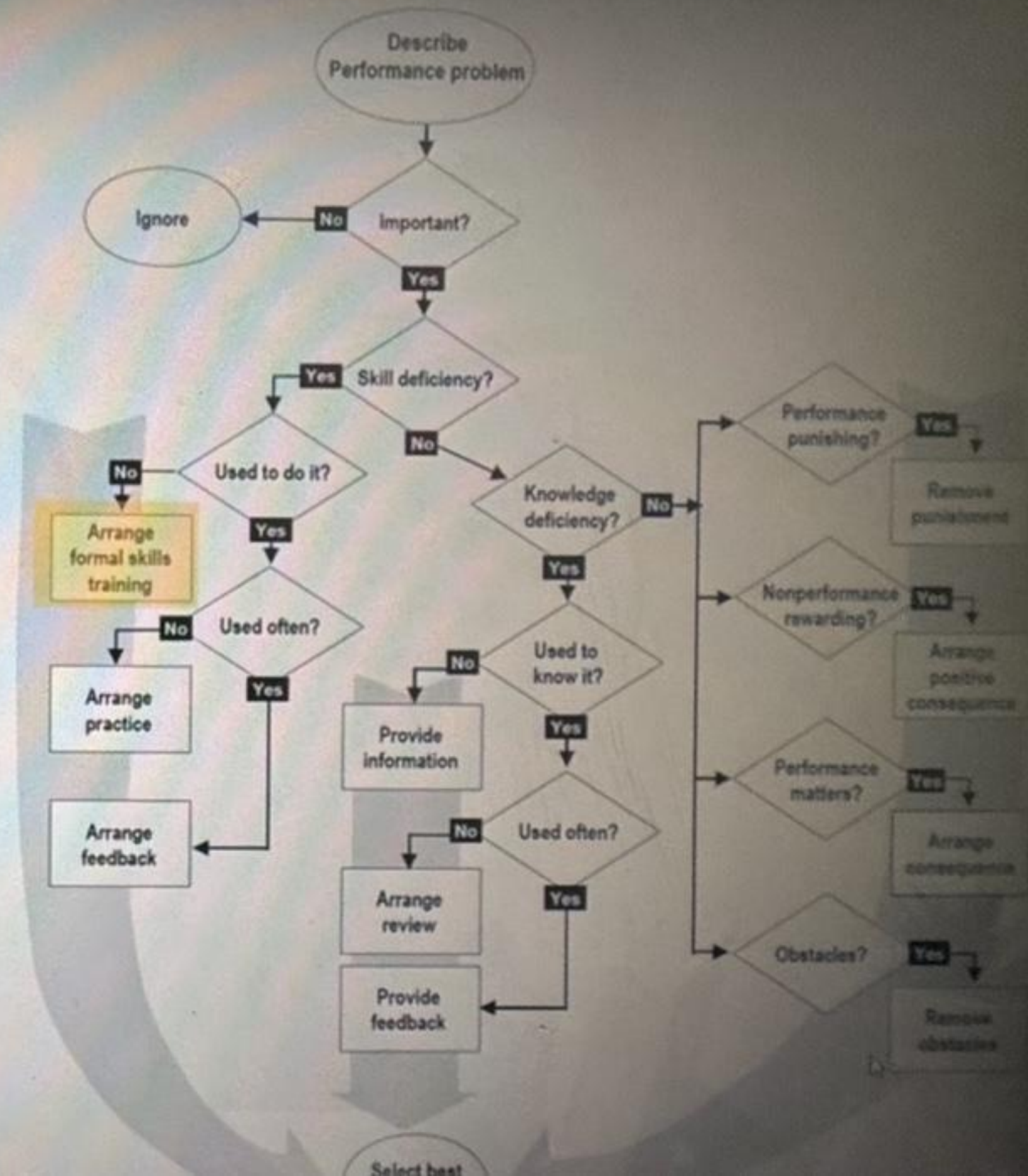
To Train, or Not to Train?

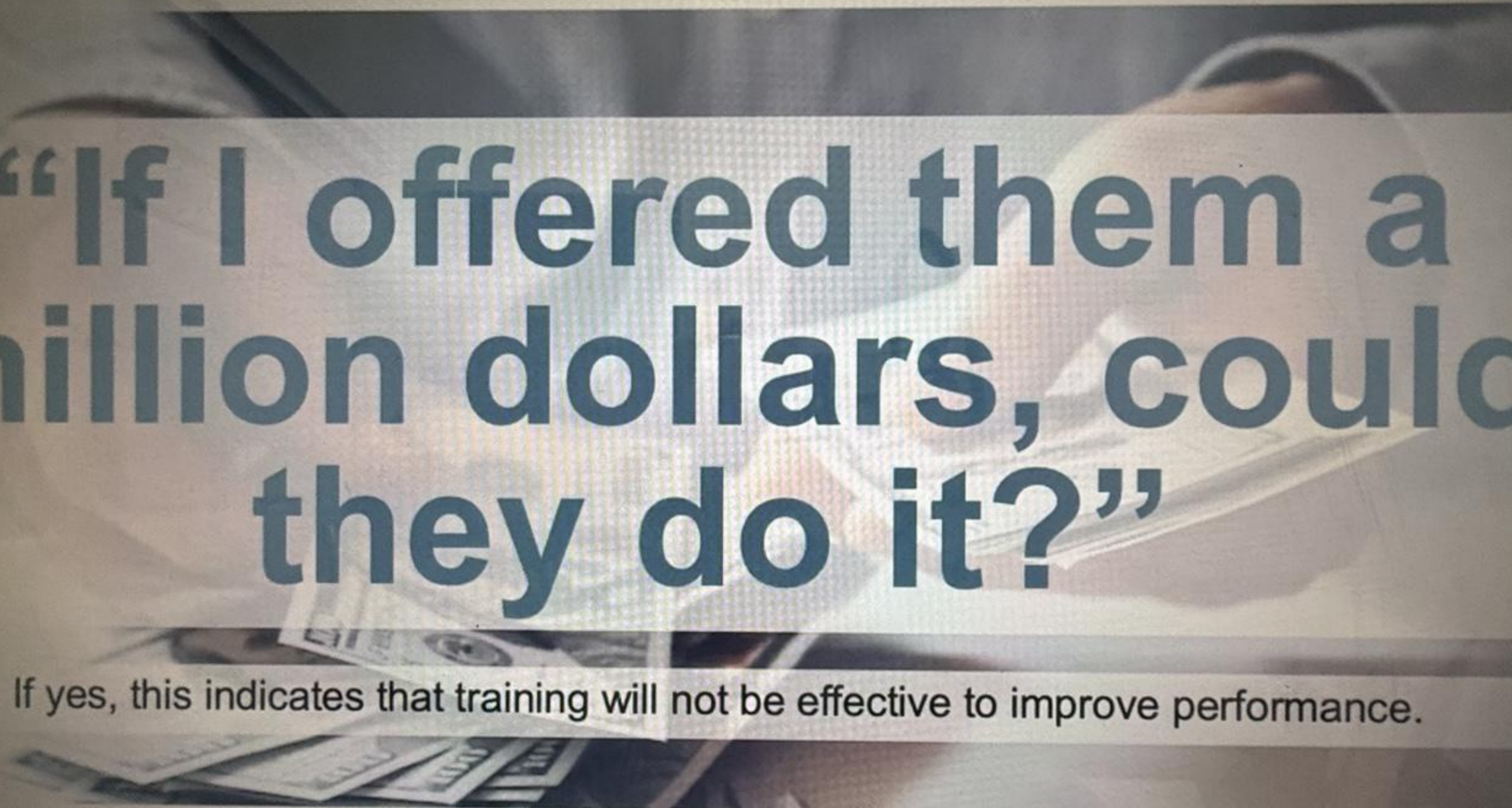
In Analyzing Human Performance Problems, Mager and Pipe provide a decision flowchart to determine potential behavioral interventions to put in place when a performer is struggling.

