This training manual was developed by the North Dakota Center for Persons with Disabilities to be used by North Dakota community provider agencies participating in the Community Staff Training Project through Minot State University. Requests for use of this publication for any other purpose should be submitted to Minot State University, NDCPD, Community Staff Training Project, Box 36, Minot, ND 58707.

Suggested citations:


This version is an update of the module created by Mercer, M. (2006).

Production of this publication was supported by funding from:

North Dakota Department of Human Services, Disabilities Service Division
North Dakota Center for Persons with Disabilities/Minot State University

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Chapter 1: Provide Universal Support for Behavior

**Objectives:**
After completing this chapter, staff will be able to:

- Define the purpose of providing universal supports for behavior (USB).
- Identify five essential elements of universal support for behavior.
- Evaluate environments to determine if UBS is available.

**Review:** The term PBS is constantly evolving. A new definition created by Kincaid et al. is quoted below to help assure that this module is aligned with emerging definitions from the field.

*PBS is an approach to behavior support that includes an ongoing process of research-based assessment, intervention, and data-based decision making focused on building social and other functional competencies, creating supportive contexts, and preventing the occurrence of problem behaviors. PBS relies on strategies that are respectful of a person’s dignity and overall well-being and that are drawn primarily from behavioral, educational, and social sciences, although other evidence-based procedures may be incorporated. PBS may be applied within a multi-tiered framework at the level of the individual and at the level of larger systems (e.g., families, classrooms, schools, social service programs, and facilities).*


**1. Define Universal Support for Behavior**

Universal supports for behavior are the **positive cues, resources and opportunities that staff use to help people with intellectual or developmental disabilities (I/DD) to learn and practice positive behavior.** Universal supports are well . . . universal. That means that all staff are trained to make these supports consistently available in all environments and understand it is part of their job responsibility to teach appropriate social behavior. USB is the first level of intervention we use to decrease the need for challenging behavior. USB is not offered only at certain times or for certain people or when a behavior intervention plan is in place. Universal support for behavior is not delivered by some staff but not by others. USB must be freely available to most people with I/DD at home, at work and in the community if we want those individuals to succeed. If an agency or program does not provide universal support, the likelihood that people with disabilities will resort to using challenging behavior increases. USB contributes significantly to lifestyle enhancement (Lucyshyn, Dunlap & Freeman, 2014).
The use of universal behavioral support or UBS has been widely researched (Horner, Sugai, Todd, & Lewis-Palmer, 2005). Providing universal supports requires effective individual and team practice in proactively teaching appropriate social behavior. To accomplish this goal, each staff person must be able to identify the essential elements of USB. They must be able to recognize what each element looks like in different settings and how to successfully provide support to people with limited awareness or understanding of the “hidden” rules of social behavior. Finally, staff must be able to recognize if a specific action on their part is aligned with universal behavioral support and if not, how to adjust their behavior or obtain the needed resources to assure that these supports are consistently available to everyone supported, regardless of their intellectual, physical or sensory needs.

2. Identify Five Essential Elements of Universal Behavior Support

Element One: Provide information on behavior expectations. Give directions for success. Give examples of appropriate and inappropriate behavior so that individuals clearly understand the concept being taught. For example: The direction to “stop” is clearer than saying “no.”

Why is that important? People with I/DD will learn to meet some social/behavioral expectations incidentally through participation in typical activities. However, many of the social rules for behavior have been described as “hidden,” and people with I/DD may often need explicit instruction to recognize and remember what to do in complex situations. Instruction during the “teachable moment,” (NOT when people are upset) needs to be available to support people in learning to understand and predictably use appropriate behavior. In addition, no behavior plan, no matter how good it is, is likely to be able to cover every aspect of every day. DSPs need to be able to provide support for positive behavior when individuals do not yet have behavior plans and during circumstances not addressed in a specific plan. The use of USB also decreases the need for formal plans (which are expensive to put in place).

What does teaching appropriate social behavior in the moment that look like? The example below shows a typical situation in which information on behavioral expectations are not provided.

<table>
<thead>
<tr>
<th>Event: Job coach makes a suggestion and the worker with a disability says, “I don’t like that – stop pressuring me.”</th>
</tr>
</thead>
<tbody>
<tr>
<td>Why did that happen?</td>
</tr>
<tr>
<td>The worker may be repeating something they have heard</td>
</tr>
</tbody>
</table>
There are many strategies and resources that can be used in typical environments to teach appropriate social behavior. These strategies may need to be adapted to the unique learning and communication abilities of different people. Options include: using posters to make rules or boundaries visible to all (in an age appropriate way), rehearsal, social stories, video modeling, listing and reviewing acceptable behavior, what to do if... tips with lots of repetition and practice. Providing universal support in the form of teaching appropriate social behavior is an on-going requirement. It is unlikely that the social rules can be mentioned once and will automatically be internalized and consistently used. In a structured setting, rules can be reviewed frequently perhaps at the beginning of a shift. In a less structured situation (home or community) rules may need to be taught more individually with emphasis on using a teachable moment.

When deciding how best to teach acceptable social behavior we also use universal design for learning principles or UDL. This means that we think about the what, how and why networks in the person’s brain that we can help to activate by our instruction. We decide how to structure the teaching by asking ourselves these guiding questions.

A. How can I make it clear to this person what is expected and how to behave? How will this person get information not only about what is expected but about what to do to meet a social expectation? How can I access the recognition centers in their brain (visuals, sounds, touch) with information?

B. How can I help this person get enough practice to learn to how/when to use an appropriate
behavior (make sense of the information)? What can I do to access the strategic networks in their brain (e.g. if/then; key or analogy; same/different, visual schedule)?

C. How can I encourage the person to understand why they should keep using this behavior (motivation). How can I access the emotional centers in their brain (music, fun, sensation, humor, novelty and predictability)?

Element Two: Believe that all people can learn appropriate social behavior. Sometimes we may be tempted to think that if a person is not using words to communicate, they cannot learn complex behaviors. The scenario below shows how staff worked to communicate behavior expectations to a woman who did not speak or seem to understand much of what was happening during the day.

Susan is both blind and deaf and has a short attention span. She attempts activities for 1-2 minutes and then stops participating. She often begins to scream. Her screams are loud and disruptive to the other people receiving support. A screaming episode typically lasts ten minutes. Susan never screams at “break-time” when food and drink are available.

Susan’s team evaluated her work environment. They considered what they needed to do to share the idea that she would be expected to engage in activities without screaming. The staff identified activities in which Susan typically participated for a little longer (2 minutes vs 1 minute). They made certain that more of those types of activities were available to Susan throughout the day. They also completed a preference indicator checklist to see what sensations and situations she liked and found activities that incorporated those sensations.

Next the team gave Susan a container with 3 tennis balls. Each time a screaming episode ended, staff would assist Susan to remove one of the tennis balls. Every day, just before breaks (which were given every hour) Susan was assisted to reach into the container and if at least one ball was available, a break would take place as usual. If no tennis balls were in the can at break time, the break was eliminated for that hour. Over time, the team gradually increased the number of balls that must be present for a break to take place. Susan quickly reduced the number of screaming episodes.

This plan would not have worked if the staff had not provided universal supports to help assure that Susan’s immediate environment was rich in the number and type of preferred meaningful activities before screaming occurred (see shaded area). Susan also benefitted from staff’s belief that she could learn not to scream if there was a tangible way to help her connect not screaming with getting what she wanted.

Element Three: Intervene early. Remember that USB needs to be in place before negative behaviors occur. It is important that all staff be committed to examining a given environment and situation and evaluating to assure that universal support for positive behavior is consistently
provided before looking at a more restrictive type of intervention. Teaching appropriate social behavior should not wait until an outburst occurs or a behavior intervention plan is in place. Rather that step should be taken early and often to decrease the likelihood that challenging behaviors will need to be used at all.

**Element Four: Provide feedback on acceptable performance that is timely and understandable in the setting where the appropriate behavior is used.** Here are some examples: “Thanks for holding the door,” “I like your smile.” “Thanks for waiting without leaving the area.” You repeated what you said when the clerk didn’t understand. Thank you for helping the clerk get to know you.” Notice this kind of feedback is explicit. Terms such as ‘nice work’ or ‘good job’ are too vague to be helpful (instructional).

Using appropriate social behavior is fleeting. The behavior is demonstrated and the moment quickly passes and is easily forgotten. Picking out what was important in that situation is difficult. For that reason, **we also need to encourage effort often, and in a variety of ways.** In the paragraph above, you read examples of individual praise that can be given immediately after an appropriate behavior is used. Other strategies can include providing tokens that can be exchanged later for a tangible reward, certificates, employee of the month recognition and frequent social attention or opportunities for sensory breaks.

**Element Five: Evaluate periodically to see if Universal Support for Behavior is consistently provided in diverse settings.** We cannot determine if USB is in place unless we take an objective look at each setting in which the person is supported. We can then observe to see if universal support for behavior is consistently in place before behaviors occur. If the provision of USB is low or staff have not formed positive relationships with the person supported, the team can collaborate on creating a change plan for each environment. The chart below shows some ways to conduct such an assessment.

- Measure the number and quality of meaningful activities available to each person and the support provided to participate in those activities.
- Consider each person’s support needs for positive communication and determine if those supports are consistently in place.
- Measure the frequency in which positive social attention is provided to people supported across the shift by all personnel.
- Calculate the percentage of time in which support staff are interacting with people instead of doing paperwork, chatting with each other, out of the area or looking at a cell phone or tablet.
- Measure individual use of positive behaviors to see if people are learning.
Summary — The five essential elements of universal support for behavior include: a. Teach appropriate behavior; b. believe that all people can learn; c. intervene early before behaviors occur; d. provide feedback and encouragement for acceptable behavior; and e. evaluate to determine if universal support for acceptable social behavior is consistently available.
1. Universal supports are an array of positive ________, ____________ and ________________ that help us to teach and support positive behavior even when a behavior plan is not in place.

True or False

2. _____ Universal support for behavior is provided at the discretion of the DSP.
3. _____ Universal support must be consistently available in all environments.
4. _____ Only the supervisor is responsible for assuring that universal support is available.
5. _____ Some people with significant support needs cannot learn appropriate behavior.
6. _____ The number of staff on a shift is more important in providing universal support than the number of meaningful activities.
7. _____ Using the teachable moment is more important that intervening early.

8. Name the five essential elements of universal support for behavior.

   a.
   b.
   c.
   d.
   e.

9. Describe how access to meaningful activities helps people learn about appropriate social behavior.

10. Give two examples of “hidden” social expectations that a person you support might need to learn to meet.
Chapter 2: Structure the Environment Prior to Plan Implementation

Objectives: After completing this module, staff will be able to . . .

• Identify effective behavior intervention support practices
• Assure environmental safety for plan implementation
• Assure that people receive Active Support.
• Intervene in Setting Events to enhance quality of life.
• Maximize antecedent events to reduce challenging behavior.
• Set realistic expectations for behavior.
• Modify tasks or activities by making them easier or less aversive.

1. Identify Effective Behavior Intervention Support Practices.

Several environmental supports need to be in place at a robust level to support plan implementation. When these supports are not available or functioning well, the likelihood of plan failure is high. Most of these supports involve effective individual and team practice. These supports cannot suddenly be put in place because a new plan has been developed. They must be an on-going feature of service delivery with all staff taking responsibility for good practice. Key features include:

• Individual practice in providing Universal Support for Behavior (see chapter one).
• Individual practice in providing Active Support.
• Individual practice in observing and reporting behavior incidents in an objective manner.
• Team practice in effective communication, person-centered thinking, planning and problem-solving to support goal achievement and risk management.
• Team practice in obtaining needed resources and tools for service delivery.

Information on these practices is usually available to staff through new-staff orientation, module training, staff meetings and on-the-job coaching and training, agency policy and practice guidelines and special training on one or more components for both supervisors and direct support professionals.

2. Assure Environmental Safety: Assure that safety requirements for plan implementation are met. The general safety of the environment in providing support for behavior must also be determined. Safety impacts both universal support and formal behavior intervention programs. To assure that environmental safety is managed.

A. Provide Sufficient Staffing. The team must assure that there are enough DSPs present to consistently implement both preventative and responsive components of the plan to all of the participants. For example: In a Day Habilitation Program, all the staff must be released for a 30-minute lunch break over a period of 1-2 hours. During that time, the ratio of staff to each person
supported decreases making it difficult to provide USB. Strategies to address this problem can include assigning volunteers, part time staff or supervisory staff to provide extra support during this time period. In a residential program, some people may be supported to go out into the community while others stay home. During these times, the ratio of staff to each person supported may dip too low for USB to be provided. Strategies to address this may include: Use of community volunteers, taking out more than one person at a time, or shifting some activities to the night staff so that people can still be supported to engage in meaningful activities.

B. Train Staff on USB. Staff must be adequately trained to provide USB and know how to respond to a variety of typical situations that are likely to occur. This training requirement is not typically met by a general orientation or even by shadowing a specific person in their job. The employee may not pick out the hidden elements of USB from those experiences. Each employee must be specifically taught the five components of USB and be able to show a supervisor how they will provide USB on the job. Strategies to address that need include reviewing the specific components of USB before job shadowing begins and asking the employee and supervisor to capture when they occurred during a shift using a checklist.

C. Provide Adequate Supervision. This means that staff receive side-by-side observation, coaching, mentoring and support for their performance in providing USB by the staff trainer or supervisor. Focus on paperwork or organizing schedules, getting needed supplies etc. does not provide staff with the coaching, mentoring and support needed. Supervision requires supervisors to hang out with staff, make suggestions, and be available to discuss what happened or debrief in specific situations. Some staff have never been on a job before that requires this type of coaching or may have never received it. They may believe that the supervisor is pointing out errors or omissions and feel singled out for negative attention. This is especially likely if positive feedback is not provided to the DSP at a sufficient level and in a natural way. Problems can also occur if the supervisor appears to single out those employees who may be people of color or from a non-majority cultural background. Solutions for this include adequate training for supervisors in the form of videos, reading materials and workshops on how to give constructive feedback and on-the-job support to diverse employees.

D. Balance Staff Assignments. Staff have formal duties and distractions that may divert their attention from providing USB or implementing a formal intervention plan. The ratio of staff to people with I/DD as well as the nature of the additional care duties (e.g. giving medications, doing laundry, taking people into the community, fixing snacks or supper) must be aligned with the expectations for behavior intervention. Supervisors need to outline staff work schedules to include active support activities and to review that schedule and modify it as needed when new plans are implemented or when the level of social/behavioral support available (USB) needs to increase before challenging behaviors occur.

Staff are serving people within a social environment at home, at work and in the community.
if working one-to-one with a person, staff are connected to others via technology. The human need to connect, to socialize and relieve job-related stress by visiting, chatting or using a cell-phone to check in on family members can become a self-imposed “informal” assignment. Meeting this need must be balanced with actions that assure people continue to receive appropriate services.

**E. Limit Absenteeism and Manage Turnover.** If absenteeism results in pulling staff from one work area to cover in an area where they are unfamiliar, the intervention plan will be compromised. In addition, this can also lead to employee burnout. Agencies with high rates of absenteeism and turnover will need to address those challenges in a proactive manner. DSPs can bring problems to the attention of a supervisor and the staff can also work as a team to reduce turnover and manage the negative impact of shifting staff through cross-training.

3. **Provide Active Support:**

PBS emphasizes making a significant improvement in each person’s quality of life, not just trying to change a challenging behavior. In Chapter One, you learned that part of your job is to teach people to engage in appropriate behavior on an on-going basis – before challenging behaviors occur. This teaching process is called USB or Universal Support for Behavior. However, **USB** alone does not address all the setting-events that contributes to the quality of life experienced by the person with I/DD. Good practice indicates that we also re-examine the extent to which an individual receives **Active Support**.

Active support is defined as **supporting each person to be consistently and actively engaging in meaningful activities throughout the day, regardless of support needs.** Research indicates that active support is the best way to assure that people with I/DD experience quality of life (Bigby and Beadle-Brown, 2016 Mansell, 2007).

People naturally seek stimulation. If the environment is not providing opportunities for stimulation that are individualized to the unique needs of the person, that individual may resort to self-isolation, self-stimulation or other challenging behavior and seek their own entertainment. Just because an activity is sought out by the person with I/DD does not indicate that the activity is meaningful. It may just be repetitive or familiar. In addition, you may think that the activities on hand are “just what we do here” and not realize that more meaningful opportunities are and should be available. We can also fall into the habit of doing what is familiar and expedient.

**To have the greatest positive impact, an activity should:**

a. **Functional** – Bean activity that another person would have to do if this person didn’t. For example: washing the dishes, bringing in the mail, turning off the lights, doing laundry, using a
community service are functional. Doing the same puzzle made for children every day is not.

b. **Engaging** – provide multiple opportunities for choice and control and socialization.

c. **Age-appropriate** – Be one that is typically chosen or done by a same-aged adult with a similar cultural background. Gender differences should be considered as well although men and women are more likely to enjoy similar activities than they did in the past.

d. **Meaningful** – Provide multiple opportunities for growth, enjoyment, skill and belonging

e. **Individualized** – Be a match for the person’s strengths and interests.