While we will not expand upon the entire decision-making process in this lesson, Mager and Pipe determined that only under very limited circumstances was formal skill training a recommended intervention:

- The skill is important
- A skill deficiency is the issue (rather than information alone or motivation)
- And that the performer had not performed the skill previously

If these conditions are not in place, skill training is unlikely to be effective to improve performance.



A person wearing a white lab coat is shown from the chest up, holding a large stack of US dollar bills. The person's hands are visible, and the bills are fanned out. The background is a plain, light-colored wall.

“If I offered them a million dollars, could they do it?”

If yes, this indicates that training will not be effective to improve performance.

Wine (2018)

Training as an Intervention

- The most expensive, intrusive, and time-consuming antecedent intervention
- Intention is to fully instruct employees on how to complete their required work tasks
- It is a necessary antecedent intervention for new employees, but not sufficient to maintain behavior over time
- Once initial training has been completed, consider carefully whether it is warranted as an ongoing intervention for behavior deficits

Checking in:

Which of the following statements is true?

- a. Training is an effective default intervention when staff are struggling to perform
- b. Training is an effective strategy to help behavior maintain over time.
- c. Training is effective under conditions when the learner has never performed the skill before.
- d. Training is inexpensive and simple, which makes it an efficient strategy for resolving performance issues.

Which of the following statements is true?

Training is an effective default intervention when staff are struggling to perform.

Training is an effective strategy to help behavior maintain over time.

Training is effective under conditions when the learner has never performed the skill before.

Training is inexpensive and simple, which makes it an efficient strategy for resolving performance issues.

Who is the Learner?

We have all been in trainings or presentations in which the information being presented is more about the person presenting than it is about the learners.

Designing effective training requires understanding who your learners are, what knowledge they already have, what their job expectations are, what problems they might face on the job, and the benefits of the training to them.

Focus on the learner.

Example:

Paul, a school-based BCBA, is designing a training for teachers on practical ABA applied in classrooms. He starts by outlining the content he wants to share in a logical sequence and verifies the information for accuracy. He puts together a PowerPoint slide deck that clarifies how to read a behavioral assessment for a student and describes to teachers how the assessment process works. Paul rehearses the lecture to ensure he appears credible and prepares to answer questions related to the assessment process.

During the training, the teachers appear disinterested and, upon leaving the training, report that, while the information was interesting, they didn't understand how to apply it.

Example:

Paul, a school-based BCBA, is designing a training for teachers on practical ABA applied in classrooms. He starts by outlining the content he wants to share in a logical sequence and verifies the information for accuracy. He puts together a PowerPoint slide deck that clarifies how to read a behavioral assessment for a student and describes to teachers how the assessment process works. Paul rehearses the lecture to ensure he appears credible and prepares to answer questions related to the assessment process.

During the training, the teachers appear disinterested and, upon leaving the training, report that, while the information was interesting, they didn't understand how to apply it.

What could Paul have done differently?

Example:

When Paul is asked to run the same training again, he first reviews how teachers are expected to use the assessment information and their job expectations related to the assessment process. He finds out what the teachers' current backgrounds related to ABA are, and what common challenges they are facing related to behavioral issues in the classroom. With this information, he creates realistic scenarios and tools to help them use the assessment information, and provides a list of benefits for the teachers that result from using the assessment information.

This time, the teachers are attentive throughout and engage with Paul during the presentation. Upon leaving the training, they report that they enjoyed the training and feel confident and motivated to use the information in their classrooms.

Garza, et al. (2018)

Conducting a Job Model

Discussed at length when establishing measurement and evaluation systems, a job model is also a critical tool when designing trainings.

For each job role, you should identify and prioritize the skills that they need to be successful, and design your training with the job model in mind.

In the supervision process, you will also want to tie these job requirements to specific task list items, which will allow the learners to learn about and apply these skills in their work.

Appendix A

Example of a Job Model

Position: Graduate Therapist

Supervisor: KS

Job Mission/Purpose: To provide clinical services to adults and children with developmental disabilities and develop professional skills for providing effective and ethical treatment.

Job Responsibility/Performance	BACB Skills Required
<p>1. Functional Behavior Assessment</p> <ul style="list-style-type: none"> a. Informant Assessment b. Direct Observation Assessment c. Functional Analysis d. Background Probability Data Collection 	<p>Section II</p> <p>Identification of the Problem</p> <ul style="list-style-type: none"> G-01 Review records and available data at the outset of the case. G-02 Consider biological/medical variables that may be affecting the client. G-03 Conduct a preliminary assessment of the client in order to identify the referral problem. G-04 Explain behavioral concepts using nontechnical language. G-06 Provide behavior-analytic services in collaboration with others who support and/or provide services to one's clients. G-07 Practice within one's limits of professional competence in applied behavior analysis, and obtain consultation, supervision, and training, or make referrals as necessary. G-08 Identify and make environmental changes that reduce the need for behavior analysis services. <p>Assessment</p> <ul style="list-style-type: none"> I-01 Define behavior in observable and measurable terms. I-02 Define environmental variables in observable and measurable terms. I-03 Design and implement individualized behavioral assessment procedures. I-07 Design and conduct preference assessments to identify putative reinforcers.

Learning Objectives

Behavioral learning objectives are the foundation for effective instruction and testing.

In order to design effective training and to assess whether the training was effective, we must know what learners must be able to do differently after the training, under what conditions, and how well.

Understanding who the learners are and what behavior they need to be successful in their role is the foundation of training, and writing out the learning objectives before developing the training requires the instructional designer to focus on the learners' needs.

Robert Mager has been the authority on writing effective learning objectives for decades, and his book Preparing Instructional Objectives is highly recommended for new instructional designers.

To provide you a brief introduction to his method of creating objectives, we will share three elements of high-quality behavioral learning objectives: performance, criteria, and conditions.

Supervision – Training

Mager (1997)



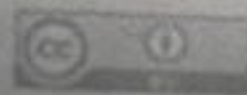
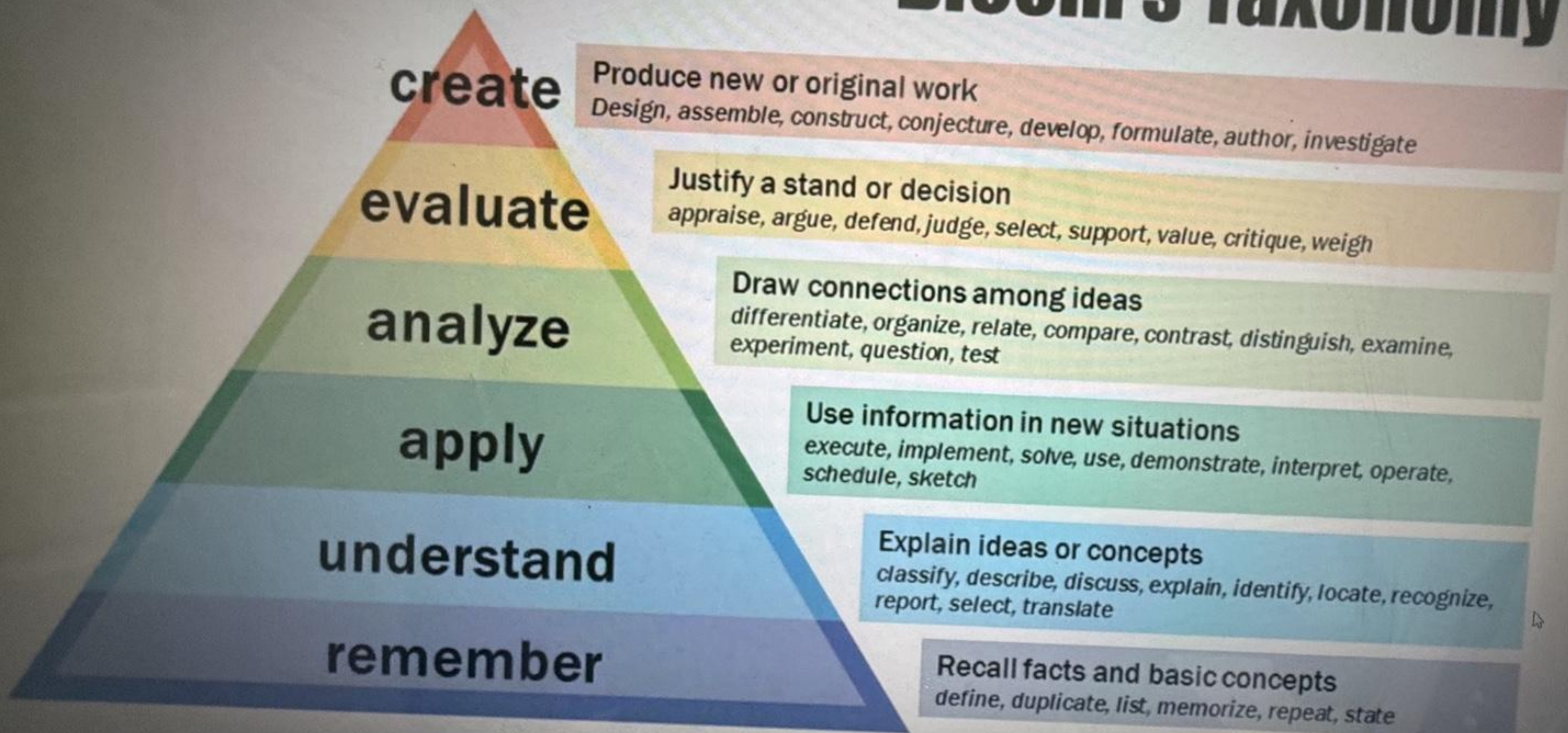
Performance

The objective **must** specify “what learners must be able to **DO** or **PERFORM** when they demonstrate mastery of an objective.”

You won't be able to test for mastery unless you write objectives that start with a measurable action verb.

Avoid verbs like “know” or “understand” – how do we know **THEY** know?

Bloom's Taxonomy



Supervision – Training

Mager (1997)

Biagi



Performance

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Conditions

Are there any conditions under which the staff member must perform?

What can they use (or not use) during the performance?

This is only necessary if it makes measurement more clear.

Example: *Using sample data*, the learner will be able to create a graph in Excel.

Criteria

How well must they be able to do the task?

It is not always practical to include a criteria, but it may increase clarity around the objective.

Example: The learner will identify the verbal operant correctly in *9 out of 10 trials*.

Checking in:

Which of the following is an appropriate learning objective?