Examples of meaningful activities are too numerous to list here but may include: cooking, decorating, working on a job in the community, engaging in sports, using machines or technology, participating in the arts, playing games, keeping a log or journal of life events, attending a cultural event, repairing broken items, building a structure, completing an age-appropriate puzzle, collecting, gardening, photography, participating in a marathon, using a Wii and many others. **The presence of significant cognitive, sensory or physical limitations should not prevent a person with I/DD from receiving Active Support.** Engagement in meaningful activities can be measured by observing changes in affect (smiling), awareness, focus initiative and participation.

**Non-meaningful activities** are those activities that have no social value or in which a person has **no meaningful way to participate.** Examples may include: Activities that are too abstract (not understood), confusing or not accessible. **People with I/DD may react by “zoning-out” or sitting unresponsively, napping or repetitively watching videos or computer games alone or engaging in repetitive movements (e.g. hand flapping, finger flicking, rocking, jumping squealing) or doing tasks or activities that are not functional (e.g. stapling pieces of paper together over and over). Repetitive behavior or activities can become a powerful part of someone’s personal agenda and may be preferred or tolerated by a person with I/DD because they are:**
Engagement in repetitive activities may indicate that people are not receiving Active Support. Most humans engage in repetitive behavior for short periods of time. This allows the person to process events, self-regulate or even to relax. Look around the next time you attend a meeting. See if you observe anyone who is tapping a pen, doodling, or repeatedly moving a hand, finger or foot. These kinds of repetitive activities are relatively harmless and may not prevent the person from listening or contributing. Repetitive activity becomes harmful if it goes on for longer than is typical, interferes with participation in meaningful activities or leads to social isolation.

Circumstances that invite repetitive behavior or non-meaningful activities can contribute to a decision to engage in challenging behavior and should be avoided. These may include:

| a. Long periods of waiting until the next meaningful event (a break time) occurs. |
| b. The absence of meaningful alternatives that are readily available and accessible. |
| c. Efforts to exercise choice or control are suppressed by others. |
| d. The environment has a lack of structure that supports initiative |
| e. The person self-isolates or spends excessive time engaging in repetitive behavior |
| f. Staff automatically do things to or for an individual instead of supporting engagement. |

4. Intervene in Setting Events

Setting events either set the stage for challenging or adaptive behavior to occur. You can increase the impact of various events on behavior by setting the stage for positive outcomes and working to prevent negative behavior. Just like you might use lights, sound effects, blocking and different actors in a play, to create the effect you want, the team tries to control setting events to set a person up for success. The goal is to:

- Maximize positive supports that decrease the likelihood of challenging behavior
- Prevent negative conditions that increase the likelihood of challenging behavior

The chart below outlines some of the strategies that help us intervene in setting events.

<table>
<thead>
<tr>
<th>Events</th>
<th>Supports</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physiological</td>
<td>Help the person get enough sleep, enjoy a nutritious diet, get a balance of exercise and breaks; manage pain or</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>Sensory</td>
<td>Help the person regulate sensory feedback from light, sound, touch, pressure and movement using visual, verbal touch or environmental cues.</td>
</tr>
<tr>
<td>-------------</td>
<td>-------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Social</td>
<td>Support that help the person manage in crowds (making a transition early) know what to expect and how to respond (rehearsal/social stories); and take turns or communicate or gain the attention of others appropriately.</td>
</tr>
<tr>
<td>Access</td>
<td>Support to get information, use technology, get in and out of chairs or vehicles, reach materials, participate physically in activities and predict what will happen next.</td>
</tr>
</tbody>
</table>

**Figure 3: Types of Setting Events. (Haarstad 2018)**

Staff take action to maximize setting events aligned with the plan when they:

a. **Support people to control and manage their own care routines** to the degree possible using graded assistance, visual schedules, and by not taking over the activity.

b. **Provide opportunities to do all or part of functional activities** as a way of learning new skills. Include new activities that may be challenging in a fun way (e.g. flipping a pancake, making coffee in a Keurig or special mug).

c. Bring meaning into tasks that are functional (mopping a floor) but not intrinsically meaningful to the person (e.g. using a remote control mop [https://sano.shop/en/products/detail/142304](https://sano.shop/en/products/detail/142304) or listening to music while mopping).

d. **Replace meaningless activities with engaging opportunities** to learn or contribute
   Example: A DSP replaced cut-out puzzles in a Day Habilitation program which were designed for young children with activities such as purchasing items by matching the item to a picture, delivering products to a local business and learning to fold an American flag.

e. Introduce **quality of life enhancements** so that the person supported can:
   - take part in person-centered planning in a meaningful way,
   - spend more time with significant people in their lives
   - experience many opportunities to engage throughout the day (active support)
   - be exposed to appropriate role models and have opportunities to gain social capitol or assume social roles at home and in the community (e.g. volunteering at church, putting up the flag or collecting the mail).
   - Mark, celebrate or make memories of significant life events
   - Have an individualized system to predict what will happen next.

In the scenario below, we have outlined an example of several ways that staff acted to control setting events for a person who aggressed toward others. Frank experienced a lot of tension due to his Autism. Not only was he sensitive to minute changes in his environment but he had...
difficulty reading non-verbal communication and putting his thoughts into words. Frank enjoyed attending sporting and cultural events as long as no one came near him. He had minimal contact with his family – seeing a brother once a year. If overwhelmed he sometimes attempted to hit or push the nearest person.

**Staff got together to talk about the quality of Frank’s life. They wanted to keep him engaged in community activities and brainstormed ideas that were a match for his needs. As a result of this discussion Frank was slowly introduced to the following: Going to the YMCA and going bowling once per week with only one other familiar person at times when these places were less busy. They also assisted Frank to meet a local group who flew model airplanes and drones. Most of these people were retired men and willing to let Frank warm up slowly. Over time he showed interest in managing the controls for a plane and was willing to attend events. Frank could wander at the edge of the field when events took place without bothering anyone until he was ready to approach familiar people. Staff made a video of Frank doing all these activities and sent it to Frank’s brother. Then staff taught his brother how to use Face Time and worked to give Frank some new video to share twice a month. Frank began to repeat his brother’s name for the first time. Staff met with a specialist who knew about Apps that support communication for people. They incorporated Apps into his iPad, so Frank could begin to use it as a mechanism for navigating life instead of a reward. Staff also found that swimming and a monthly massage helped to reduce Frank’s tension.**

The scenario above, highlights the creativity and impact staff can have in addressing setting events; in this case – spending time with significant people, experiencing a variety of community-based activities with opportunities for new learning and social roles and an individualized approach to reducing tension.

**5. Manage Antecedents**

Antecedent management is the process of identifying and altering the variables that occur immediately before a target behavior and which tend to trigger the behavior. Remember that triggers or antecedents do not cause the behavior however they do signal the person it is time to use the behavior. Reach shows that Antecedent Based Interventions (ABI) need to be assessed on an individual basis. What works for one person, may not work for another.

Engle (2017) indicates that ABI decrease or eliminate challenging behaviors by:

- Eliminating the antecedent event
- Modifying the antecedent event
- Changing how antecedent events are presented or experienced

The chart below shows common ways that ABI can be used to prevent challenging behavior.
<table>
<thead>
<tr>
<th>Strategy</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>Use learner preferences</td>
<td>• Teach the person to listen to music when they are cleaning up.</td>
</tr>
<tr>
<td></td>
<td>• Assign the person to work with a male/female as preferred.</td>
</tr>
<tr>
<td></td>
<td>• Wear a Marvel Comic Character T-shirt the person likes</td>
</tr>
<tr>
<td></td>
<td>• Use scents to help a deafblind person tell the day of the week</td>
</tr>
<tr>
<td>Alter the environment</td>
<td>• Rearrange seating on the van to avoid conflicts</td>
</tr>
<tr>
<td></td>
<td>• Allow for a private room or table for activities</td>
</tr>
<tr>
<td></td>
<td>• Make productive activities available during wait time</td>
</tr>
<tr>
<td></td>
<td>• Schedule snack after a non-preferred activity</td>
</tr>
<tr>
<td></td>
<td>• Clearly mark different work or break areas.</td>
</tr>
<tr>
<td></td>
<td>• Make a visual timer available when working or washing hands</td>
</tr>
<tr>
<td></td>
<td>• Announce upcoming activity or schedule changes in advance</td>
</tr>
<tr>
<td></td>
<td>• Provide an activity schedule (visual, tactile or auditory)</td>
</tr>
<tr>
<td>Use choice-making</td>
<td>• Offer more choices or materials or tasks before a behavior occurs</td>
</tr>
<tr>
<td></td>
<td>Provide opportunities to choose where to sit, what activity to do first, how long to work before taking a break, what to do during</td>
</tr>
<tr>
<td></td>
<td>break time, what tools to use etc.</td>
</tr>
<tr>
<td></td>
<td>• Choose what to work for or what behavior to work on first.</td>
</tr>
<tr>
<td></td>
<td>• Decide if the finished product met standards</td>
</tr>
<tr>
<td>Change how instruction is given</td>
<td>• Acknowledge what the person said before taking your turn</td>
</tr>
<tr>
<td></td>
<td>• Use object or visual cues rather than directing the person</td>
</tr>
<tr>
<td></td>
<td>• Use neutral statements (“it’s time to . . .”) vs. questions (“would you like to . . . “)</td>
</tr>
<tr>
<td></td>
<td>• Refrain from showing frustration through your tone of voice</td>
</tr>
<tr>
<td></td>
<td>• Give single-step directions. Ask the person for his/her help.</td>
</tr>
<tr>
<td>Eliminate a problem</td>
<td>• Use a tool that is easier to manipulate</td>
</tr>
<tr>
<td></td>
<td>• Switch out to a preferred person</td>
</tr>
<tr>
<td></td>
<td>• Eliminate an overwhelming demand or task and re-introduce it very gradually.</td>
</tr>
<tr>
<td></td>
<td>• Take time out to help the person resolve a problem before going on to business as usual.</td>
</tr>
<tr>
<td></td>
<td>• Create a ‘safe space’ that the person can access to vent or reduce tension. Teach the person to ask for a break.</td>
</tr>
<tr>
<td></td>
<td>• Limit choices to avoid overwhelming the person</td>
</tr>
</tbody>
</table>
Increase signals that positives will follow

- Use phrases such as “Guess What?” or “I know!” to signal that a good idea will follow.
- Introduce novelty or fun at the start of an activity – be playful.
- Place headphones at a work station to remind the person that music is available.
- Offer to do a challenging activity with the person supported.
- Increase the number of smiles, social attention and activities that are available and do not need to be earned.
- Teach an appropriate way to get your attention or ask for help.

**Figure 4: Examples of Antecedent Based Interventions (ABI). Haarstad, 2018.**

In addition to these kinds of antecedent strategies, two other important solutions exist.

6. **Set Realistic Expectations for Behavior**

Everyone has varied life experiences that shape what we expect from other adults. These beliefs and attitudes can drive how we interpret and react to behavior. Three important questions need to guide our thinking when providing support.

1. **How can I best support this person to experience maximum choice and control as part of learning self-discipline?**

2. **How do I know if my expectations for appropriate behavior may exceed the person’s current ability?**

3. **Am I expecting that this person’s behavior be any different from that of typical adults? Am I over focused on catching the person doing things wrong?**

**Requiring Compliance is Not a Realistic Expectation:** It is better to take action yourself (you get a drink of water) than it is to take action because you have been instructed to do so (“go get a drink of water, now”). Every time you give a direction, it places the other person (with or without a disability) in the position of going along with what you want or saying no. No one complies 100% of the time and it is unrealistic to expect that a person with a disability will do so either.

People need the action to be their own idea. Giving too many or the wrong kind of directions, increases the likelihood that a person will resist. It is important to understand that a parental approach (using a controlling voice; giving directions and expecting them to be obeyed; telling people what is wrong or what to do) undermines an adults ability to perform apart from a staff person and reinforces learned helplessness or escape behavior.

It is easy to slip into an approach based on ‘being the responsible adult in the room’ and say – I need to make him or her do this because it is what the boss or the situation requires.
Remember, we want to support the person with a disability in being the “responsible adult in the room,” even when they need our help to start, to do something less preferred or to try something new or do an activity the “right” way.

A parental approach automatically places the other person in a ‘less-than’ role which can lead to power struggles and a loss of dignity and respect. It also tends to breed a great deal of resentment. A better approach is to remember that both partners need to work together for success and to **structure your support to a win-win solution that preserves trust and reduces conflict.** Asking questions like “how you want to handle this,” or “which task we need to do first?” or “what’s next?” place the person in a position of control. Pausing before moving someone’s wheelchair or lifting someone in or out of a bed and asking him or her if they are ready, reinforces the person’s awareness that they are in control. Sometimes people do need explicit directions if they don’t know what to do. In fact, vague directions like ‘do the dishes’ may not be as clear as ‘wash the dishes.’ But as soon as a new situation becomes familiar, we want to move back to a supportive role. This process is also called “dipping in and dipping out.”

**Expecting People to Act in Ways Counter to their Disability is Unrealistic.** People have unique disability-related needs: Skill development and performance are influenced by the person’s disability. If the person’s disability affects processing directions, it is unreasonable to expect the person to follow multi-step verbal instructions or even to respond as quickly as another person might or they did last time. Everyone’s performance changes based on underlying worries, emotions, moods, fatigue or confusion. It is unrealistic to think that a person with I/DD would be able to manage everyday situations as quickly or well as a neurotypical person on a consistent basis. A disability may mean that a person needs more assistance or support on some days or at some times than others.

If the functional assessment shows that the person demonstrates the challenging behavior when a situation requires them to wait more than five minutes, the support plan must have a component to eliminate long waiting times because being able to wait longer may not be possible for that person. If staff expectations exceed the performance standard identified for the targeted replacement behavior, their attitudes can undermine the person’s skill development. For example: Requiring a person to reach 100% independence or expecting a person to stay in a work area when they see others come and go may not be realistic. Expecting a person with ASD to make eye contact or expecting a person with Down syndrome not to use ‘self-talk’ are all actions that do not show an awareness of and respect for the disability-related needs of the person.

**Raising Expectations Gradually is Realistic:** Setting realistic expectations also refers to raising expectations as new skills are learned. It is critical that staff understand the implications of the specific disability on behavior and learning. It is just as important to adopt a belief that people, even those with a significant disability and challenging behavior, can learn appropriate behavior with effective supports. One DSP gave a great example of how this can work.
One person using a specialty wheelchair with two handles was supported to go for a walk. Another person who was independently mobile went walking too. Staff used a good communication technique (commenting) to engage the second person. “Now that you have a new baby nephew, you’re going to need to learn to push him in a stroller.” The person supported immediately put her hand on the wheelchair and helped push for several minutes. Eventually she used both hands and with a little guidance stayed on track. The staff and person supported were excited and proud.

Clearly the woman understood the importance of helping others and of practicing, even though she might not have been able to express that idea verbally. The DSP plans to provide more chances to practice pushing carts, chairs and strollers. At the same time, she will not demand that the person do that activity the next time it is presented, just because she did it last time. Realistic means two steps forward and one step back.

7. Make Tasks Easier or Less Aversive

Wait! Shouldn’t we be providing challenging activities? Yes, but everyone benefits when given a balance of challenges and support. In fact, when a subtle change is introduced into a task to make it slightly harder, it negatively impacts the person’s motivation to find that task rewarding and increases their tendency to avoid the punishment inherent in doing the task (Frank, 2014) Using technology is a prime example of this phenomenon. If you go to a web page or app that is tricky or difficult to use, the pain or punishment you experience tends to overwhelm your motivation to try it out and you quickly move on. If you have difficulty getting good service at a restaurant, you are less likely to go back. Here are some antecedent strategies that help to make tasks easier or less aversive.

1. Be part of the reinforcement. Make sure that being with you is pleasant, without being overwhelming by paying attention to how the person wants to be supported and what increases the number of smiles or amount of effort given.

2. Use behavioral momentum. Support the person to begin with an easy task as a warm-up activity and then introduce a new or slightly more complex task. In this method, the person has already started to be active and it may easier to keep going than starting over or resisting.

3. Use scheduling to impact behavior. An effective and individualized schedule can increase the probability that the desired behavior will occur. For example, avoid scheduling a high-energy activity at a time of day when the person is tired or right before he is expected to go to bed or remain quiet.

4. Clarify expectations. Often challenging behavior occurs because the individual doesn’t understand what is expected. If verbal cues are not helpful, use pictures, actual objects, and gestures, to convey the steps in a task, schedule, materials to use, or other instructions.
5. **Give positive directions.** Phrase instructions in terms of what you want the person to do, rather than commanding the person to stop the challenging behavior. “Please walk,” is less directive or authoritarian than, “Stop running!”

6. **Modify the task.** Break the task into simpler steps. Find an easier way. If peeling potatoes is frustrating the person, try baked potatoes in the microwave.

7. **Provide more support.** Model, prompt, or cue the person to ensure success with the task. Try doing the activity together and gradually fading your help. If a person always argues when given a work assignment, take yourself out of the picture and use a visual schedule that gives choice and control.