After this training, the learner will be able to:

- a. Understand the importance of clear feedback to trainees
- b. Know an evidence-based procedure for giving feedback
- c. Appreciate the role feedback delivery in the supervision process
- d. Given a scenario, deliver clear, objective, and actionable feedback to a trainee

Checking in:

Which of the following could replace this non-behavioral objective?

After this training, learners will be able to... understand their client's behavior plan.

- a. From a list of potential actions, select the appropriate response to a target behavior, as described in their client's behavior plan
- b. Describe the process of prompting mands to mitigate target behaviors, as written in their client's behavior plan
- c. Demonstrate the block-and-redirect procedure, as described in their client's behavior plan
- d. All of these could replace this objective

Consider:

Collecting Baseline Data

Once you have identified the ultimate objectives of the training, you will want to strongly consider collecting baseline on how learners currently perform on those objectives.

Consider:

- Having staff try to engage in the terminal behavior and collect data on current proficiency
- Providing a pre-test for knowledge-based items
- Collect social validity data on their current comfort and confidence in the skills

If a learner is proficient prior to training, this can save time and allow them to “test out” of certain parts of the training process.

Additionally, when we determine the effectiveness of training, we will then have data to compare after the training is completed.



Training Formats



**Instructor-led
Lecture**



eLearning



Simulations



**Job Shadowing/
Cross Training**



Case Studies



Mentorship



**Discussions &
Social Learning**



Roleplay



**On-The-Job
Training**

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Additional Considerations for Training Formats (Reid, Parsons, & Green, 2021)



Individual

- More individualized to the needs of the learner
- Less formal
- Easier to measure performance in vivo
- Can be trained on-the-job, in their typical routine



Group

- More efficient
- More formal and requires more preparation
- Tend to become lectures, rather than practice opportunities

Supervision – Training

Consider:

Digital Tools

Computer-based training, or CBT, can be a highly effective and efficient strategy for providing training.

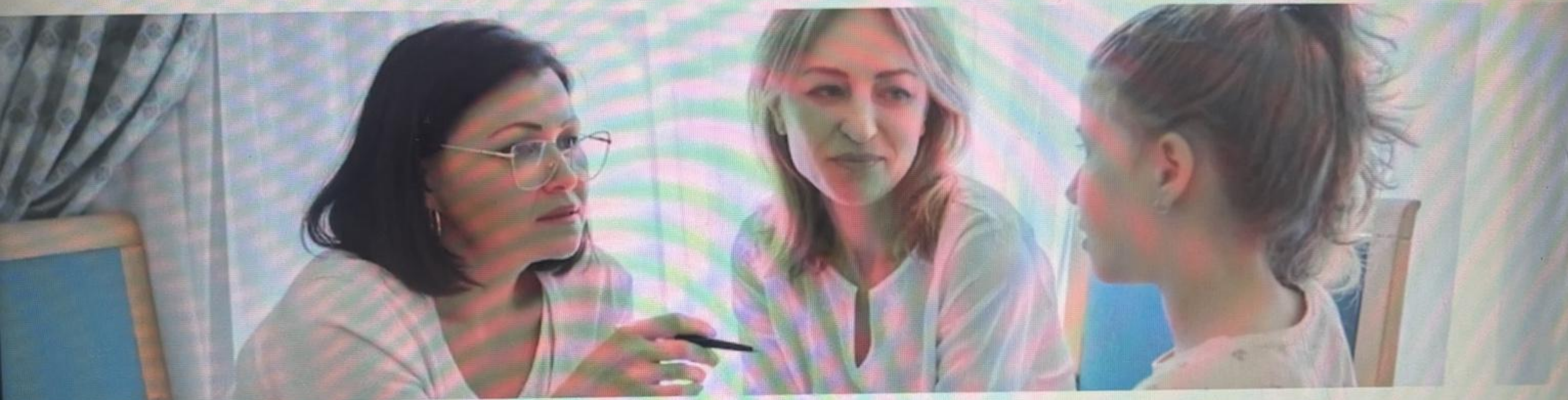
Many technologies exist for:

- Recording instruction and video models (ex. Zoom, Camtasia) to increase consistency
- Integrating active responding (ex. Kahoot, PollEverywhere)
- Hosting and tracking learner progress
 - A learning management system (LMS) is often necessary to handle lots of learners (ex. Thinkific, Teachable, Moodle, Marble.io, Canvas)

Checking in:

Which of the following is NOT a benefit of collecting baseline on our learning objectives?

- a. **Collecting baseline speeds up the training development process**
- b. We can focus on skills that the learner does not yet have, rather than those they can perform proficiently
- c. We can evaluate how effective the training is after the process is complete
- d. All of these are benefits of collecting baseline data

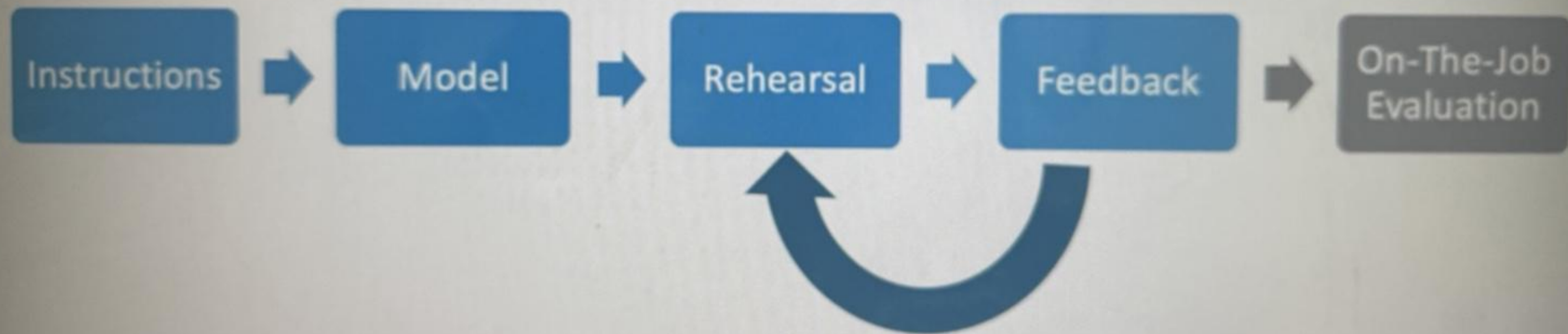


Behavioral Skills Training (BST)

Behavioral skills training, or BST, is the “gold standard” of training methods in applied behavioral science. Ward-Horner and Sturmey (2012) describe BST as “an effective training package that consists of instructions, modeling, rehearsal and feedback”.

Using BST methodology, trainers combine independent training components, including: (1) written and verbal instructions with clear objectives, (2) modeling of desired performance, (3) opportunities to practice and receive objective feedback, and (4) in situ evaluation of performance to ensure generalization of skills to the job site.

BST – In short...



Repeat until criteria is met

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Basic Behavioral Skills Training Checklist

Provided as a supplemental tool and task analysis as you design your trainings as a supervisor.

We will review each section of the BST training process during this lesson, and you will be able to use this tool to self-monitor, to collect feedback from supervisees/trainees, or to have someone else collect data on your training behaviors as well.

Note: this list isn't exhaustive – training design is incredibly nuanced and complex, but it will provide some basic guidance.

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Biagi (2019)

Basic Behavioral Skills Training Checklist

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Note: this list isn't exhaustive – training design is incredibly nuanced and complex, but it will provide some basic guidance.

Instruction		Comments:
Trainer describes the skill to be performed.		
Description of the skill uses only language appropriate for the trainee's previous competency with the topic.		
Trainer provides a rationale for why performing the skill accurately is important, using perspectives that are important to the trainee.		
When possible, written documentation or diagrams of the skill are provided to supplement instruction.		
Trainer stops and checks for understanding and answers any trainee questions fully.		
Model		Comments:
Before modelling, the trainer positions the trainee where each step can be clearly observed without obstruction.		
Trainer is able to demonstrate each step of the task to 100% accuracy.		
Steps of the task are completed slow enough for a trainee to identify each action during the first demonstration.		
Trainer pauses on a VR3 schedule and checks with the trainee for whether they require a step to be repeated.		
After demonstrating the task slowly, the trainer completes the task at regular speed to combine all steps.		
Trainer pauses and checks with the trainee for whether they require additional observation before moving into the rehearsal stage.		
Rehearsal		Comments:
Trainer prompts the trainee to engage in the skill taught.		
Trainer collects data on trainee performance of the skill.		
Trainer continues rehearsal/feedback loop until a pre-specified performance criteria is met (mastery).		
Trainer continues rehearsal/feedback loop until a pre-specified latency and duration criteria is met (fluency, if necessary).		
Feedback		Comments:
Trainer waits until the trainee has completed their rehearsal trial before providing feedback.		
Feedback provided is behavioral, objective, and specific.		
Trainer offers to re-model missed steps for the trainee.		
Positive feedback is included to help shape the terminal behavior.		
Trainer checks for understanding and answers any trainee questions fully before prompting another rehearsal trial.		



1. Instruction

This step in BST involves delivery of instructions in both written (e.g., a job aid or task analysis) and vocal (e.g., lecture) format. Instructions specify tools or materials necessary to engage in the skill, and conditions under which performance is expected. **Remember your objectives and audience!**

Information is presented in sequential steps, supplemented by diagrams or process maps, to increase the clarity and effectiveness of the training method (Graff & Karsten, 2012). Additionally, explaining the rationale behind desired performance (i.e., the impact of high performance vs. low performance) promotes sustainability of the behavior post-training.

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LeBlanc, Sellers, & Ala'i (2020)

The Role of “Why” in Training

When training a skill, a trainer should not only directly describe the skill to be taught, but should also discuss why the skill they are teaching is important during the instruction phase.

The trainer should discuss how the learner and their clients will benefit from the skill and the outcomes of performing well, in order to increase the EO for maintaining the skills taught in the future.

In the supervision context, this is often a great opportunity to integrate discussions of ethics, cultural responsiveness, evidence-based practice, safety, and developing therapeutic relationships.

Supervision – Training

Reid, Parsons, & Green (2021)

Avoiding “Death-By-Powerpoint” in BST

For optimal effectiveness of BST, the focus of a BST training session should be the learners observing and practicing the skills being taught, rather than passively listening to a lecture-based format.

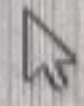
They, and many others, advise trainers to adopt a rule of no more than 15 to 20 minutes of lecture between demonstration or practice opportunities.

“Active, Meaningful Practice”

To avoid “Death-by Powerpoint”, integrating active, meaningful practice during instruction is recommended for the BST process.

“Active” practice requires overt responding that is measurable, and “meaningful” requires the activities to be related to the learning objectives.

While requiring some kind of interactivity, like clicking a “Next” button, is technically overt and measurable responding, but it is not “meaningful” or related to the objectives.

These types of responses don’t demonstrate any skill or knowledge acquisition. 

Active Student Responding

Active Student Responding, or ASRs, are when trainers provide questions or instructions that require learners to engage in some kind of meaningful response during instruction.

This allows for learners to

- Actively participate in the instruction,
- Demonstrate the acquisition of new information, and
- Provide feedback to the instructor to influence training behavior and provide additional support or elaboration

These strategies include guided notes (not just copying text!), response cards/polls, chorale responding, group practice and discussion, and more.

Example:

Mei is providing training to a group of trainees pursuing their certification. She decides to teach about relational frame theory (RFT), and lectures on the reflexive, symmetrical, and transitive relationships that develop during verbal behavior training. She records a lecture about the topic for an hour, with a slide deck of examples. After assigning the training, she provides the trainees a test to see how well they understood the topic, and unfortunately finds that they could not answer questions or create novel examples.

Seeing the issue with her teaching strategy, Mei provides a follow-up training in-person, and has the trainees identify real life examples of each of the relationships throughout the lecture, and helps them rationalize the benefits of understanding RFT when teaching language.

Biagi (2019)

BST Evaluation Checklist

Instruction

Instruction

Trainer describes the skill to be performed.

Description of the skill uses only language appropriate for the trainee's previous competency with the topic.

Trainer provides a rationale for why performing the skill accurately is important, using perspectives that are important to the trainee.

When possible, written documentation or diagrams of the skill are provided to supplement instruction.

Trainer stops and checks for understanding and answers any trainee questions fully.