8. **Plan bridging activities.** If waiting or transitions are hard for the person, have portable preferred activities to fill in the gaps. Waiting in the dentist’s office is goes a lot faster if Steve has his iPad or cell phone to pass the time.

8. **Take advantage of the Premack Principle.** This principle states that people in general are more willing to do a less preferred task first in order to get to the more preferred task. Stated in behavioral terms: “a high-probability activity can be an effective reinforcer for an activity that the person is less likely to perform” (Domjan, 2015). Think about scheduling a highly preferred activity right after a more functional activity so the highly preferred activity becomes a reinforcement for doing the work.

**How is the Premack Principle different from bribing?** If we are bribing a person we offer the reward first, “I will treat you to a Blizzard if you go for a walk today.” The person may take the Blizzard and then refuse to go for the walk. Premack is more subtle. It uses the anticipation of the reward to motivate continued effort. It is about putting away materials before break and reminding people that something good is coming next. “Tell you what, when we finish doing this (low probability), let’s go do that (high-probability).”

**Summary:** How successful preventive interventions are, depend on their match to a person’s interests, abilities, and the behavior’s function. Multiple interventions are usually needed.
Chapter 2 Study Questions

1. When ___________ _____________ are not in place or functioning well, the likelihood of plan failure is high.

2. Match considerations for introducing an intervention plan with its description:

| A. Communication            | ____ Opportunities to engage in meaningful activities. |
| B. Safety                  | ____ Believing that a person can learn new behaviors. |
| C. Active Support          | ____ Managing the risk of injuries or misuse of power. |
| D. Setting Events          | ____ Preventing triggers that act as a signal to use a challenging behavior. |
| E. Antecedent Intervention | ____ Controlling events that increase the likelihood of using a positive or negative behavior. |
| F. Realistic Expectations  | ____ Assuring staff are knowledgeable about plan details. |

3. Evaluate the support environment where you work against key predictors of safety:
   a. Are there sufficient numbers of staff to carry out behavioral support plans?
   b. Are staff adequately trained and familiar with the person and his/her support needs?
   c. Are all new or temporary staff familiar with interventions for each consumer/setting?
   d. Is there adequate on-site supervision?
   e. Do supervisors provide on-site training, encouragement, and assistance?
   f. Is appropriate staff time must be devoted to direct support of consumers?
   g. Do high turnover/absenteeism compromise consistent behavioral supports?

4. List 3 reasons for increasing active support before implementing a plan:
   a.
   b.
   c.

5. Learning functional skills decreases ___________ on others, thereby turning over power and control to the individual served.

6. Insufficient ongoing activities to support the development of functional skills, creates an environment where the success of a formal PBS intervention is ___________.

7. When plans are not consistently implemented and monitored for effectiveness, learning is ___________ likely to occur.

8. If staff view themselves as ___________ rather than care providers, and are reinforced by supervisors to do so, opportunities for engagement in a variety of activities will occur naturally.
9. What impact do improvements in quality of life have on challenging behavior?

10. For many individuals, challenging behavior is a logical reaction (from their perspective) to gain ____________ over their lives.

11. People with friends and significant people in their lives who care about them and for whom they care about have improved___________________.

12. ______ can be used to reduce challenging behavior by decreasing the support needed in personal hygiene routines, eliminating challenging behavior that has a communicative intent, expanding self-directed recreation and leisure options, and overcoming transportation barriers.

13. The more frequently_______________ is present in the support environment, the more likely it is that the plan will be carried out in the correct manner.

14. When choices are respected by others, competence ___________ and challenging behaviors ___________.

15. PBS plans shift staff attention from _______ to filling the person’s day with more_____ - for the many accomplishments.

16. When designing setting event interventions, it is important to look at the events associated with_________ behaviors in addition to ___________ behavior.

17. List at least three setting events or antecedents for challenging behaviors, in people receiving support from your agency. Identify the setting event and the problem behavior that results.

   a. 
   b. 
   c. 

18. For the setting events and challenging behaviors listed in the previous question, indicate how four or more of the following interventions could be used to prevent the occurrence of these behaviors. Briefly explain how each intervention strategy is or could be implemented:

   a. Maximize the Setting Events
   b. Minimize Setting Events
   c. Neutralize Setting Event
   d. Use Medication
   e. Prompt Positive Behavior
f. Promote Positive Interactions

g. Eliminate the Trigger

h. Fading In

i. Increase Triggers for Appropriate Behavior

j. Modify the Antecedents

k. Set Realistic Expectations

l. Make Task Easier or Meaningful

19. **Make the Task Easier or Less Aversive.** There are many ways we can change tasks to decrease the probability that challenging behavior will occur. Give an example of how you might apply each of the following modifications for tasks that people with challenging behavior whom you support find aversive.

- Use behavioral momentum:

- Use scheduling.

- Clarify expectations.

- Positive directions.

- Modify the task.

- Provide more support.

- Teach the person how to ask for help or ask for a break.

- Make the task more meaningful.

- Plan bridging activities.

- Use the Premack Principle
Chapter 3: Teach and Encourage Replacement Behavior

Objectives:
After completing this chapter, staff will be able to:

- Identify how skill deficits and attitude impact performance.
- Identify criteria for selecting replacement skills.
- Use systematic instruction to teach replacement behavior.
- Use different kinds of instructional strategies for different learners.
- Identify effective methods for error correction.
- Apply general principles of reinforcement to teaching plans.

1. Identify how skill deficits and attitude impact performance. Challenging behavior may be impacted by an underlying skill deficit (not knowing what to do or how to do it). When a skill deficit is present, a person is more likely to use a challenging behavior to communicate, interact, or solve problems instead of a more socially acceptable strategy. Skill deficits are typically linked to an underlying disability, are more intensive when people have multiple conditions and may differ from person to person (Smith and Matson, 2010).

Deficits may occur in a variety of skill areas including:

<table>
<thead>
<tr>
<th>Sensory Motor:</th>
<th>Moving, acting on objects, cause and effect</th>
</tr>
</thead>
<tbody>
<tr>
<td>Communication:</td>
<td>Forming, sending or processing messages</td>
</tr>
<tr>
<td>Social interaction:</td>
<td>Attending to, taking turns with and responding to social behavior</td>
</tr>
<tr>
<td>Self-management:</td>
<td>Managing impulses or emotions, waiting and delaying gratification</td>
</tr>
<tr>
<td>Life skills:</td>
<td>Personal care or activities of daily living like cooking, shopping or cleaning.</td>
</tr>
<tr>
<td>Work skills:</td>
<td>Keeping busy, asking for help, following directions.</td>
</tr>
<tr>
<td>Leisure Skills:</td>
<td>Planning, initiating, following rules and performing.</td>
</tr>
</tbody>
</table>

A certain environment or event may require the person to use more than one skill at the same time which increases the complexity of the situation. For example:

Successfully riding in a van with other people may require a person to get in and out, choose a seat, take turns sitting in the front, accept where the van is going, respond to other people who are talking and refraining from touching others. The underlying skills: movement, turn-taking, orientation, communication and self-management all need to be used simultaneously in response to changing conditions (e.g. someone whose singing bothers you, a van that takes an unfamiliar route, a new driver, another rider who sits too close, not getting your favorite seat, etc.).
Judging People Unwisely:

Sometimes we make judgement calls about why the skill deficit exists. These decisions can impact our attitude and behavior making it more difficult to establish or maintain a positive relationship with the individual. Negative judgements can take several forms.

“I’ve seen him do the right thing before. He could do it now if he really wanted to,”

“Her parents spoil her or should have taught her better behavior a long time ago.”

“He is doing that on purpose (which may be true). He is not getting away with that with me.”

“She is lazy. She knows better. She is not being responsible.”

“Other people with a similar disability have learned what to do so he or she should too.”

None of these statements are likely to teach the person to use a replacement behavior. There is nothing instructional in making a judgement although we all tend to do it at times.

The goal of the PBS plan is to teach the person appropriate ways to meet his or her needs, promote self-sufficiency, and enhance access to people and activities. A person may need to learn to:

- Use a new skill or behavior that is unfamiliar – the person needs to learn what to do.
- Use a familiar skill or behavior more frequently – the person has the skill but seldom uses it.

In short, we are asking the person to refrain from using a negative response and to use a new behavior instead – the person needs to unlearn a familiar response and replace it with a new and less familiar response under a variety of conditions.

This is a critical part of the intervention plan. It isn’t enough to try to decrease a challenging behavior. Simply getting rid of the behavior doesn’t eliminate the need that the person was trying to meet. If we don’t identify and teach the person to use a replacement behavior the person will be forced to use another challenging behavior to meet the same need.

Encouraging and teaching replacement behavior is a pro-active approach. Judging is a reactive approach.

2. Identify Criteria for Selecting Replacement Behaviors

Replacement behaviors may be taught as part of a formal intervention plan and/or informally as part of positive support for behavior. It is difficult for the team to identify and teach replacements for all the underlying skill deficits that may contribute to the person’s use of an inappropriate behavior. Typically, 1-2 pivotal behaviors are targeted by the team for formal instruction. Other related skills must be identified and taught in the moment.
A. Find an alternative that has the same pay-off or value for the person (either get something equally or more reinforcing or getting out of something unwanted just as effectively.

**Seeking:** If an inappropriate behavior (continuously watching videos on a cell phone) maintained because it provides entertainment or excitement (seeking), then the replacement behavior (socializing or working), will need to provide equal or greater entertainment value. If watching videos is more entertaining than working in an office setting, working in the office needs to bring the person something equally valued. A paycheck, for example might be really valuable to the person later, but it will not have the same immediately draw that watching a video now might offer. In this case, being videotaped at work, caught doing it right and watching or sharing that video with others or getting new directions or assignments using videos is more likely to be effective than the paycheck which is an abstract concept that relies on delayed gratification.

**Escape:** If an inappropriate behavior (swearing and refusing to help cook at home) results in immediately getting to leave the kitchen and be alone, then when the person (with ASD) uses the replacement behavior (“I will switch with Fred and cook tomorrow,”) he or she **should get to leave the kitchen just as quickly.** Immediately asking the person to stay and help and trying to delay his or her leaving may feel like the right thing to do, but that attention may not have the same immediate draw as controlling when to cook and when to be alone does for a person with ASD who needs to retreat from a demand situation. Other considerations might include cooking at a quieter time with only one other person in the kitchen and using a visual if/then signal so the person knows when escape is appropriate.

B. Find a replacement behavior that is easier/more efficient that the challenging behavior. For example, if the person is being taught to communicate instead of using a loud protest behavior, then having a communication card readily available is more likely to be successful than needing to get a communication device out of a closet and plug it in before it can be used. Similarly, insisting that the person always carry the device themselves may be counter-productive until after using the device becomes valuable to the person. **When a replacement behavior is cumbersome, it may not be long before the staff find that trying to encourage the person to use the device to be ineffective and give up.** Then what should have been an effective support option may be lost forever.

The considerations described below increase the likelihood that a person with an intellectual disability will be motivated to use a replacement behavior.
Considerations in selecting replacement behaviors that support these criteria include:

a. Selecting a behavior that the person uses readily in another setting to try in this one.
b. Selecting skills that will immediately help the person achieve an important goal.
c. Selecting skills that many people agree are “socially valid” (important for success).
d. Selecting skills that can be practiced frequently and used more often (e.g. asking for help).
e. Selecting skills that help the person have an easier experience (e.g. using a switch to activate a mixer rather than trying to stir one by hand).

Figure 5: Considering Replacement Behavior. Haarstad, 2018.

3. Use Systematic Instruction to Teach Replacement Behavior

Systematic instruction is the direct efforts we take to teach the person to use a new skill using a methodical approach. We don’t leave learning to chance or “hope” the person catches on. Our system for teaching needs to be consistent, a match for the unique needs of the person (individualized), and effective (proven to work) with people who have similar needs or with that person in the past. A systematic teaching approach usually contains the following parts.

A. Set-up the environment to make it easier for the person to succeed. This may involve eliminating certain distractions, using a preferred location, bringing in highly meaningful materials, etc. Set-up might also mean having any materials you will use during instruction at hand, and ready to go so the person with a short attention span isn’t kept waiting for very long. It could also mean where you place materials and how you position yourself, so the person doesn’t need to reverse what you might be showing them.

B. Identify any pre-requisite skills the person needs to benefit and adjust the strategy. For example: demonstrating how to fold a towel will not be effective if the person cannot see the towel. Seeing would be a pre-requisite skill in this case. So, we would need to adjust the demonstration by using physical guidance, so the person could feel what to do and how to do each step.

C. Give the person information that shows him or her exactly what he/she needs to do or say, how to move, how to position and act on any items involved and at times, specifically what not to do. You might demonstrate what to do, ask a peer to model the behavior, give the person a photo or video that shows what to do or use a permanent product (a set of folded towels) to copy or even route learning.

D. Use instructional cues or prompts to help the person make sense of the information. The prompt makes a bridge between what you showed the person and their next attempt to try it out.
The goal is to give the prompt before the person makes a mistake, so they don’t practice their errors but not too quickly less the person becomes helpless. Prompts are then faded over time until the person has learned to demonstrate the skill or a specific step with less help.

**E. Give support to correct errors:** When helping a person to correct errors we mean supporting them to move from an incorrect performance to a correct performance as quickly as possible and then reinforcing them for doing it right. It is easy to make mistakes when trying to correct an error. Some typical examples include:

**F. Avoid Over-prompting** – giving no time for the person to try it on their own first. Giving to many prompts.

**G. Don’t Repeat failed prompts** – giving the same prompt over and over, even though it didn’t work the first time. The only time we repeat a prompt is if we suspect the person didn’t respond because he or she was not attending. Even then, we would only repeat that prompt once. After that, we switch to a different level of prompting.

**H. Don’t Wait Too Long to Fade Prompts** - Continuing to provide prompts when they are not needed can make the learner become prompt dependent.

4. **Use effective teaching methods.** A method is effective if it has been proven to work with individuals who have similar challenges. There are a large variety of teaching methods that researchers have proven work better than trial and error. Some examples are:

- **Breaking an activity down into steps** (task analysis or protocol)
- **Teaching the person to perform** one step at a time until an activity or routine is finished (chaining).
- Starting with a partial attempt to use a skill or perform an activity and **gradually shaping successive attempts that get closer and closer to the desired skill** (shaping).
- **Helping people to understand concepts** by starting with clear examples and gradually progressing to examples that are less clear (concept analysis).
- **Using an analogy to help a person understand an abstract idea.** For example: Staff were trying to teach someone to go back and start over. Once the person decided on a specific approach, they did not want to reverse their approach and go in a new direction. So, if they decided to check out at their workplace before completing all tasks but had missed a task, they were disinclined to go back and check-in. The staff used the idea of the reverse direction card in the Uno card game to signal it was time to reverse course. This was an analogy that worked well because the person was familiar with and liked to play the game.
• **Using visuals or video modeling to show a person what to do.** This involves giving the person a clear visual cue or model for what to do. Placing a box of cereal on the counter at night, is an object cue that is visible the next morning as a reminder to eat breakfast. Using an if/then card or an oops card to help with schedule changes. Taking a video of the person demonstrating the skill correctly and having them watch their own performance (video modeling).

• **Individualized feedback** (using a consistent method to correct errors and reinforce correct attempts). Typically, we would drop to a more intrusive prompt level and then ask the person to repeat what we did, followed by trying it again with the original prompt given. For another person, we might need to wait longer between prompts because of a slower processing time. Other people may need reassurance that they can do it or are in control.

**Systematic Instruction is most effective when it is:**

a. **Individualized** for the person (builds on their strengths and preferences)

b. Provided **consistently** (keeps us from confusing the person)

c. **Focuses on what to do instead of what not to do** (focus on the positive)

d. **Provides frequent opportunities to practice** (helps with memory)

e. **Part of the daily routine** so the person learns to generalize skills to different situations, environments or people.

Individualizing prompts means paying attention to how the person learns best. Physical contact is aversive for some people and may not be effective. Verbal instruction may not work for someone who has difficulty processing what is said and may need to be paired with a gesture or a visual cue. The *Achieving Personal Outcomes* module in the North Dakota Community Staff training curriculum focuses specifically on each of these aspects of instruction.

5. **Use Different Kinds of Instructional Strategies for Different Learners**

An instructional strategy or approach is the way we teach someone what to do. We choose *an approach to instruction based on what the person understands or their cognitive abilities.* Suppose in the past, Tom was given a label of having profound intellectual disabilities. That label does not mean he can’t learn or that we don’t have a responsibility to intervene or teach a replacement behavior. **The approach we use needs to be a match for Tom’s cognitive abilities (what he does understand).** For example: You can demonstrate or show a person what to do but if that person does not yet have the ability to imitate others (like Tom), then that method of instruction will not work. Teaching strategies are selected based on their match for how the person learns.
A. **Route Learning:** This method involves leading the person through repeated practice until a response becomes automatic (is easily done without thinking about it). Performing the same routine or the same steps over and over until they learn the action by route is the only way that some people learn new skills. You might open your mouth to take in a spoonful of food by route or go to the cafeteria by route. You don’t think about it, you just do it. Even when a person cannot imitate, they can learn to do something by route.