Checking in:

When training about preference assessments to new technicians, the trainer mentions that re-running a preference assessment allows for an easier session, because clients will continue to be motivated when reinforcers have been identified. This is an example of:

- a. Active student responding
- b. Using behavioral objectives
- c. **Providing a rationale**
- d. Modelling desired behavior

Checking in:

This question, and all of the other check-ins we've done, are part of a set of tools called:

- a. Using behavioral objectives
- b. **Active student responding**
- c. Behavioral skills training
- d. Being annoying by forcing participation when I just want to scroll on my phone and not really gain any additional knowledge or skills

Which of the following is an example of active, meaningful practice?

- a. Clicking the "next" button to progress the video
- b. Copying words off a Powerpoint into notes
- c. **Reading scenarios and responding with a recommended action**
- d. Writing down code words in order to log attendance

2. Modelling

Modeling focuses on demonstrating target performance for learners in relevant contexts.

Traditional BST includes live models and trained confederates to assist with demonstrations, using carefully planned and standardized scripts for consistency. With the rise of new technology, however, more and more practitioners opt to use video models to increase control and reduce errors by the trainers.

A classic example of a well-scripted, live model is when the flight attendants demonstrate the use of the seatbelts on an airplane.

Types of Models

In Vivo – Modelling the skill live, typically with a confederate

- Requires the model to perform at 100% accuracy each time
- Takes additional time to model and remodel

Video – Pre-recording a proficient model and requiring learners to watch the video

- Allow for standardization and consistency (no errors!)
- Easily repeatable to allow learners to start and stop the recording as needed
- Allows for annotation with on screen text and narration
- Easy to distribute across learners
- Requires up-front resources and technology skills



Example:

Dia, a trainee working towards their certification, is in charge of onboarding new technicians at their clinic. Dia struggles with running error correction procedures themselves, and often makes errors when attempting to show new technicians how to run the procedure. The technicians report frustrations with not knowing which live models were correct, and which ones included Dia's errors, as Dia stops to correct themselves frequently.

Dia decides to ask an experienced analyst to video record the process with them, including multiple examples and demonstrating how to recover when the error correction process does not go perfectly.

This helps Dia provide consistent models for their learners, and also teaches Dia learn how to run the procedure better as well.

Biagi (2019)

BST Evaluation Checklist

Model

Model

Before modelling, the trainer positions the trainee where each step can be clearly observed without obstruction.

Trainer is able to demonstrate each step of the task to 100% accuracy.

Steps of the task are completed slow enough for a trainee to identify each action during the first demonstration.

Trainer pauses on a VR3 schedule and checks with the trainee for whether they require a step to be repeated.

After demonstrating the task slowly, the trainer completes the task at regular speed to combine all steps.

Trainer pauses and checks with the trainee for whether they require additional observation before moving into the rehearsal stage.

Checking in:

An advantage of using pre-recorded video models in BST includes:

- a. The trainer only needing to perform the skill being taught perfectly for the video
- b. Learners can repeatedly rewatch and pause the video model
- c. Unlimited learners can benefit from the video model (instead of only those in the room)
- d. **All of these**

3. Rehearsal

Rehearsal involves learners imitating performance observed during the modeling phase of the training procedure, with assistance of a confederate if needed, or by switching roles with fellow learners in a group setting.

The trainer collects objective data on the accuracy of skill performance as learners demonstrate the skills. Rehearsal requires a priori creation of a task analysis detailing each step to be performed (e.g., based on material presented during the instruction phase).

Supervision – Training

Bucklin, Brown, and Conard (2018)

Context-Based Learning

Learning in context that closely approximates the learner's job has been shown to produce better retention than learning outside the context.

Three main contextual factors should be considered when designing rehearsal opportunities:

1. **Physical Environment** – Practice should occur in the appropriate physical environment, including using the tools, processes, and resources that are the same or very similar to the ones used on the job.
2. **Behavioral Requirements** - The skills required during the training practice are those to be performed on-the-job, and the behavioral consequences replicate what those learners will receive on-the-job.
3. **Emotional Context** – Replicating the emotional context includes rehearsing not only ideal situations, but ones in which clients or staff may become upset, angry, or otherwise react emotionally.

Supervision – Training

Bucklin, Brown, and Conard (2018)

Context-Based Learning: Benefits

When we replicate the job context, learners have the ability to practice and master the skills they're required to apply in real life, which achieves the following outcomes:

- Increases the likelihood of generalization to the real work context
- Learners contact the natural reinforcers (or lack thereof), and cannot pass the training until the behavioral requirements are met
- Learners practice handling the emotional side of their job tasks, so they will not be distracted in the real work context, and will not engage in non-productive fight/flight responses that often accompany difficult or tense situations



When designing rehearsal and practice opportunities, consider:

Mastery or Fluency?

What is the Goal?

Mastery

- Performing a skill to a predefined standard
- Often includes an accuracy measure over a specific number of trials
- Example: The learner will identify the correct verbal operant demonstrated in a scenario in 9 out of 10 trials
- Mastery does not include a time component



Fluency

- Performing quickly, accurately, and without hesitation (Binder, 1988)
- Requires more practice and repetition during rehearsal
- This necessitates the addition of timing the responses during rehearsal, not just measuring accuracy
- Example: The learner will respond to the target behavior with the indicated action within 5 seconds
- Not all skills require fluency!

This impacts how much rehearsal time needs to be programmed into your training process!

BST Evaluation Checklist

Rehearsal

Rehearsal

Trainer prompts the trainee to engage in the skill taught.

Trainer collects data on trainee performance of the skill.

Trainer continues rehearsal/feedback loop until a pre-specified performance criteria is met (mastery).

Trainer continues rehearsal/feedback loop until a pre-specified latency and duration criteria is met (fluency, if necessary).

Checking in:

During a workshop on coaching caregivers, the trainer roleplays as a caregiver who is upset with the idea of fading services. They raise their voice and question the learner's competency during the roleplay. This is creating the context of:

- a. Physical environment
- b. Behavioral requirements
- c. Emotional context

A trainee is practicing writing behavior assessment reports, and is frequently referencing the checklists provided during training. The due date on turning these reports in is flexible. During rehearsal, the trainer should train this skill to:

- a. Fluency
- b. Mastery

Checking in:

A trainee is learning how to create mand opportunities for clients in the natural environment. The environment is constantly changing, and chances for prompting mands occur randomly and quickly disappear. During rehearsal, the trainer should train this skill to:

- a. Fluency
- b. Mastery

4. Feedback

Feedback in BST includes providing objective and detailed evaluations of performance to each learner, which allows the person to improve performance on incorrect steps, or to maintain performance on steps on which they excelled.

Positive and constructive feedback includes descriptive and focused assessments of performance to be of greatest value to the learner. Constructive feedback may also include the trainer re-modeling desired behavior.

Supervision – Training

Stone and Heen (2014)

“Coaching Feedback”

The feedback delivered during training is often different than that delivered throughout employment.

Stone and Heen (2014) refer to this type of feedback as “coaching” feedback, which serves a function to establish new repertoires, rather than maintain or improve them over time.

Some recommendations made for other functions of feedback may not apply here (for example, separating positive and constructive the “4:1 Ratio”, etc.).

Feedback Tips During Training

- Provide feedback immediately after each rehearsal opportunity
 - Performers often prefer to complete the chain of behavior before receiving feedback, rather than being disrupted in the middle of the chain – when in doubt, ask what they would prefer
- Ensure to identify steps performed correctly, and those that need improvement
 - Reinforce what is being done well!
 - Offer to remodel steps as needed
- Reference the data collected (because you collected data during rehearsal, remember?)
- Vocal verbal feedback is best during BST
- Remember to be objective, descriptive, and specific!

Biagi (2019)

BST Evaluation Checklist

Feedback

Feedback

Trainer waits until the trainee has completed their rehearsal trial before providing feedback.

Feedback provided is behavioral, objective, and specific.

Trainer offers to re-model missed steps for the trainee.

Positive feedback is included to help shape the terminal behavior.

Trainer checks for understanding and answers any trainee questions fully before prompting another rehearsal trial.

Which of the following is an example of high-quality feedback delivery during BST?

- a. "That was really great!"
- b. "Let's try that again, I think you can do better this time."
- c. **"You got all the steps for running the trial itself perfectly. This time, remember to wait 3 seconds before moving into error correction."**
- d. "Good enough, you'll get it after some practice with your client."

On-The-Job Evaluation

The final, and most frequently forgotten, phase of BST includes on-the-job assessment or in situ evaluation by a trainer. During this phase, the learner performs the trained skill in the environment where performance is expected, with real consumers or clients.

The evaluation is conducted using the task analysis from the instruction phase, and the learner is required to meet designated criteria to perform the skills independently. Learners should be informed that they will be evaluated in situ prior to the final on-the-job evaluation phase.

Test the Objectives

Before moving a learner completely out of their initial training, we must go back and test the objectives in the context in which the skill should be performed.

If you do not plan on testing an objective, it should not be considered an objective in the first place!

Use the task analyses, checklists, and tools that you included in your training to evaluate the skills with real clients, and share the data and feedback with the learner.

If the learner continues to struggle, you may want to refer back to Mager's *Analyzing Human Performance Problems* or another diagnostic tool to identify any other barriers that may be present.

After they meet the criteria, these skills can be moved into generalization and maintenance, and can be evaluated through spot checking and performance monitoring moving forward.

Example:

Ronald is an early career BCBA who provides trainings to caregivers. He has documented clear objectives for his caregiver coaching sessions, and always evaluates (through data collection) whether a caregiver is ready to move into the next objective by prompting them to demonstrate the skills taught with their child.

Ronald notices with one caregiver that, no matter how hard he tries, the caregiver cannot seem to identify when to run the program that Ronald has taught him. Ronald chats with the caregiver and determines that additional training is not required, but adding a reminder in the environment for the caregiver provides the nudge needed to get him to run the program when needed.

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With the reminder intervention in place, the caregiver hits the performance criteria, and Ronald fades the support as the data indicate.

BST Evaluation Checklist

On-The-Job Evaluation

In-Situ Observation

After criteria are met, the Trainer provides information about when they will follow up with the trainee to observe the behavior in the natural working environment.

In order to conduct on-the-job evaluations of the skills taught to the learner, the trainer must have established:

- a. Measurable learning objectives
- b. Behavioral evaluation tools (task analyses, checklists, etc.)
- c. A process for determining barriers outside of knowledge/skill issues
- d. The criteria for moving into maintenance
- e. **All of these**

Evaluating the Effectiveness of Training

Was the Training Effective?

As discussed throughout this lesson, it is important that we assess that the learners have obtained the measurable and observable skills as indicated in the objectives we created when we designed the training.

However, there are a number of other variables to evaluate in order to evaluate the quality of our training programs beyond individual skill acquisition, and putting these measurement systems in place can greatly benefit everyone involved – the learners, their clients, the trainer, and the organizations in which they operate.

Kirkpatrick's Four Levels of Training Evaluation are a great foundation for determining the effectiveness of our training processes.

Supervision – Training

Kirkpatrick & Kirkpatrick (2016)

Why Evaluate Training?

In addition to being an ethical and professional obligation and a supervisor and behavior analyst, there are a number of reasons why behavior analysts (and their businesses) benefit from evaluating the effectiveness of their training processes.

We evaluate training:

1. To collect data on outcomes of training and help to justify the time and resources dedicated to training
2. To determine if the training itself was well-designed for the learners
3. To make evidence-based revisions to the training process to achieve better results on subsequent trainings
4. To ensure that the skills that we taught are **ACTUALLY** the skills that contribute to the ultimate business outcomes

Kirkpatrick & Kirkpatrick (2016)



Reaction

The degree to which learners find the training favorable, engaging and relevant to their jobs.

Learning

The degree to which participants acquire the intended knowledge, skills, attitude, confidence and commitment based on their participation in the training.

Behavior

The degree to which participants apply what they learned during training when they are back on the job.

Business Results

The degree to which targeted outcomes occur as a result of the training and the support and accountability package.

Evaluating Reaction

In behavior analytic terms, the Reaction Level closely related to the social validity of the training.

How much do participants enjoy the training? How useful are the skills and knowledge for them in their jobs?