B. **Imitation:** This method relies on a person’s willingness to copy or attempt to copy what they see other people doing. If a person knows how to imitate your behavior, then you can use the “**Least to most**" prompting strategy. This simply means that you start by demonstrating or telling the person how to succeed (so they know what to do) and then give the least amount of support needed for the person to be successful with that task or behavior. If that prompt does not work, you give slightly more support by moving to a slightly stronger type of prompt. The least to most prompting hierarchy looks like this:

<table>
<thead>
<tr>
<th>Most Support</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Full Physical Guidance</td>
<td></td>
</tr>
<tr>
<td>Partial Physical guidance</td>
<td></td>
</tr>
<tr>
<td>Modeling</td>
<td></td>
</tr>
<tr>
<td>Gestures</td>
<td></td>
</tr>
<tr>
<td>Verbal</td>
<td></td>
</tr>
<tr>
<td>Visual</td>
<td></td>
</tr>
</tbody>
</table>

| Least Support                       |                                    |

C. **Problem-Solving:** This method involves using problem-solving skills the person to make learning more interesting or teaching specific problem-solving skills to help the person achieve better choice and control. Problem solving skills that are pivotal in life might be, understanding the difference between yes and no, trying a different approach, instead of repeating the same step over and over when it clearly doesn’t work, looking for what is hidden, activating a switch, follow a key of how to organize something by matching what you do to a sample, or use trial and error to find out what works best for them. Problem-solving can be introduced at any time but it is typically used after a person has learned to do a variety of activities.

D. **Teach or Use Functional Academics or Life Skills** This method involves using functional academics to give information or clarify when or how well a behavior or an activity needs to be done. This method requires a person to be able to decode or read information, use and understand numbers, measure, sort and organize representative symbols such as words, letters
or pictures. This approach can be used to clarify expectations and help people organize themselves at home and work.

**For example:** Three photos of possible leisure activities were placed on the wall using Velcro (on the back of each photo). Jake was taught to look at the photos and pick the one representing what he wanted to do with his leisure time (listen to music, go for a walk, use the computer). This method worked because Jake recognized the item in the photo and knew it represented a choice. This same method did not work for Erica. She did not know what the photo meant and tried to eat it. Marty was assisted to make a “wish list” on his cell phone for things he might like to buy instead of repeatedly asking staff and family members about new videos. Many people with I/DD learn academic and even functional life skills in schools but may not demonstrate the skills if people in their current environment assume they don’t have them and don’t provide an opportunity to use them or offer help that is not necessary.

E. **Teach in natural settings** (Naturalistic teaching). A Day Habilitation program is not a typical setting where most adults spend time. A pre-vocational program that takes place largely in a structured setting within a building owned and operated by an agency is highly likely to be unsuccessful unless steps are taken to help the individuals who are participating to generalize what they learn into a natural setting.

We refer to settings which do not provide the full range of opportunities as restrictive because they restrict the depth and number of learning experiences. There is a myth that a person with an intellectual disability needs a more restrictive setting because of a short attention span, distractibility or interfering behavior. The truth is that learning that does not take place in a natural environment is unlikely to be used anywhere except the restrictive setting. Below are some activities and options for natural or restrictive settings.

<table>
<thead>
<tr>
<th>For Example</th>
<th>Restrictive</th>
<th>Natural</th>
</tr>
</thead>
</table>
| Cooking     | In a Day Habilitation break area | • At home  
              • Gourmet cooking store in town  
              • Grill at the park  
              • Apartment setting |
| Pre-vocational | In a room at the Day Habilitation Center | • Interviewing a boss at his office  
                                           • Job shadowing in the community  
                                           • In a community room at the mall |
| Using a restroom | In a restroom at the Day Habilitation Center | • At home  
                                          • At a restaurant  
                                          • At a store or public location |

**Figure 6: Comparison between restrictive and Natural Settings. Haarstad, 2018.**

The major advantage of naturalistic teaching is that you are exposing the person to all the natural antecedents and consequences that will ultimately control the person's behavior. If you teach in a
real-life situation, the appropriate behaviors are more likely to occur in the same situations, when you are not around. If teaching occurs in an artificial setting, generalization may be more difficult to achieve. Of course, there are time and costs associated with finding and using natural settings. Some practice needs to be done privately.

**Instruction within Routines.** People benefit if they can practice and use a new skill many times a day. That helps with memory and it also helps the person realize the skill is useful. Massed practices (doing the same thing over and over) is NOT effective because it feels a lot like force. No one likes to be forced.

The best way to achieve this is to find or create multiple opportunities within a familiar everyday routine for the person to receive systematic instruction and not just one. We call this embedding the instruction within the routine. For example: It is not practical to set an alarm clock more than once a day. However, the same function turning a switch on, waiting, hearing a tone and turning it off can be practiced throughout the day on a watch, a cell phone or a kitchen timer. It is important to find ways to include the skill in a variety of settings, and activities, and in the presence of many different people. This will increase the likelihood that the behavior will be generalized and maintained. Team members need to include strategies to teach generalization of the skill in the plan design.

**Modeling.** Modeling or demonstrating what to do is often more effective than telling (verbal) because:

- 80% of learning for most people is visual.
- A demonstration can be conveyed as a little story. Our brains seem wired to remember stories longer than facts.
- Words are gone immediately after they are spoken. Modeling can produce a permanent product that the person can see again and again.

Any overt behavior can be modeled. The replacement behavior is modeled at the beginning of each session. The learner has to have the necessary imitation skills (I do what you do) and be able to pick out the aspects of the movements that are most important. The learner is then given a chance to imitate the behavior. The person is provided feedback that specifies what was done correctly and what to change.

For example: A DSP was teaching someone to tie their shoes. The DSP demonstrated how to do it. But the person with I/DD could not discriminate what was important. They saw the DSP’s hands moving but couldn’t perceive what to do first, second, third etc. It all looked like a blur to that individual. However, modeling can be broken down into easy to follow steps. When the act was modeled one step at a time with pauses between steps, the person began to imitate more clearly.

Modeling doesn’t require expressive or receptive language skills. We can find out if a person knows how to imitate by asking the person to "do this" or to "do what I do" followed by a simple motor response (clapping, raising your hand). Some people may have to be taught how to imitate
before modeling is used. Modeling often takes place informally in day-to-day interactions. Many individuals do things the same way they have seen staff do them. If we are seen to scold or complain, the people we support are watching.

**Shaping.** The term “shaping” is usually defined as the reinforcement of successive approximations of a desired response. That means at first, we accept the person’s best attempt, even though it is not perfect. Then, gradually over time, we work to help the person to shape their behavior to more closely match what we hope will be a more polished behavior. There are two types of shaping procedures: topography and unit shaping.

**Topography Shaping** (Each step is the same): We use this approach when working with a behavior which is done on an all or nothing basis. Nothing changes except the behavior occurs more frequently or for longer periods of time. Examples include making eye contact, walking, activating a switch, getting out of bed in the morning or stopping before you overfill a cup. This method is not used as frequently as unit shaping.

**Unit Shaping (Each step is different):** We use this approach when teaching a behavior as a series of steps, each of which is different from the other but result in a completed task. Examples include housecleaning, personal care and work activities. For example:

Frank is learning to set the table. At first he is praised for putting any items on the table, no matter how scattered the placement might be. Gradually the staff begin to model putting silverware by each plate. This builds on what the person first learned to do. Later, they teach Frank to also set a napkin on each plate and a glass by each fork.

The first step in unit shaping is to identify all the steps of the targeted behavior. This is known as a *task analysis*. The more significant the cognitive disability and the more complex the task, the more steps needed in the task analysis. The task analysis facilitates learning for people with cognitive disabilities in three ways (Reid & Green, 2005):

- It makes it easier to learn because the learner can focus on one specific behavior at a time.
- Each step completed cues the person to remember the next step
- A written task analysis or protocol helps different staff perform the task in the same way.

**Rehearsal** is an instructional strategy in which the person practices the replacement skill immediately before needing to use it in a natural setting. For example: On the way to the store, the DSP helps an individual remember to keep his or her hands on the cart. Or before interviewing a boss, the job coach reminds the person to shake hands not use a fist bump. If the rehearsal occurs too early, the person may not remember what to do in the actual situation. Rehearsal only works as a way to remind the person what they already know how to do. Rehearsal can be done as a conversation, a practice role play or as a visual social story. Rehearsal works best to demonstrate what to do not what to avoid. “Jack keeps his hands by his side,” is better than “Jack doesn’t use inappropriate touch.” Role playing is a more sophisticated form of rehearsal and may be difficult for some people to understand. Acting out a situation can be too abstract or can be confusing for some people with I/DD.
Rehearsal is typically used for behaviors that involve interacting with other people and behaviors that might cause embarrassment or other problems if the initial teaching sessions took place in the natural settings. Examples include conversation skills, job interviews, dating behaviors, problem solving, assertiveness training, coping and relaxations skills, etc. As these examples indicate, skills that are taught or modified in rehearsal are complex behaviors that can only be mastered through practice. Behavior rehearsal allows for this practice to take place in a safe, private setting before the skills must be used in the actual setting. By following each rehearsal with a chance to use the skill in a real-life setting we are supporting the person to generalize the behavior. Specific feedback is provided to inform the person what was done correctly and what was not.

**Video Modeling:** Video modeling is a form of rehearsal in which the person is in effect “the star,” of his or her own show. The person is asked to do a task a certain way. He or she is video-taped when they do the activity well. They then watch the video-tape before trying the behavior next time. This evidence-based strategy has worked very well with people with ASD and is effective with other people too. The individual is then encouraged to continue practicing the behavior until he or she is comfortable using it in natural environments. A video-model is quickly discarded once the person starts to be consistent. It is not something we force someone to watch every day no matter what.

**Avoiding Power Struggles:** It is important when teaching not to over-focus on doing the job right. Once we start to define someone’s performance as right or wrong we are in fact placing that person in the wrong when they do a job differently than we expect. Many people with disabilities receive significantly more negative feedback than persons without disabilities. They may become very sensitive to the slightest hint that their behavior was less than perfect. Their response is often a misinterpretation of the situation in which they quickly conclude – “this person doesn’t like me.”

**Preference-Based Teaching. (Win-Win).** Preferences-based teaching happens in three parts. First, we provide brief, preferred activities immediately before initiating a teaching or work session to enhance responsiveness. This is sometimes called a “warm-up.” Next, we build preferred activities into the instructional process (e.g., interspersing easy instructional tasks, novelty, humor or brief breaks). Finally, each teaching session is followed by a highly preferred activity.

This method is helpful if a person with I/DD has had negative experiences with a specific situation in the past. When that happens, the activity signals the person to that it is time to engage in a challenging behavior, even when the original reason for the behavior is gone or if you weren’t part of the original negative experience. For example:

Shelly had a special relationship with a preferred DSP. Shelly’s DSP made crackers available to her after finishing some work at the end of the day. Shelly soon became very insistent on having access to the crackers on demand. If crackers were not immediately available, Shelly began to search for them and if prevented from accessing them would scream, throw herself
on the floor and hit her head. The DSP realized the crackers were a “mistake,” and removed all crackers from the program area. She showed Shelly the empty cupboards and let her know that crackers were not an option any more. Shelly could enjoy crackers when she got home.

A week later, the DSP transferred to a different program and a new DSP started to support Shelly. Shelly knew that the crackers were gone. However, every day, when there was still only a half hour left, Shelly would have a melt-down. She had learned that the end of the day meant no crackers and time for a tantrum. In order to end the outburst, the new DSP needed to introduce some highly reinforcing activities and novelty into the schedule so that Shelly forgot about having a melt down and enjoyed that time of the day for its own sake. Activities included eating lunch and spending break-time together and then presenting a helium filled balloon or a small wrapped gift, offering a drink in a pretty tea-cup instead of a water bottle and looking through pictures of horses.

The key idea is: if the learning session is enjoyable for the learner and the staff person teaching the skill, the teaching plan is more likely to be implemented consistently. Research by Cervany in 2016 showed that while preference-based teaching did not increase skills learned more than other evidence-based methods, it is consistently chosen by people with disabilities over other methods. Reduction of problem behavior does occur when PBT is used and that is a goal in itself.

a. Develop a Good Relationship Before Making Demands or Expecting Compliance
   - Spend time together doing things the learner enjoys.
   - Help the learner adopt appropriate ways to avoid or escape things he/she dislikes.
   - Send signals that tell the person you can be trusted (waiting, listening, tone of voice).

b. Make the Learning Experience Enjoyable.
   - Add features to the learning environment that he or she likes (i.e., music, lighting, people, favorite items) and remove those the learner does not like.
   - Interact with the learner in ways that he or she likes (jokes, visiting, etc.)
   - Include enjoyable items and activities during teaching
   - If the learner shows discontent, provide a brief break and preferred activity.
   - Provide choices as to the order of tasks, the way tasks are done, how the teaching will be done (the instructor takes a turn) and what the person is working to earn.
   - Provide enjoyable activities immediately after the teaching sessions (after teaching)
   - Introduce novelty or challenges that the person enjoys.
   - Provide a choice of two highly preferred items or activity at the end of the session
   - Avoid interrupting a preferred activity to teach a skill. If that can’t be avoided, inform the learner that the activity will take place in a few minutes. Asking if the learner wants to begin now or wait until later (a specific time that works for the staff (i.e., after break or a favorite TV show) is a good way to inform the learner that teaching will begin soon and to give the learner some control.
   - If the learner prefers a consistent routine from day to day, build predictability into the timing of teaching sessions (i.e., after American Idol).
   - Schedule additional sessions if extra sessions are reinforcing for the person.
   - Never use teaching sessions as a punisher (e.g., "Since you were late we are going to work on
this activity and you don’t get to do that activity.”

- Eliminate as many distractions as you can.
- Begin each session with a skill or a step in the skill that the learner performed successfully in the past. This serves two functions: (a) it lets you know if the behavior has maintained since the last session; and (b) there is a good chance that the person will then be reinforced, which starts the session on a positive note.
- Do not begin if the person is engaging in a negative or challenging behavior. Since the teaching session presents an opportunity to be reinforced, the trial should begin only if the person is acting appropriately.
- Use the time with you to reinforce appropriate behaviors other than those targeted in the formal teaching plan (i.e. helping out, initiating a leisure activity)

- Record the necessary data after each trial.

c. **End the Session on a positive note.**
   - End the session if the person shows signs (e.g., not attending to the task, attempting to leave, or fatigue) that he or she wants to end the session. Initially, keep the sessions short and gradually increase their length. It is better to have many short sessions than a long one.
   - Whenever possible, end the session after a successful trial. If the session ends on a positive note, the person is more likely to participate the next time.
   - Provide a choice of a remnant of the session (e.g. a photo of the person, an extra cookie to take home from a baking session) that he or she can enjoy or can share with others.

6. **Give Individualized Feedback (Error Correction and Reinforcement)**

Staff need to provide effective feedback to learners during instructional sessions. Following an instructional prompt or step in a teaching plan, learners may:

- **Do nothing.** Because the learner doesn’t know what to do or is still trying to process what the last cue meant. The appropriate staff response after waiting a few seconds, is to provide a more intrusive prompt (move up the sequence of prompts).
- **Do nothing.** Because the learner already knew how to perform the step and is confused because she gave a direction he or she didn’t need and thinks you are taking over. The appropriate staff response after waiting a few seconds, is to say, “Go ahead, you can do this.”
- **Do nothing.** Because the learner knows what to do next and has decided not to respond for some reason. The appropriate staff response after waiting a few seconds, is to initiate a turn, demonstrate your turn, give a slightly stronger cue.

It can be tricky to decide which kind of “do nothing” response you are getting. Through trial and error, you will usually begin to know how to wait the person out, avoid repeating prompts, give encouragement and go up or down the prompting chain as needed with specific steps. It is very important for staff to communicate for one another so that you know when a person can actually do a step and to make sure all staff are approaching the task the same way. Or the person might:
- Perform the step or skill incorrectly. In these cases, the error must be corrected.
- Perform the step correctly. The appropriate feedback then is to provide reinforcement.

**Error Correction.** When people are learning, errors will occur. If the learner performs the step or skill incorrectly one of two things will happen. The person will eventually notice and then correct the error themselves (less likely), OR, the person will continue to practice the mistake making it difficult to change later (more likely).

We may think we just can tell an individual with I/DD to change what they did or do it differently however it is not that simple. If the person didn’t recognize that they were making an error, they may not understand why you are stopping them. Many people with I/DD dislike being interrupted in the middle of a situation in which they are in control (it sends a signal that you are taking over and they may stop trying) or they find the interruption confusing (they lose momentum or forget what the next step was going to be).

Some people may not perceive the feedback as intended and come to the conclusion that you thought they were doing it wrong and that you think they are bad instead of the action not being right. **In any behavior intervention plan it is important when replacement behavior(s) are taught to think through and individualize the error correction procedures.**

To be effective, we ask the learner to repeat the step and provide enough assistance for the learner to perform the step correctly as soon as an error is noticed (Reid & Green, 2005) and then to immediately try it again with less help. Types of error correction include:

- **a. Give prompts and pre-corrections** – provide reminders before a behavior may be expected that clearly describe the expectation. As George finishes his lunch a DSP says (e.g. George, please take your tray to the counter) before he has a chance to leave abruptly.