Satisfaction is evaluated very frequently

- 80% for in person class training
- 58% in online contexts
- 100% for BACB® CEUs (Board requires it)

Engagement/active participation during training is evaluated FAR less

Relevance is seldom evaluated

How to evaluate:

Evaluating this level should be quick and efficient.

Use the guidelines around assessing social validity:

- **Before training** – Ask learners if the objectives are important to their goals and what they hope to achieve from the training
- **During training** – Collect data on participation (may include momentary time samples during activities, latency to responses for questions asked, etc.)
- **After training** – Surveys are very common, but post-training focus groups are great to ask specific questions about the training experience

Was there anything about your experience that interfered with your learning? If so, what?

What material did you find to be the most relevant to your job?

What material was a waste of time?

How could this program be improved?

Evaluating Learning

The Learning Level evaluates the acquisition of knowledge and skills *in the training context*.

Training should leave participants saying:

- Knowledge – I know it
- Skill – I can do it right now
- Attitude – I believe this will be worthwhile to do
- Confidence – I think I can do it on the job
- Commitment – I will do it on the job

If we have provided sufficient information, rationale, practice, and barrier removal, this should occur naturally as part of the BST process.

How to evaluate:

- Knowledge tests
- Discussions
- Individual and group activities
- Roleplays, demonstrations
- Simulations
- Presentations

Consider using this opportunity to check against your baseline data collection!

What are the major concepts that you learned during this session?

What is the importance of applying what you learned on the job?

How do you plan to apply what you learned when you get back to your job?

What is the first thing that you plan to apply from what you have learned today?

Evaluating Behavior

The Behavior Level is directly evaluated when we check for the generalization and maintenance of the skills taught to the real work environment.

This is not evaluated during roleplay or rehearsal (that's still part of the Learning Level).

In order to be successful, Kirkpatrick & Kirkpatrick identified 3 requirements:

1. Identification of the critical behaviors that must be performed to meet the goals of the job role and organization (done, behavior analysts!)
2. The "required drivers" of the behavior being present, such as systems, processes, reinforcement, feedback, etc.
3. The skills trained match the requirements of the work and have the opportunity to occur on-the-job

How to evaluate:

Requires post-training support (if the trainer is not also their supervisor) and clear operational definitions, expectations, and evaluations

- Work review checklists
- On the job observations
- Interviews
- Self-monitoring
- Dashboards
- Goal-setting
- Surveys
- Touch-bases

1 – Little or no application
2 – Mild degree of application
3 – Moderate degree of application
4 – Strong degree of application
5 – Very strong degree of application, and desire to help others do the same

<i>Insert behavioral objective #1</i>	1	2	3	4	5
<i>Insert behavioral objective #2</i>	1	2	3	4	5
<i>Insert behavioral objective #3</i>	1	2	3	4	5

Kirkpatrick & Kirkpatrick (2016)

Evaluating Business Results

Do employees who go through our training engage in behaviors that contribute to the mission of the organization and increase business results?

- Revenue, expense control, cash flow, productivity, regulatory compliance, customer satisfaction, staff satisfaction, increased clinical outcomes, etc.

The results evaluated for the Results Level should be broad and long-term – lagging indicators and mission alignment – rather than only focusing on the immediate behavior change.

How to evaluate:

INTERNAL	
Individual, team, departmental, and/or organizational outcomes	
Quality Quality ratings Errors KPI (key performance indicator) accomplishment	Cost Unit product line profitability cost Waste / scrap Inventory turn rate / cost Overhead costs
Volume / Production Production rate / output First-call customer service resolutions Completed projects / initiatives	Efficiency Average processing time Speed to proficiency Speed to market
Compliance Audit findings External audit findings Known incident reports	Employee Satisfaction Employee engagement Employee satisfaction Internal promotions Regrettable turnover Re-enlistment rate Employee job confidence Employee initiative
Safety Lost-time injuries "Close calls" Critical incidents	

Consider:

Blended Evaluation

Multiple levels of training evaluation can be measured at once using different methods, allowing us to increase the efficiency of evaluation.

However, Kirkpatrick and Kirkpatrick (2016) encourage the rampant use of self-report as a valid strategy for data collection – as behavior analysts, we understand the potential issues with self-report as a primary means of collecting data...

Ensure that you keep your behavior analyst "hat" on when determining the impact of your training by collecting direct observation and permanent product data to support your conclusions.

METHODS	EVALUATION LEVELS			
	1 Reaction	2 Learning	3 Behavior	4 Results
Survey, questionnaire, individual or group interview	✓	✓	✓	✓
Action plan monitoring, action learning		✓	✓	✓
Work review, skill observation, behavior observation, action learning		✓	✓	
Case study, knowledge test, knowledge check, presentation, teach back		✓		
Request for validation			✓	✓
Key business and HR metrics				✓

Checking in:

A few weeks after providing a training on caregiver interactions, Raul interviews caregivers to see if they were satisfied with the interactions they've had with staff over the last few weeks. This is evaluating:

- a. Reaction
- b. Learning
- c. Behavior
- d. **Results**

Checking in:

After her conference presentation, Keysha sends a survey to the attendees asking whether they enjoyed the training, if the environment was comfortable, and if the materials provided were high-quality. This is assessing:

- a. Reaction
- b. Learning
- c. Behavior

Checking in:

Deb follows up with each of her trainees after a workshop on contriving mand opportunities, and collects data on the number of opportunities that the trainees provided their clients to mand during a session. This is assessing:

- a. Reaction
- b. Learning
- c. **Behavior**
- d. Results

Checking in:

During a training, Deb takes the learners to the main clinic space and asks them to identify three mands that could be contrived with the materials in the clinic space. This is assessing:

- a. Reaction
- b. **Learning**
- c. Behavior
- d. Results

Checking in:

After training, Deb provides her learners a multiple choice test about the basic verbal operants. This is assessing:

- a. Reaction
- b. **Learning**
- c. Behavior
- d. Results

Understanding how to create and evaluate the effectiveness of training is an incredibly valuable skill for any professional, but is particularly significant for behavior analytic supervisors.

Although not indicated as an ongoing intervention, providing high-quality training can mitigate future performance issues. Using evidence-based training strategies, such as behavioral skills training (BST), we can develop effective training programs that learners enjoy, provide the right knowledge and skill practice opportunities, and that transfer to the real working environment seamlessly.