- **b. State what you want the person to do differently** – state the observed behavior and tell the person what they should do in the future. (e.g. This time you put the shredded paper in the dumpster. You need to take the next bag to the recycling bin). It is critical when giving the feedback that you deliver the message in a brief, concise, calm and respectful manner, preferably in private and with a smile.

- **c. Determine if the error is occurring as resistance to doing the step a specific way or a refusal to do a step at all.** Use the resistance analysis chart to respond. Resistance would be if the person doesn’t know how to do that step, like that step or know when to do a step. Refusal would be if the person doesn’t intend to do that step and knowing that you can’t make him or her do it and pressure to do so would make the situation worse.

- **d. Provide praise, attention or other responses that are reinforcing immediately after the correct**
7. Apply Principles of Reinforcement.

Reinforcement is a key element in effective teaching and in making the teaching session enjoyable for the learner and the instructor. The concept of reinforcement is covered in extensive detail in other training modules in the Community Staff Training Curriculum (i.e., Achieving Personal Outcomes, Positive Behavioral Supports). In this module, the discussion on reinforcement will focus on issues that affects the plan design. Plan designers need to consider reinforcement for each step in the skill and for completion of the entire task. Key considerations when planning for reinforcement in a support plan are: 1) What will be used for reinforcers? and 2) When and how often will reinforcement be delivered? 3) How will a variety of reinforcers be used so the person doesn’t get tired of just one kind and 4) How long can the person continue to make an effort before reinforcement is delivered?

The ultimate goal in teaching replacement skills is for the behavior to occur based on natural consequences in settings the person frequents. Sometimes the natural consequences for the behavior are ineffective for a specific individual. That is why a challenging behavior exists. In these cases, the plan specifies the temporary use of artificial consequences. An artificial consequence is any consequence used which does not normally occur for a given behavior.

Since our ultimate goal is for the replacement behavior to be maintained by natural consequences, the plan should always pair an artificial reinforcer (verbal praise) with a natural reinforcer (social attention when finished). This is also called conditioning. The goal is to teach the person to value the natural reinforcer. During conditioning, the ineffective consequence (natural reinforcer), immediately follows the behavior you are teaching, and the natural consequence is immediately followed by the effective consequence.

For example, Amy refuses to help with any household tasks and sometimes becomes verbally aggressive when asked to complete any household chores, even her own laundry, dishes, or cooking. We may have to start by reinforcing her with tokens for helping with chores. We would pair praise or compliments (natural) with the tokens (artificial) until she learned the tasks and completed them without concern for tokens.

Once pairings of the initially ineffective natural consequences with effective artificial consequences are established, the artificial consequences are slowly faded. Also, the natural consequences may be slowly thinned (if necessary) so that they occur on a normal schedule. (Schedules of reinforcement will be discussed later in the chapter). The final result is the maintenance of the replacement behavior: 1) at the desired level, and 2) by natural consequences on a normal schedule.

If it is necessary to include artificial consequences in the support plan, the choice may depend
upon several things, including the following:

1. **The power of the reinforcement.** You will need to select something that has equal or greater value for the person than the original functional of the behavior. For example, if a person disrupts the area to get a lot of social attention and the reinforcement is a token, the reinforcement will not be able to compete with the original reason the person has for engaging in the behavior. However, if the person can immediately trade the token for a fist bump and some 1-1 time with staff, that might be a more immediate and a more powerful form of reinforcement.

2. **The targeted replacement behavior.** The type or magnitude of the consequence should fairly well match the behavior you are trying to teach or increase. You probably would not, for instance, give Leah a piece of candy for brushing her teeth with the new electric toothbrush. This would defeat the purpose of brushing and it may teach her that it is appropriate to eat after brushing. You probably would not give Leah a CD after brushing with the new toothbrush, as CDs are expensive and are too much to expect for brushing one's teeth. A token, though, may be appropriate if, for instance, it took three weeks of tokens for tooth brushing to earn a CD.

3. **The cost of the reinforcer.** Praise is probably the least expensive, along with social interactions with staff, etc. Some activities are free or inexpensive (i.e., playing cards).

4. **The immediacy of the consequence.** Sometimes there must be a delay between the behavior being taught and the consequence. For instance, it may be that Joe will have to wait until after dinner to play Monopoly with staff even though Joe earned the reinforcer before dinner. Generally speaking, the longer the delay, the less effective the consequence is in modifying the behavior. Waiting until the end of a shift is seldom effective with most people who have intellectual disabilities.

5. **Length of contact with consequence.** If staff are teaching Kim to sort laundry and she must be reinforced often, it would be best to choose a reinforcer which requires little contact time. The presentation of praise or a token takes very little time, and the time it takes Kim to receive it is also minimal. The time it takes to watch a movie would be impractical as a reinforcer if the person requires many repetitions to learn a new skill.

6. **The likelihood of satiation.** People satiate (become full) more quickly on some consequences than on others. If you give Teri food as a reinforcer and she has a small appetite, food may be effective for only short periods of time throughout the day. The behavior which is being taught may never reach the level at which it should occur. A stamp for Teri’s collection may be a very good reinforcer since people satiate less often on items they collect.
7. **Knowledge of the person with whom you are working.** Some consequences may be effective for some people but not for others. Sally may wash her face regularly because she is told how nice she looks but Arnold may not change his behavior to receive compliments. Peter might quit spitting at people in the van if he is ignored when he does so, whereas Mandy's cursing may increase if people ignore her. It is extremely important to choose a consequence which will be effective in modifying the person's behavior in the appropriate direction. This may be done in several ways:
   a. Ask the person what he likes or what he or she wants to work for today.
   b. Ask other people what they think he likes.
   c. Observe what the person does frequently. These activities are potential reinforcers. Observe the consequences which the person avoids. There may be opportunities for negative reinforcement (opportunities to escape tasks or events the person finds unpleasant).
   d. Try out the consequence. If the behavior increases following the consequence, in likelihood, the consequence is a reinforcer.

8. **Socially valid.** It is important to select reinforcers that are available for individuals of the same age, performing the targeted behavior, in the same settings. Reinforcers should not draw attention to differences in the learner’s ability or circumstances. In some cases, the initial reinforcer will not meet this requirement, but it should be the goal of the teaching plan to move to reinforcers that are typically available to adults.

A **schedule of reinforcement** indicates:
1. how frequently a behavior is followed by a reinforcer; and
2. the variable(s) upon which reinforcement is based.

**Non-Continuous Reinforcement:** Replacement behaviors flourish in circumstances in which reinforcement is non-continuous. That means that reinforcement is periodically available on a non-fixed schedule. Research by Carr and Severtson (2009) indicated that this form of reinforcement closely parallels what is usually available in the natural environment and is a powerful treatment for problem behaviors used by people with I/DD.

**Continuous Reinforcement (CR) Schedule.** If a replacement behavior is reinforced each time it occurs, then the behavior is on a **continuous schedule of reinforcement.** Some behaviors naturally are followed by reinforcers each time they occur. When people say "hello" to other people (behavior), there is usually a return greeting (reinforcer) after each behavior occurrence. Lights usually turn on/off (reinforcer) each time a person flips light switches on/off (behavior). Each time the correct amount of change is put into the machine and a selection button is pushed (behavior) a pop drops down to the opening (reinforcer).

Most behaviors are naturally followed by reinforcers on a less frequent schedule. Frank might clean his room (behavior) five times, but only be praised (reinforcer) after one of the five
occurrences. Julie might tell Susan to "shut-up" (behavior) ten times within a week, but only be rewarded by Susan crying and leaving the room two of the ten times. Different schedules have different effects on the behavior. The plan designer chooses the schedule of reinforcement that is most appropriate for the targeted replacement behavior. Possible reinforcement schedules to consider include:

**Fixed Ratio.** If a behavior is reinforced every "X" number of times the behavior occurs, then the behavior is on a fixed ratio schedule of reinforcement, abbreviated "FR." If a behavior is followed by a reinforcer every fifth time the behavior occurs, the behavior is on a fixed ratio 5 schedule of reinforcement, abbreviated "FR5." If a person is taken out for ice cream (reinforcer) after he has cleaned his room (behavior) five times, then room cleaning is on a FR5 schedule of reinforcement.

**Variable Ratio.** If a behavior is reinforced on an average of every "X" number of times the behavior occurs, and reinforcers follow a variable number of times the behavior occurs, the behavior is on a variable ratio schedule of reinforcement, abbreviated "VR." Watering the plants (behavior) may be followed by praise (reinforcer) after an average of five behavior occurrences. Praise might come after the third time the behavior occurs, then the seventh, etc., so the average is five.

**Fixed Interval.** On a fixed interval (FI) schedule of reinforcement, the person is reinforced for a specific behavior after a fixed amount of time has passed. The number of responses made doesn't influence whether the person will be reinforced -- only the passage of time is important. For example, James, spends a considerable amount of time engaged in off-task, disruptive behavior at work. The functional assessment showed that reprimands from the job coach were actually reinforcing this behavior. The replacement behavior the team selected is on-task behavior. Attention from the job coach will be used as the reinforcer. The goal is not necessarily to generate a high rate of a specific task completion; you simply want a consistent pattern of working. One alternative would be to reinforce James every ten minutes if he is on-task. You would observe at the end of each ten-minute interval, and if James is on task, he would be reinforced. This type of reinforcement schedule is called a fixed interval schedule.

**Variable Interval.** If the replacement behavior is followed by a reinforcer after there has been an average of "X" amount of time, then the behavior is on a variable interval schedule of reinforcement, abbreviated "VI." This schedule is similar to an FI schedule, except the time intervals vary and average out to a certain value. If, for example, one interval is 15 minutes in length, another is 45 minutes, another is 30 minutes, and a fourth is 60 minutes, the average interval duration is \((15 + 45 + 30 + 60) \div 4 = 37.5\) minutes.

The fixed interval schedule initially included in the plan intends to increase James' on-task performance, but over a period of time, James may learn to work only toward the end of each ten-minute interval. When he realizes it doesn't matter how hard he is working during the first nine minutes, he may start taking nine-minute breaks, followed by working for a minute until he is reinforced, and then take another break. An alternative schedule for helping James acquire consistent on-task performance would be to reinforce him after varying periods of time which were spaced unpredictably. On the variable
interval schedule, James would be reinforced if he was on-task after six, 13, nine, 12, five, and 15 minutes, etc. The time between reinforcement opportunities varies in an unpredictable way. The only way James can be sure to receive each reinforcement is to perform consistently.

**Effects of Reinforcement Schedules on Behavior.** Different schedules of reinforcement have different effects on when and how often behavior occurs. This chart summarizes the typical effects of various schedules of reinforcement with the implications for plan designers.

<table>
<thead>
<tr>
<th>Schedule</th>
<th>Result —Rate of Behavior</th>
<th>Long Term Effect on Behavior</th>
<th>When to Use</th>
</tr>
</thead>
<tbody>
<tr>
<td>Continuous Reinforcement (CRF)</td>
<td>Frequent &amp; without much hesitation</td>
<td>May continue as long as reinforcement is available</td>
<td>When teaching a new behavior. When increasing an already existing behavior which is not occurring frequently enough.</td>
</tr>
<tr>
<td>Every response</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fixed Ratio (FR)</td>
<td>High. Sometimes a pause following the</td>
<td>Rapid drop in behavior when reinforcers faded</td>
<td>If a behavior has been taught on a CRF schedule &amp; less reinforcement is needed to maintain the behavior. When the person can perform the behavior, but it is not occurring as often as desired.</td>
</tr>
<tr>
<td>Predictable Based on number of</td>
<td>responses</td>
<td></td>
<td></td>
</tr>
<tr>
<td>responses</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fixed Interval (FI)</td>
<td>Uneven performance, near or after the</td>
<td>Gradual drop in behavior when reinforcer faded</td>
<td>When behaviors do not occur frequently enough, and when they do not need to occur more than once every &quot;X&quot; amount of time.</td>
</tr>
<tr>
<td>Predictable Based on time</td>
<td>the end of the time interval</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Variable Ratio (VR)</td>
<td>High rate of responding</td>
<td>Behavior resistant to change -- Easy to fade reinforcers</td>
<td>VR schedules of reinforcement are usually better to use if a pause in behavior is not wanted.</td>
</tr>
<tr>
<td>Unpredictable Based on # of</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>responses</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Variable Interval (VI)</td>
<td>Steady rate of behavior.</td>
<td>Resistant to change -- Easy to fade reinforcers</td>
<td>When a behavior should occur often, but staff are unable to be around all the time to reinforce the behavior.</td>
</tr>
<tr>
<td>Unpredictable Based on time</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**In summary:**
- Use continuous reinforcement when teaching new replacement behaviors or increasing the frequency of existing behaviors.
- Fade reinforcement to a ratio or interval schedule as soon as possible.
- Use variable schedules for long-term maintenance of replacement behaviors.
- Use variable ratio schedules for high rate of responding and variable interval schedules for steady rate of responding.
Chapter 3 Study Questions

1. More often than not, challenging behavior is evidence of a ___________.

2. The goal of the PBS plan is to teach the person _______ that are appropriate ways to meet his or her needs, promote __________, and enhance _______ to people and activities.

3. What problem can occur if the team does not identify a replacement behavior to teach/encourage?

4. Chose the Correct Answer: Skills selected to replace challenging behavior _____.
   a. have to receive the same payoff or reinforcing event that the challenging behavior is currently serving
   b. must allow the person to obtain something important OR get out of something unwanted.
   c. needs to be easier and more efficient than the challenging behavior
   d. all of the above

5. What additional criteria need to be considered when selecting replacement skills for individuals with cognitive disabilities?

6. Chose the Correct Answer: Systematic instruction involves using individualized:
   a. instructional cues/prompts.
   b. effective teaching methods (e.g., task analysis, shaping and fading procedures).
   c. feedback (error correction and reinforcement).
   d. all of the above.

7. __________ prompting strategy has been shown repeatedly through applied research to be the most effective way to determine the amount of support to provide a learner.

8. The most important criteria when selecting prompts is to match the prompt to the _____ and ______ _____ of the individual supported.

9. Whenever prompts are used to teach new behavior, prompts need to be ______ as soon as possible.

10. How can plan authors ensure that staff will fade prompts as the person learns?

11. What are the major advantages and disadvantages of naturalistic teaching?

12. How can we include plans for generalization in the PBS plan?
13. What are three ways to develop a good teacher-learner relationship before attempting to teach?
   a. 
   b. 
   c. 

Match the term with its description: (Terms can be used more than once.)

<table>
<thead>
<tr>
<th>Term</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shaping</td>
<td>15. The person demonstrates a skill in a variety of settings, during a variety of activities, and in the presence of many different people.</td>
</tr>
<tr>
<td>Modeling</td>
<td>16. The learner is given a chance to imitate the behavior. The person is provided feedback that specifies what was done correctly and what to change.</td>
</tr>
<tr>
<td>Conditioning</td>
<td>17. Allows for practice to take place in a safe, artificial setting before the skills must be used in the actual setting.</td>
</tr>
<tr>
<td>Preference-Based Teaching</td>
<td>18. A systematic approach for helping people with developmental disabilities enjoy learning without challenging behavior.</td>
</tr>
<tr>
<td>Rehearsal</td>
<td>19. An ineffective consequence (natural reinforcer), immediately follows the behavior you are teaching and the natural consequence is immediately followed by the effective consequence.</td>
</tr>
</tbody>
</table>

20. General instructions to support learning in one-to-one teaching include:

   a. Find a way to offer at least one ________ before and after each teaching session.
   b. Avoid interrupting a ________ activity to conduct a teaching session.
   c. If the learner prefers a consistent routine from day to day, build ______ into the timing of teaching sessions.
   d. _____ as many distractions as you can, especially when you first begin using one-to-one sessions.
e. Begin each session with a skill or a step in the skill that the learner performed _____ in the past.
f. Do not begin if the person is engaging in a ________________ behavior.
g. Use the teaching session to ____ appropriate behaviors other than those targeted in the formal teaching plan.
h. Record ____ after each trial.
i. _ if the person shows signs that he or she wants to end the session.
j. Whenever possible, end the session after a_____ trial.

21. What should staff do when a learner with a cognitive disability makes an error during a teaching session?

22. If a replacement behavior is reinforced each time it occurs, then the behavior is on a ___ schedule of reinforcement

23. If a behavior is reinforced every "X" number of times the behavior occurs, then the behavior is on a ______ schedule of reinforcement.

24. If a behavior is reinforced on an average of every "X" number of times the behavior occurs, the behavior is on a __________ schedule of reinforcement.

25. On a __________ schedule of reinforcement, the person is reinforced for a specific behavior after a fixed amount of time has passed.

26. If the replacement behavior is followed by a reinforcer after there has been an average of "X" amount of time, then the behavior is on a _____ _ schedule of reinforcement, abbreviated "VI."

**Match the term with its description:** (Terms can be used more than once. Some questions have more than one answer.)

<p>| | |</p>
<table>
<thead>
<tr>
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<tbody>
<tr>
<td>A. Variable Interval</td>
<td></td>
</tr>
<tr>
<td>B. Continuous Reinforcement</td>
<td></td>
</tr>
<tr>
<td>C. Variable Ratio Schedule</td>
<td></td>
</tr>
</tbody>
</table>

___27. When the person can perform the behavior but it is not occurring as often as desired.

___28. When a behavior should occur often but when staff are unable to be around all the time to reinforce the behavior.

___29. When teaching a new behavior. When increasing an already existing behavior which is not occurring frequently enough and a pause in behavior is not wanted.

___30. Behavior resistant to change - Easy to fade reinforcers.
Chapter 4: Prevent and Respond to Challenging Behavior

Objectives:
After completing this chapter, staff will be able to:

- Define reactive support strategies
- Define consequences including punishment
- State the desired outcomes of consequence interventions.
- Define informed consent.
- Guidelines for selecting response interventions
- Define consequence interventions
- Develop a crisis support plan.

1. Define Reactive Support Strategies

Reactive strategies are actions, responses and planned interventions used in response to identifiable challenging behavior. Reactive strategies are intended to stop or establish control over a situation so that risk associated with the behavior is minimized or eliminated.

<table>
<thead>
<tr>
<th>Review</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Proactive Strategies</strong> are interventions which are used on an ongoing basis in an attempt to reduce the likelihood of occurrence of the challenging behavior</td>
</tr>
<tr>
<td><strong>Reactive Strategies</strong> are interventions which are used only once the behavior occurs. They are consequences (or reactions) to the behavior.</td>
</tr>
</tbody>
</table>

Sometimes, we cannot prevent a challenging behavior from occurring. While attempting to teach a replacement behavior, despite our best efforts, the challenging behavior occurs (hitting, kicking, spitting, swearing, self-injury, screaming) and we need to react. **Reactive Support Strategies** are actions taken to:

1. Keep the individual and other people safe.
2. De-escalate tension or aggression.
3. Prevent further escalation, harm or injury while getting back to normal.

**Reactive Support Strategies may include:**

- **Offering reassurance** – Jamie hesitated to get his food items out of the fridge himself, so staff offered to help get him started by opening the door with him. Mary’s staff knew she was afraid of stairs, so they offered to have a hand railing installed, even though there were only two steps.
• **Reducing demands or expectations** – Cord became agitated when he had to share the Wii and take turns. So, staff had him play with only one other person, someone he chose to be with and asked him how many turns he wanted before switching. Gradually, he learned to take every other turn.

• **Using distraction.** Mark roared out his frustration and pushed back from the table, ready to go after Marilyn whom he dislikes. The staff tossed him his jacket, momentarily distracting him while Marilyn scooted out of the room.

• **Using approved physical interventions.** Pete and Sue assisted Todd to sit in an extra rolling chair and wheeled him out of the room and into the bathroom, so he could vent in private.

A physical intervention may be used when:

The intensity of a behavior creates an **emergency situation** that could not have been anticipated in which the likelihood that someone will be seriously hurt or injured is immanent.

The intensity of a behavior creates a **crisis situation** that occurs after preventative strategies were tried correctly but were unsuccessful in de-escalating a situation as part of an approved behavior intervention plan for which the person’s right to due process was met.

The use of physical holds, seclusion or mechanical or chemical restraint may be necessary in an emergency or a crisis situation but are not effective ways to change behavior over the long term and may not be used as punishment or because steps to provide positive behavioral support were not taken.

Plan Reactive Supports.

Even when the FBA and the PBS plan are closely aligned, positive approaches will not immediately overcome the person’s history of “success” meeting their needs through challenging behavior. It takes time (perhaps a few weeks) for the person to learn that the replacement behavior will work as well as the challenging behavior they have used in the past.

In addition, the challenging behavior has still been learned and remains a part of the person’s repertoire of options. He or she may revert to using that behavior in the future, even if it has not been seen in a while. In either of those cases, staff may need to intervene.

Many challenging behaviors can be predicted. By the time an FBA has been completed the team can reasonably predict when or if a person is likely to engage in aggression or self-injury. It is the responsibility of the team to identify as many situations as possible that are likely to occur and provide staff with a **crisis intervention plan** while replacement behaviors are being learned. It’s not good enough to provide general rules or procedures that staff should apply in the event of a challenging behavior.

A comprehensive support plan should include information about how to respond when the person is calm, what to do when early warning signs are observed, if the behavior is escalating further and
finally when a crisis occurs. The chart below shows one such plan.

<table>
<thead>
<tr>
<th>What is happening</th>
<th>What that Looks Like</th>
<th>What Staff Can Do</th>
<th>What NOT to Do</th>
</tr>
</thead>
<tbody>
<tr>
<td>The train is in the station.</td>
<td>Jeff chats with others, completes tasks, asks for help.</td>
<td>Reinforce frequently; prevent triggers.</td>
<td>Leave Jeff alone for more than 5 minutes.</td>
</tr>
<tr>
<td>The training is powering up</td>
<td>Jeff stops chatting; he begins to mutter under his breath, he sighs heavily.</td>
<td>Ask Jeff how you can help; smile, ask non-preferred people to sit elsewhere.</td>
<td>Repeat prompts, insist on Jeff doing tasks your way,</td>
</tr>
<tr>
<td>The train has left the station</td>
<td>Jeff swears or throws items or bangs his fist on the table.</td>
<td>Point to Jeff’s safe place, do not speak to him. Stand an arm’s length away.</td>
<td>Try to coax Jeff to work more or tell you what’s wrong.</td>
</tr>
<tr>
<td>The train is going over a cliff</td>
<td>Jeff slams his head into the wall or grabs a person’s shirt and pulls the person to the floor.</td>
<td>Call for help. Use a peel as necessary to release others from a grip. Remove items from the table or immediate area. Ask other people to leave the area. Escort Jeff to his safe area without touching him. Say: Let’s go, Jeff.</td>
<td>Try to lay hands on Jeff, put him in some kind of hold or raise your voice.</td>
</tr>
</tbody>
</table>

In addition, a comprehensive support plan may actually include scripts or how to respond to the most common and dangerous situations such as (e.g. If Jeff seems agitated, help him get home in a staff car instead of the van; If a lot of people will be making a transition, encourage Jeff to leave a few minutes ahead of the group; If a child begins to cry or tantrum in the store (Jeff has auditory sensitivities), remind Jeff that he can move away with you).

2. Define Consequences Including Punishment

What About Consequences? One of the most challenging aspects of using responsive support comes when we realize that a person’s behavior was intentional. The person is deliberately using a specific set of behaviors to communicate, to escape, to protest, to meet a need. In those situations, when the behavior is negative or counter-productive, we almost automatically think “He got away with that. There ought to be a consequence.”

We make these kinds of assumptions for two reasons:

1. We believe that a punishment should always follow bad behavior because it will make the
person less likely to try that again. We have seen punishments work before. It worked with us.

2. We believe that if we don’t provide a consequence, the person will continue to use bad behavior and we could have prevented that but didn’t.

Unfortunately, research clearly shows that:

a. **Punishment does not act as a deterrent for behavior.** In fact, just the opposite occurs. When punished, people often become angrier and resentful. Punishment by itself, does not lead to remorse and a change in behavior. Remorse comes from empathy or an attempt to please others. We seldom feel like pleasing someone if they are punishing us. You probably did not learn better behavior because you were punished but because you wanted to please an adult in your life or to find a more effective way to meet your own needs.

b. **Punishment does not teach people alternate ways to get a need met.** If the person’s behavior was their best attempt to obtain something they desired or avoid something they disliked, punishing the behavior does not remove that need.

c. **Punishment jeopardizes relationships.** The more you are associated with negative experiences, the less the other person will want to cooperate or spend time with you. Beliefs that you hold that the punishment is “for the person’s own good,” will not lead to a realization that you reacted because you care. Instead, punishment is likely to be misinterpreted as “that staff person doesn’t like me.”

d. **Punishment often leads to more punishment.** When consequences are written into a plan, staff often begin to use it without authorization. For example:

> Chuck had a restriction placed on the use of his cell phone. He could only use the cell phone at certain time periods because otherwise he became so engaged in the phone use that he would not participate in a daily routine. However, Chuck’s staff began to delay giving him his phone at the specified time unless he had showered and made his bed. Chuck’s plan did not authorize that reaction, but staff made the leap that if one kind of punishment was OK, so was another. Soon Chuck was locking staff out of his apartment.

d. **Ethically, punishment can only be used if it has proven to reduce a behavior.** Even if that is the case, plans must include time limits and plans to move to a less intrusive intervention.

3. **State the Desired Outcomes of Consequence Interventions**

Our goal is not to control behavior. Our goal is to teach people self-discipline. Acting to avoid a punishment is not the same as doing the right thing in the moment. We want people to become successful in meeting their needs and increase their quality of life and opportunities to participate. Nathan Ory (2015) describes how to maintain positive relationships with people when responding to
challenging behavior. challenging:

Become an expert at prevention and guidance. Use strategies to prevent crisis incidents. Show the individual how to recognize when they are having difficulty, such as when they feel confused, or if there are too many demands or difficult tasks. Teach people how to ask for assistance, take a break, or calm themselves. Learn to recognize dangerous situations. Offer the person a way out.

Adjust expectations to the person’s realities. Change expectations to deal with the person’s areas of strength and success. Work with the person in the manner to which he best responds. That may mean accepting an inability to learn by traditional methods. We need to identify what is achievable for the person and adjust our approach to accommodate his needs. While the person is learning, we provide the support needed for him to be successful. We cannot expect the person to cope by using skills which he may have only partially learned.

Try to understand the reason behind the behavior. Don’t assume that the behavior is intentional or the result of deliberate malice. Assume the person is doing the best he can and may simply not know how to cope with the situation. Maybe he’s forgotten and needs a reminder. Maybe he doesn’t know what he is supposed to do and needs some instruction. Maybe he needs some motivation to overcome reluctance or fear. Maybe he gets confused when upset and gets stuck in an endless loop because he doesn’t have a way out. If all of these explanations for the challenging behavior have been ruled out and the behavior is intentional the person might still need to learn a replacement behavior that meets the same need.

4. Define Informed Consent

An agency must obtain the informed consent of an individual or their legal decision-maker before using an intervention plan which:

(1) exposes the individual to significant risks;
(2) has a potentially irreversible impact; or
(3) intrudes physically, psychologically, or socially upon the person.

There are three important aspects to informed consent: a) the “capacity” of the person, b) the amount of information provided, and c) the “voluntariness” of the individual’s decision.

a. “Capacity” is the ability of a person to select and express his or her choice. This is demonstrated by a person having made decisions in the past which concern his own welfare. Many people need support to make challenging decisions. Needing support does not mean a person lacks capacity. Only a court of law can determine if a person lacks the capacity to make different kinds of decisions. If a court has determined that a person does not have this capacity, it is up to a legal representative to provide the
consent. The fact that a person an intellectual disability does not mean that he or she lacks this capacity.

b. “Information” about the proposed procedures must be provided before the person gives consent. Adequate information must include a description of the procedures, a description of alternatives, the benefits and risks of the procedures, and some idea of the expected outcome. The person must also be told if any experimental techniques are involved. This information has to be given in a manner which is fully understood by the person.

c. “Voluntariness” is the absence of any overbearing coercion, duress, threats, inducements, and undue influence. If the consent is not voluntary, it is obviously invalid. Even if a legal decision-maker gives informed consent, the person with a disability still has a right to assent (say yes or no) to a procedure unless due process in the form of a hearing by the Human Rights Committee has resulted in the agency’s right to use a more restrictive technique.

Consent is not permanent. A person can, at any time, withdraw his/her consent and discontinue restrictive procedures. It is always important to have evidence of consent in writing.

**Procedures for Behavior Reduction**

Teams can increase the effectiveness of teaching social and communication skills by minimizing reinforcement for challenging behavior and increasing reinforcement for a new replacement behavior. When it isn’t possible to prevent challenging behavior, reactive support strategies (those that occur after the behavior has already occurred) are used to:

- Minimize reinforcement for challenging behaviors
- Maximize reinforcement for desired and replacement behaviors
- Redirect the person toward alternative responses
- Ensure safety of the person and others

Consequences should be respectful (avoid humiliating the person); reasonable (taking away an opportunity to attend the State Fair for swearing is not reasonable); and provide opportunities for the person to practice the desirable behavior more often.

**Principles and Requirements Guiding the Selection of Reactive Strategies**

Reactive support strategies that are considered intrusive or aversive require permission before implementation. Typically, these require consent from the individual and their legal decision-maker, agreement by the person-centered planning team, and approval by the Behavior Intervention Committee and in some cases the Human Rights Committee. Also, there are typically time limits and prescribed reviews of approved plans that involve aversive interventions. Each agency will have a listing of procedures arranged in a hierarchy of approved interventions, a list that requires permission, and a list of prohibited procedures. These lists are based on best-
practice, agency mission and values, accreditation standards, and state laws.

5. Guidelines for Selecting Response Interventions.

There are times when staff need to do something to address the behavior while other positive solutions are sought. In these situations, it is best to use interventions that are well thought out, specifically taught to the staff, and practiced in advance. If this support is not provided to staff, they will fall back on what they know best when the challenging behavior occurs because doing nothing is often not an option. In the worst-case scenario, they may retaliate in an abusive manner in their attempt to gain control of a situation. In these situations, the person served suffers but we also may lose a staff person who could have been more successful if we had done a better job of preparation.

Basic principles guide the selection of strategies for responding to challenging behavior (Alberto & Troutman, 2013). When selecting an intervention procedure, an effective procedure that is the least intrusive should be selected. If the choice is between a less intrusive strategy that is not likely to be effective, and a slightly more intrusive but effective strategy, the effective procedure is more appropriate.

For example, if Sam hits the person next to him in line if he has to wait too long, someone might suggest extinction procedure. However, it is hard for most people to not respond at all when hit. Therefore, the extinction plan is not likely to be effective, nor would it be safe to ignore hitting in some cases. Of course, we would try to avoid having Sam stand in line when possible but in this situation, it might be better to include blocking, a more restrictive procedure to prevent injury and to reduce the likelihood that Sam would be reinforced by the reaction of the person who is hit (crying, yelling, etc.).

The second principle is the principle of functional alternative – when any behavior is to be reduced or eliminated using any procedure, a functional, appropriate alternative should be taught simultaneously.

Movements to more intrusive interventions must be data-based. There must be evidence that less intrusive procedures were implemented consistently and were ineffective in reducing the challenging behavior. Merely having a procedure in a plan for a period of time does not mean it was implemented correctly and consistently.


Differential Reinforcement Procedures: Differential reinforcement is defined as the reinforcement of one behavior and the withholding of reinforcement for another. Reinforcement is used to differentiate or separate appropriate behavior from challenging behavior by increasing one while decreasing the other. There are six strategies that can be used to apply this basic principle.
<table>
<thead>
<tr>
<th>Differential Reinforcement of:</th>
<th>Definition</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Other behaviors (DRO)</strong></td>
<td>Ignore the challenging behavior while reinforcing any other appropriate behavior. Reinforce the absence of the challenging behavior.</td>
<td>Reinforce Sam with a sip of milk for periods of time in which he did not bang his head on the wall.</td>
</tr>
<tr>
<td><strong>High rates (DRH)</strong></td>
<td>Reinforce the individual after the appropriate behavior has occurred at a predetermined high rate.</td>
<td>Increase production at a job task. Reinforce Susan for busing X number of tables in the cafeteria.</td>
</tr>
<tr>
<td><strong>Low rates (DRL)</strong></td>
<td>Reinforce after the behavior occurs at a predetermined low rate.</td>
<td>Reinforce Joe for going on a break for a cigarette only twice instead of four times a day.</td>
</tr>
<tr>
<td><strong>Alternative behavior (DRA)</strong></td>
<td>Ignore the target behavior and reinforce an alternative behavior. Each time the target behavior occurs, the person is redirected to an alternative behavior. The person is reinforced for demonstrating the alternative behavior.</td>
<td>When Susan picks a leisure activity that is sedentary, staff suggest 3 activities that include movement (going for a walk, exercise bike, cleaning task, etc.) Susan is reinforced if she picks one of the 3 activities that would provide exercise.</td>
</tr>
<tr>
<td><strong>Incompatible behavior (DRI)</strong></td>
<td>Reinforcing an appropriate behavior that actually interferes with the challenging behavior &amp; ignores the inappropriate behavior</td>
<td>If screaming is targeted for reduction, sitting quietly is reinforced, because it is impossible to sit quietly and scream at the same time.</td>
</tr>
<tr>
<td><strong>Communicative behavior (DRC)</strong></td>
<td>Ignoring challenging behavior and reinforcing a communication skill that leads to a needed item, activity, or alternative.</td>
<td>If tipping the work table when frustrated, out of supplies, or tired of a task is the behavior targeted for reduction, reinforcement is provided for signing “Help.”</td>
</tr>
</tbody>
</table>

**Figure 7.1 Differential Reinforcement Procedures (Adapted from Utah State Office of Education, 2002)**

**How to Implement:**
1. Identify the target behaviors to increase or decrease. For DRO, DRI, DRA, and DRC, there will be a behavior to decrease. For DRH, there will be a specific behavior to increase. Collect data for at least three days to determine the baseline data.
2. Select alternative (DRA), incompatible (DRI), or communicative behaviors (DRC) to be taught.
3. Determine the time interval for the behavior to occur. Set smaller time intervals initially.
4. Set the criterion (the number of behaviors that must occur during a specified time interval) to earn the reinforcer.
5. Provide detailed instructions for the staff on how they should ignore the challenging behavior and reinforce the alternative, incompatible, other, or communicative behaviors.
6. Design the data collection method.
7. Train staff on the intervention and data collection procedure.
8. Implement the intervention, observe staff performance, and provide supportive feedback.
9. Monitor data, evaluate the effectiveness, and revise if necessary.

When To Use/Not Use:
• These options are the first choice because they are employing a positive (reinforcement) approach to behavior reduction.
• This procedure takes time. If the challenging behavior is very dangerous another procedure might be a better choice.

Potential Problems & Solutions:
• The behavior being ignored may get worse before it gets better.
• When selecting an alternative or incompatible behavior, select something functional and relevant for the person being supported.
• If the person engages in the challenging behavior very frequently, it can be difficult to find opportunities to reinforce.

Redirection: Redirection is described as guiding the person to a more positive interaction. Redirection can involve introducing a novel person or preferred activity. Other forms of redirection include changing the way a task is presented or changing the prompts being used. The staff person uses suggestion, positive motivation, even humor as prompts for an alternative behavior. The purpose is to provide opportunities for the person to receive positive feedback for appropriate behavior without confronting him about the challenging behavior (Freeman, Britten, McCart, Smith, & Sailor, 2000).

How to Implement:
1. Identify challenging behaviors that will need redirection and situations where redirection may be needed. Collect data for at least three days.
2. Identify:
   a. highly preferred activities, people, and topics that successfully divert this person
   b. approaches that successfully divert the person from challenging behavior (i.e. humor, suggestion, level of prompts, etc.)
3. Provide detailed instructions for the staff on how they should non-confrontationally divert the person’s behavior to a familiar activity in which they are likely to engage and be successful. Staff should avoid calling attention to the challenging behavior. Short simple directions and positive statements of what to do (without being directive) are used. (i.e., “Let’s play checkers.”) Positive reinforcement for engaging in
the alternative behavior is provided.
5. Determine the data collection method.
6. Train staff on the intervention and data collection procedure.
7. Implement the intervention, observe staff performance, and provide supportive feedback.
8. Monitor data, evaluate the effectiveness, and revise the intervention plan if necessary.

**When To Use/Not Use:**
- Avoid using redirection without considering why the individual is engaging in the challenging behavior. If the function of the person’s challenging behavior is to avoid demands or requests, redirection with demands and requests could actually increase challenging behavior.
- Redirection is often used with extinction procedures.

**Potential Problems & Solutions**
- It can be difficult to find opportunities to reinforce if the person engages in the challenging behavior very frequently. The staff may need to observe small opportunities to reinforce a person by temporarily decreasing expectations (increase support provided for a task the person would ordinarily do without assistance).
- Staff may view this approach as reinforcing challenging behavior and need to be carefully trained so that they are providing reinforcement for the alternative behavior.

**Interruption:** Interruption involves assisting a person to stop the challenging behavior or to minimize the harm caused by the challenging behavior. Interruption consists of well-timed supportive techniques that stop the escalation of strong emotions.

**How to Implement:**
1. Remain calm. Do not attend to the challenging behavior.
2. Divert attention away from the conflict.
3. Suggest a preferred activity or topic - one that this person rarely refuses, something the person always likes to do or a favorite topic.

**When To Use/Not Use:**
- Not all behaviors require interruption. Many can be ignored or redirected.
- Use if interrupting will prevent escalation to a more problematic or crisis situation.

**Extinction:** Extinction is defined as withholding reinforcement for a behavior that was previously reinforced. This abrupt withdrawal of reinforcement results in a decrease of the behavior’s occurrence until it stops occurring altogether. However, the behavior must be consistently ignored by all people and in all situations. The behavior that stops occurring because the reinforcer no longer follows it, is said to be “extinguished.”

**How to Implement:**
1. Identify challenging behaviors to be extinguished and collect data on the behavior for at least three days.
2. Identify appropriate replacement behaviors.

3. Provide detailed instructions for the staff on how they should ignore the challenging behavior.
   a. Break eye contact
   b. Do not comment on the behavior
   c. Move away

4. Provide detailed instructions on how to reinforce the desired replacement behavior.

5. Determine the data collection method for recording the frequency of the challenging behavior and any consequences to the challenging behavior.

6. Train staff on the intervention and data collection procedure.

7. Implement the intervention, observe staff performance, and provide supportive feedback.

8. Monitor data, evaluate the effectiveness, and revise the intervention plan if necessary.

**When To Use/Not Use:**

- Extinction interventions have been used for different types of challenging behaviors including inappropriate social behaviors, noncompliance, aggression, and self-injury.
- Extinction is not effective if the person wants to be ignored.
- Some behaviors cannot be safely ignored. If the behavior is dangerous to the individual or others, a more intrusive response may need to be implemented until the person can be taught some alternative coping strategies for situations that precipitate the challenging behavior.

**Potential Problems & Solutions**

- Many staff members assume that it is their responsibility to respond when challenging behaviors occur. They believe that the corrective statements will teach the person that the challenging behavior is wrong. It may be necessary to help them understand that negative attention can be reinforcing and that by ignoring challenging behavior they are sending a message that the challenging behavior has little value and will no longer have the result that it had in the past.

- If more than one reinforcer is maintaining a behavior and not all reinforcers are eliminated, the behavior may not extinguish. If staff do not provide attention (consequence) to the challenging behavior but other people do provide attention (reinforcer), the behavior may not decrease. This is true for all behaviors and their reinforcing consequences.

- Staff should be cautioned that when a behavior is initially put on extinction, the immediate result may be an increase in the behavior’s level of occurrence (extinction burst). The long-term effect is a complete suppression of the behavior. If consistently implemented, however, the procedure has the effect of decreasing the future likelihood of the behavior. It may take time for the behavior to completely disappear.

- Another immediate result may be that the person will replace the challenging behavior with another challenging behavior in order to meet the need that the challenging behavior served. For example, swearing to obtain staff attention or avoid a task may be replaced by
hitting. Therefore, it is necessary to pair extinction with interventions that teach appropriate communication and social skills to replace the challenging behavior and to ensure the person will have access to the reinforcer.

- Sometimes after a behavior decreases due to a successful extinction intervention, the behavior will spontaneously increase. Staff need to know the importance of continuing the extinction procedures (ignoring the challenging behavior and reinforcing the appropriate behavior) until the behavior again decreases.
- When the challenging behavior decreases, it is easy to forget to reinforce the replacement behavior. While it is appropriate to fade the reinforcement to a level that naturally occurs, the person will need to receive reinforcement or he will likely try to find another way to obtain it.

**Social Disapproval:** Social disapproval consists of short statements informing the person that the behavior in which he/she is engaging is inappropriate and it should stop.

**How to Implement:**
1. Identify challenging behaviors and collect data on the behavior for at least three days.
2. Identify appropriate replacement behaviors.
3. Provide detailed instructions for the staff on how they should use social disapproval when the challenging behavior occurs.
   a. As soon as the challenging behavior occurs, state the person’s name and calmly say “no,” “do not,” or “stop” and then specifically identify the challenging behavior.
   b. Identify the behavior that the person should be doing instead.
4. Train staff on the intervention and data collection procedures.
5. Implement the intervention, observe staff performance, and provide supportive feedback.
6. Monitor data, evaluate the effectiveness, and revise the intervention plan if needed.

**When To Use/Not Use:**
- Not all behaviors require social disapproval. Many can be ignored or redirected. Others, are a single, isolated event that occurs once and is done.

**Potential Problems & Solutions**
- If possible, the social disapproval should be given only once. Repeating the statement before the person complies may teach the person to ignore the initial statement. In addition, repetition may be perceived as attention by the individual and may result in reinforcing the behavior.
- The comments must be brief and include no derogatory comments about the person. These are unnecessary and provide poor modeling for the person and others.
- If the social disapproval does not immediately follow the behavior it will not be effective.
- Staff must realize that moralizing or giving explanations at the time of the social disapproval may prompt arguing. It also results in attention that may be reinforcing for the individual. If explanations are needed, they should be given at a neutral time.
**Response Cost:** Response cost is a procedure in which a specific amount of available reinforcers is contingently withdrawn (following a response) in an attempt to decrease behavior. Typically, a token economy is used in which points, tokens, or checkmarks that can be traded in for reinforcing objects or events are taken away.

**How to Implement:**
1. Specify the challenging behaviors and collect data on the behavior for at least three days.
2. Decide on a method to provide reinforcers.
   a. Often a token economy is used where the person earns the tokens, points, checkmarks for specified appropriate behavior or the absence of challenging behavior.
   b. Another method is to give the person a predetermined number of points, chips or other forms of reinforcers.
3. Explain the response cost system to the person receiving support. Helping the person clearly understand the procedure will prevent the need for explanations when the challenging behavior occurs.
4. Provide detailed instructions for the staff on how they should use response cost when the challenging behavior occurs.
   a. As soon as the challenging behavior occurs, use a brief statement telling why the person is losing the reinforcer.
   b. State the response cost (i.e., you lose 2 tokens).
   c. Carry out the response cost. If points are lost, actually take points away. If an activity is lost, make sure the activity is taken away, etc.
5. Train staff on the intervention and data collection procedures.
6. Implement the intervention, observe staff performance, and provide supportive feedback.
7. Monitor data, evaluate the effectiveness, and revise the intervention plan if necessary.

**When To Use/Not Use:**
- Behaviors targeted in response cost systems must be easily observed, countable, and have a specific beginning and end.
- Avoid using in situations that will draw negative attention to the person. Procedures used in settings where others are present should be unobtrusive.

**Potential Problems & Solutions**
- If the person is allowed to run out of reinforcers or go in the hole, all motivation for appropriate behavior will be lost.
- It is critical that the response only be implemented for the target behavior for this specific individual. Staff who use response cost may have a tendency to use it for any challenging behavior or expand the procedure to other individuals they support.

**Blocking:** Blocking is a movement that immediately hinders, without restraining, another person’s behavior from continuing. For example, a staff member might obstruct a person’s arm (block) when the person is attempting to hit (behavior) himself or another person.
**How to Implement:**
1. Identify challenging behaviors where blocking will be used.
2. Train staff in the specific blocking procedure and ensure that they can perform the procedure which usually includes the following:
   a. An instruction (e.g., “Stop hitting,” “Don’t kick.”)
   b. A physical defensive maneuver used to impede continuation of behavior. Staff may use their hands, arms, legs, or the entire body for blocking.

**When To Use/Not Use:**
- Blocks are usually used in extreme cases when a possibly dangerous or damaging behavior occurs after other consequences, such as social disapproval, were ineffective.

**Potential Problems & Solutions**
- It would be best to get help if blocking might prompt a fight or self-abuse. If staff cannot carry out the procedure safely, they should use other methods to protect others and themselves (move to a safer area).
- If blocks do not decrease the future likelihood of a behavior’s occurrence, they may be paired with other consequences such as response cost or time-out.

**Time Out:** Time-out is a consequence which involves the removal of a person from a reinforcing situation and placement into a non-reinforcing situation for a specific amount of time. If a person is hitting others (behavior) while watching TV, the person may be sent from the living room to another area where he must stay for a specific period of time (time-out).

**How to Implement:**
1. Specify the challenging behavior which will prompt the time-out procedure.
2. Describe the specific details for implementing the time out procedure. Time-out typically includes the following components:
   a. A statement that identifies why the person must go to time-out.
   b. Instructions to go to time-out. Sometimes, just a quiet corner in a room is designated as a time-out area because of the low probability of receiving reinforcement.
   c. Procedures for staff if the individual does not go to time-out voluntarily.
   d. Set the timer and explain how long he is to remain in time-out. It is important that the person be told how long he is to remain in time-out and then let him leave after the given duration. Length of time-out is determined by the team.
   e. Ignore the person during the time-out. Talking can be reinforcing.
   f. When the timer rings, the person should be told he may leave time-out. If, however, the person is engaging in challenging behavior when the timer rings, the timer should be reset for a specified amount of time.
3. Train the staff in how to implement the procedure.
When To Use/Not Use
- While time-out can be used effectively, it is a restrictive technique and its use is carefully regulated. Agency policies will define if, when, and how it may be implemented.
- Do not use time-out if the function of the challenging behavior is to escape a task, person, event, demand, or other environmental characteristic.

Potential Problems & Solutions
- Improper use of time-out can be both ineffective and unethical.
- Time-out will be ineffective if the placement of the individual into a neutral time-out area is something the individual prefers.
- If the setting where the individual’s challenging behavior occurs is not a place that the person likes, leaving will reinforce the challenging behavior.
- If the setting where time-out takes place is more desirable (less commotion, fewer demands, access to music, activities, or food) to the person than the environment where the challenging behavior occurs, placement in time-out will be reinforcing.

Restraint: Restraint is described as partial or total immobilization of a person through the use of drugs, mechanical devices such as leather cuffs, or physical holding by another person (ND Protection & Advocacy Project, 2018).

When To Use/Not Use:
- The use of restraints is carefully regulated by state and federal laws and administrative rules. Guidelines from accreditation bodies also limit the use of restraints.
- Restraints are permitted only when needed to prevent harm to the individual or others. In some agencies, restraints are also permitted when there is threat of severe property damage.
- Use of restraints may be included in a formal behavioral support plan when there is evidence that less restrictive methods have proven unsuccessful; when the target behavior is a danger to people or property; and with consent of the individual and/or their guardian, the team, and the Behavior Intervention and Human Rights Committees.
- Restraints are prohibited in some organizations. It is important for all staff to know the agency’s policies regarding if and when restraints may be used.

Potential Problems & Solutions
- Improper use of restraints can be dangerous to both people receiving support and staff. Staff must be trained before they will be placed in situations that might require the use of restraints. Extreme care should be taken to provide for the safety of the person during the procedure.
- Restraints should never be used to force a person to perform an appropriate behavior. They can only be used to stop a challenging behavior that threatens the health and well-being of the person or others or if it is likely to cause significant property damage.
- A written report must document the use of the restraints. Follow agency policies for
reporting methods and timelines for incidents in which restraints are used.

Other Restrictive Procedures

Any restrictions or limitations of freedom including the use of medication for behavior support are carefully regulated. Certain procedures involving application of aversive stimuli are typically prohibited in community-based settings. Some restrictive procedures may be used in emergencies (imminent danger of harm to people or significant property damage) only if the benefits outweigh the risks of the procedures AND when they are combination with an approved behavioral support plan that has ongoing monitoring of its effectiveness by a human rights and behavior intervention committee. These procedures, if allowed, will be spelled out in agency policies and procedures.


Crisis Intervention: Good crisis intervention plans actually start with preventative strategies based on the functional behavioral assessment discussed throughout this training manual. If staff intervene early in the sequence of a challenging behavior, there may be little need for crisis management. Once an individual begins engaging in really intense challenging behavior, he is experiencing high levels of emotional or physiological arousal. Redirection is more difficult, and the person is less likely to be able to respond to verbal interaction. As a result, when the person receiving support is at the peak of an escalating sequence of behaviors, interventions are focused on safety until redirection is possible again (Freeman, n. d.).

Ory (2007) describes the goal of crisis management procedures: “to control for the client those environments in which he is unable to exercise self-control. Never lose sight of the real goal, which is to prompt, motivate and train the client to use adequate coping strategies and to exercise adequate self-control over his environment and his own ‘crisis behavior.’” He suggests that when staff must provide direct intervention for a challenging behavior they:

- Remain calm.
- Use guidance techniques first (displace, divert, and redirect).
- Accommodate the person’s special needs and disability.
- Respond to chaotic behavior with a prearranged plan for surviving the crisis while bringing challenging behavior to a stop. This may involve removing the person from the problem situation and other approved methods of protecting the person and others from harm including restraint if requirements for its use have been met.
- Interact positively as soon as the client exercises a degree of self-control.
- Follow the plan for supporting the individual to re-enter normal life.

The Institute for Human Development at the Arizona University Center on Disabilities (n.d.) recommends that all crisis management approaches include strategies that staff can use in the context of the individual’s everyday daily life (at home, at work, at the park, or grocery store). The behavioral support plan should provide the following guidance for staff:

Stopping Harm to Self or Others. Whatever the actions of the caregivers, they should be calm,
unemotional, and not use excessive force. Staff need to know:

- When behavior becomes violent or self-injurious, the options the caregiver has to help the individual, while also protecting the rights of others.
- If the person should be removed and how. Where should she go and for how long? Should she be alone or supervised? Should we talk to her or not?
- What the expectations of the person are while she is removed?
- What the expectations of the caregivers are when the person returns.

**Seeking Help from Others.**

- When should the staff seek help from others? Should it be when the individual's behavior has become dangerous or when the caregiver's reactions have deteriorated and are no longer helpful?
- Who should they ask for assistance?
- How should they communicate the need for assistance?
- When/under what circumstances do I call the police? What are the best methods to ensure that they understand the individual and the goals of the behavior support plan?

The strategies for intervention must be based on the motivation for the challenging behavior. Although the behavior support plan for crisis intervention is designed for the individual served, the crisis intervention plan is developed to guide the support staff’s behavior. If the plan doesn’t match the skill level, styles of interaction, and goals of the direct support staff, the plan will/cannot be implemented as written. The plan must be grounded in best practice which includes effective principles of behavior as well as values of the individual and family, and the resources that are available in the environments that the individual frequents (Hanson, R., Wieseler, N., & Lakin, C., 2000).
Chapter 4: Study Questions

1. Behaviorists recommends that plan authors do all of the following except__________.
   a. anticipate every challenging behavior the person has ever done in the past
   b. provide clear instructions for staff to use when challenging behavior occurs
   c. give staff general rules for occasions when a challenging behavior occurs.
   d. include scripts for how to respond to the most common and dangerous situations.

2. Why are punishment procedures generally ineffective?

3. What are the desired outcomes of consequence interventions?

4. Why is it important to include reactive strategies within a positive behavior support plan?

5. When selecting an intervention procedure, an effective procedure that is the __________ intrusive should be selected.

6. When any behavior is to be reduced or eliminated, a__________, appropriate alternative should be taught simultaneously.

7. Movements to more intrusive interventions must be______.

8. Reactive support strategies that are considered intrusive or aversive require_____ before implementation.

9. When the person receiving support is at the peak of an escalating sequence of behaviors, interventions are focused on__________ until redirection is possible again.

10. What is the purpose of a crisis support plan?

11. What are some potential problems with extinction procedures?

12. What points would you share during coaching on “Social Disapproval” procedures?

13. What are the essential components of crisis support plans?

_True and False_
14. If the choice is between a less intrusive strategy that is not likely to be effective, and a slightly more intrusive but effective strategy, the effective procedure is more appropriate.

15. If possible, the social disapproval should be given only once.

16. Moralizing or giving explanations at the time of the challenging behavior may prompt arguing. It also results in attention that may be reinforcing for the individual. If explanations are needed, they should be given at a neutral time.

**Match the term with its description or outcome: (Terms can be used more than once.)**

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
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</thead>
<tbody>
<tr>
<td>A. Redirection</td>
<td>17. Reinforcement of one behavior and the withholding of reinforcement for another</td>
</tr>
<tr>
<td>B. Differential Reinforcement</td>
<td>18. Well-timed, supportive techniques that stop the escalation of strong emotions</td>
</tr>
<tr>
<td>C. Interruption</td>
<td>19. Withholding reinforcement for a behavior that was previously reinforced</td>
</tr>
<tr>
<td>D. Extinction</td>
<td>20. Preferred strategy that employs a positive approach to behavior reduction. This procedure takes time and shouldn’t be used with challenging behavior that is dangerous.</td>
</tr>
<tr>
<td>E. Social Disapproval</td>
<td>21. Guiding the person to a more positive interaction.</td>
</tr>
<tr>
<td>F. Response Cost</td>
<td>22. Non-confrontationally divert the person’s behavior to a familiar activity in which he is likely to engage and be successful.</td>
</tr>
<tr>
<td>G. Time Out</td>
<td>23. Avoid calling attention to the challenging behavior.</td>
</tr>
<tr>
<td>H. Restraint</td>
<td>24. Avoid using this intervention if the person wants to be ignored</td>
</tr>
<tr>
<td></td>
<td>25. Do not use this procedure if the behavior cannot be safely ignored</td>
</tr>
<tr>
<td></td>
<td>26. A procedure in which a specific amount of available reinforcers are contingently withdrawn (following a the challenging behavior) in an attempt to decrease the behavior</td>
</tr>
<tr>
<td></td>
<td>27. A consequence which involves the removal of a person from a reinforcing situation and placement into a non-reinforcing situation for a specific amount of time</td>
</tr>
<tr>
<td></td>
<td>28. Short statements informing the person that the behavior in which he/she is engaging is inappropriate and it should stop</td>
</tr>
<tr>
<td></td>
<td>29. Partial or total immobilization of a person through the use of drugs, mechanical devices such as leather cuffs, or physical holding by another person</td>
</tr>
</tbody>
</table>
Chapter 5: Collect Data and Monitor Progress

Objectives:
After completing this chapter, staff will be able to:

- Explain why we collect and share behavioral data.
- Decide how to select a replacement behavior.
- Choose a data collection system.
- Implement the data collection process.
- Graph behavioral data.

1. Explain Why We Collect and Share Behavioral Data?

We collect data to determine if the person is learning to use the replacement behavior, generalizing information to new people/settings and reducing problem behavior as intended.

Staff will understand the value of collecting data if the recording methods make sense to them and are easy to complete during or after a busy shift. Supervisors monitor to see if the data is collected correctly and consistently and notice if that is not done. Collecting data is part of the communication with a supervisor about what is happening when that person may not be present. Finally, the data collected must be used to make decisions or to modify a plan in a timely manner. The more structured and systematic the process is, the more valid the information.

Recording information about behavior keeps us from implementing plans that are not working. Heineman & Dunlap (2015) lists these reasons for collecting data:

1. Decide if the plan is being implemented with fidelity (as intended)?
2. Decide if the plan is addressing the function of the behavior?
3. Determine if the person is making progress in using replacement behaviors?
4. Determine if the challenging behaviors are increasing, decreasing or staying the same?
5. Decide if typical environments are providing sufficient reinforcement?
6. Decide if changes in plan design and implementation need to be made?

Informal judgments about behavior are frequently inaccurate. When describing the frequency of an individual’s behavior, staff will frequently remark that it happens “all the time,” when in fact it may only occur once or twice a week, always on the days Kim works.

Measuring behavior also:

1. Can reinforce the person for learning and for improvements in targeted behaviors.
2. Increases accountability of plan designers and direct support staff.
2. **Decide How to Select a Replacement Behavior**

In selecting a replacement behavior, teams may choose among:

1. **Teaching an alternate communication strategy.**

<table>
<thead>
<tr>
<th>Current Communication Behavior</th>
<th>Replacement Communication Behavior</th>
</tr>
</thead>
<tbody>
<tr>
<td>The person seeks to spend more time doing preferred activities by yelling and refusing when told it’s time to stop.</td>
<td>The person is taught to say “Five more minutes and then I will put it away myself.”</td>
</tr>
<tr>
<td>The person seeks time and attention from staff by refusing to work or throwing items off a table at work.</td>
<td>The person is taught to trade a “gift card” for 1-1 visit or game time with preferred staff.</td>
</tr>
<tr>
<td>The person repeatedly asks staff for preferred videos and if they are not immediately available, calls staff the B word or scratches people.</td>
<td>The person is taught to use a script to guide conversations into social topics What did you do this weekend?” “Guess what?” “Let’s plan when I can go shopping.”</td>
</tr>
</tbody>
</table>

2. **Teaching an alternate escape strategy.**

<table>
<thead>
<tr>
<th>Current Communication Behavior</th>
<th>Replacement Communication Behavior</th>
</tr>
</thead>
<tbody>
<tr>
<td>The person does one task and then heads to the break room and refuses to come back to work.</td>
<td>The person is given a card with a photo of his favorite snack. He gets one half of the picture, each time he agrees to do a task. When he has both pieces, then he trades the card for break time.</td>
</tr>
<tr>
<td>The person gets up long enough to take medication and then goes back to bed and screams at staff when they encourage him or her to get up.</td>
<td>The person is taught to use a shake-a-bed alarm in the AM and to join people for a cup of hot chocolate in the kitchen.</td>
</tr>
<tr>
<td>The person repeatedly refuses to attend group activities in the community to stay home and watch videos instead.</td>
<td>The person is taught to use a picture choice menu that includes; going to a movie; shopping or attending a concert in the afternoon with a person of choice.</td>
</tr>
</tbody>
</table>
**Define the Behavior(s)**

Accurate data collection requires behavioral definitions that are specific, observable, and measurable. Behaviors that have been well defined can be observed and counted. They have a clearly defined beginning and ending or a description that allows the observer to accurately determine if they are occurring or not occurring. The *Measuring Behavior and Writing Behavioral Objectives* module in the Community Staff Training Curriculum contains more in-depth information on defining behavior. *Remember to write an objective for both the replacement behavior and another objective for the behavior to be reduced as the data collection for each, might need to be quite different.*

### 3. Choose a Data Collection System.

Data collection methods are determined by the nature of the behavior and the goals of the intervention plan. The decision regarding selection of a measurement instrument hinges on the following points:

- Does it measure one behavior of interest?
- Is it appropriate for the feature of the behavior with which we are concerned?
- Are the data collection methods easy for staff to use?
- Have we found a way to show the person the progress they are making?
- Are there sufficient resources to collect the data (staff skill and time) systematically and accurately using this method?

Typically, the following types of measurements are conducted in community-based programs:

**Continuous Recording, Anecdotal Records (ABC).** Write a brief narrative describing in sequence all behaviors observed. The observations can be organized into an ABC (antecedent, behavior, consequence) chart.

*Strengths:* Can be used to assess more than one behavior at a time.

*Weaknesses:* Can be time consuming. The person collecting the data must clearly distinguish behaviors observed from opinions or conclusions about why behavior is occurring.

*Solutions:* An ABC with pre-coded options can be designed so that staff need only check which option is happening.

<table>
<thead>
<tr>
<th>Date and Time</th>
<th>A</th>
<th>B</th>
<th>C</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>o work task presented. o staff occupied with others. o transition occurring</td>
<td>o yells or swears o pushes others o throws items</td>
<td>o got out of task o staff attention o left area</td>
</tr>
</tbody>
</table>

*Comment*

*Used When:* We want to analyze the antecedents and consequences that may be controlling
behavior, or we want to check to see if the function of the behavior has changed.

Not Recommended When: We are measuring progress while teaching a new skill or if we are concerned with different aspects of the behavior itself (duration, latency, accuracy).

Examples: Antecedents and consequences of hitting, arguing, screaming, etc.
Sample Data Sheet: See Chapter 3 for a sample ABC record.

Frequency Recording. This system involves counting the number of times a behavior occurs in a specific time period (i.e., number of cigarettes smoked). The observation periods in frequency measures are all the same length. (Note, the higher the frequency of the behavior, the shorter the observation periods need to be).

Strengths: Only a phone, or clipboard, pencil, and paper (or a counting device) are required; easy to use.

Weaknesses: Some behaviors are difficult to count. You don’t learn anything about the antecedents and consequences of the behavior or dimensions of the target behavior (accuracy, duration, latency, etc).

Used When: The behavior is obvious and has a well-defined beginning and end; when there is no typical pattern of occurrence; and the behavior occurs several times a day. Used in PBS plans when the goal of the intervention is to increase or decrease the frequency of a behavior.

Not Recommended If: The behavior is occurring at such a high rate that an accurate count is impossible (pencil tapping); When the behavior occurs for extended periods of time (watching television); The behavior is not very obvious and would require someone to constantly observe (nail biting) for long periods of time; If we are concerned about factors other than frequency (quality of performance, duration, latency, etc.).

Examples: Toileting accidents, boards sanded, parts assembled, hotel rooms cleaned.

A data sheet for Frequency Recording looks like this:

<table>
<thead>
<tr>
<th>Frequency Data Sheet</th>
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<tbody>
<tr>
<td>Name:</td>
</tr>
<tr>
<td>Observer:</td>
</tr>
<tr>
<td>Definition of Behavior being observed:</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Date</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>Daily Total</th>
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</table>
Rate Measures. Used for behaviors that would be measured by Frequency Recording when the length of the observation time periods vary. Frequency of the behavioral occurrence is divided by the time of the observation period (i.e., 2 cigarettes per hour).

<table>
<thead>
<tr>
<th>Number of responses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Length of observation period</td>
</tr>
</tbody>
</table>

Interval Recording. This type of recording breaks the observation period into intervals of time (seconds or minutes) and the observer notes whether the target behavior occurs or does not occur during that interval. Generally, the lower the frequency of the behavior, the longer the time interval used. Interval recording provides an estimate of the actual number of times that a behavior occurs. The scatter plot in Chapter 3 is an example of interval recording.

Strengths: Regardless of whether the behavior occurs once or 10 times during the interval, the recorder makes only one mark to indicate the behavior occurred. This type of recording helps us to estimate how often a high frequency behavior occurs more accurately than if we tried to make a frequency count. It is also helpful when it is difficult to observe where one incident of a behavior begins and ends (e.g. picking at lips).

Weaknesses: Difficult to use when multiple responsibilities distract the observer.

Used When: The behavior does not have an easily defined beginning and ending (chewing); more than one person’s behavior is being recorded (on task behavior); more than one behavior is being recorded for the same person (smiling, eye contact, interacting with others); if the intervention plan is designed to reinforce someone after a certain length of time in which no challenging behavior has occurred (no hitting, kicking, or swearing); the behavior being measured is subtle (nail biting).

Not Recommended If: We are concerned about factors other than frequency (quality of performance, etc.) or when trying to determine the function of a behavior.

Sample Data Sheet: The scatter plot in Chapter 3 is an example of interval recording.

A typical data sheet for interval recording (in 10-second intervals) could look like this:

<table>
<thead>
<tr>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
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</table>

An "X" is placed in the intervals in which the targeted behavior occurs. For example:

<table>
<thead>
<tr>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>x</td>
<td>x</td>
<td></td>
<td></td>
<td>x</td>
</tr>
</tbody>
</table>

Time Sample. Similar to interval recording in that the time period (usually minutes) is broken into intervals. The intervals can be equal (observe every five minutes for one hour) or random (20 observations within one hour, with the length of time between observations varying randomly).
Behavior is recorded if it is occurring at the end of the interval.

**Strengths:** Easier to implement than interval recording. The recorder can engage in other activities during most of the observation period and observe and record for shorter periods of time.

**Weaknesses:** Less accurate than interval recording. Results are only a general idea of the level of behavior. Requires careful observation to detect behavior.

**Used When:** Measuring fairly subtle behaviors with no typical pattern of occurrence. When the goal of the intervention is for continuous performance of a desired behavior or for decreasing the occurrence of a challenging behavior.

**Not Recommended If:** Continuous reinforcement schedule is being implemented during the initial stages of a teaching plan.

**Examples:** On task behavior (working, cleaning)

A Data Sheet for a 20-minute interval Time sample looks like this:

**CLEANING-Jody**

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
</tr>
</thead>
<tbody>
<tr>
<td>x</td>
<td></td>
<td></td>
<td>x</td>
<td>x</td>
<td>x</td>
<td></td>
<td></td>
<td></td>
<td>x</td>
</tr>
</tbody>
</table>

Cleaning was occurring at the end of the 1st, 3rd, 4th, 5th, 6th and 9th interval. The same data could have also been recorded in the form:

1. 5:20 X 4. 6:20 X 7. 7:20
2. 5:40 5. 6:40 X 8. 7:40
3. 6:00 X 6. 7:00 X 9. 8:00 X

Jody was cleaning during 67% of the checks on Monday: Calculated at: 6/9 X 100 = 67%.

On Tuesday, the recorder could not check every 20 minutes. So, she used the random time sampling. However, since she made nine checks Monday, she decided to keep that constant.

**CLEANING -Jody**

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>6:15</td>
<td>6:30</td>
<td>6:55</td>
<td>7:00</td>
<td>7:30</td>
<td>7:45</td>
<td>8:25</td>
<td>8:40</td>
<td>9:00</td>
</tr>
</tbody>
</table>

(intervals of variable length)

The data could also have been recorded like this:

1. 6:15 X 4. 7:00 7. 8:25
2. 6:30 X 5. 7:30 X 8. 8:40
3. 6:55 X 6. 7:45 X 9. 9:00

On Tuesday, Jody was cleaning during 56% of the checks: 5/9 X 100 = 56%.
Accuracy. We measure the accuracy of a behavior only when the precision or correctness of the behavior matters. This way of measuring is often used when teaching skills such as balancing a checkbook or putting the correct widget in the right slot. To calculate a measure of accuracy we would use the following formulas:

\[
\text{Number of correct responses} \times 100 \\
\text{Number of trials or observation times}
\]

*Used When:* We need to know more than how often a behavior is demonstrated. Used in situations when we want to determine the degree to which a response is correct or incorrect or the rate of correct responses. Used when the response can be compared to some criteria and evaluated as being either right or wrong. Used to improve the quality of performance.

*Not Recommended If:* Frequency is the only important feature of the behavior or when measuring the number of steps completed unless the quality of the performance of each step is important.

Duration. The duration of the response is the total time occupied by the behavior from start to finish (e.g. spent 15 minutes in the shower). Duration is recorded either as:
- total duration of all the occurrences during the observation period
- average duration of the occurrences within an observation period (total duration/number of occurrences)
- percent duration (total duration divided by the length of the observation period) multiplied by 100.

*Strengths:* Tells both frequency of a behavior and total time the behavior occurred. *Weaknesses:* Requires the total attention of the observer. Difficult to take duration on more than one behavior. *Used When:* A precise behavioral definition of the behavior is possible; when we want to know how long the person engages in a specific behavior or if the goal of the intervention plan is to increase or decrease the duration of a behavior. *Not Recommended If:* The behavior doesn’t have a clear beginning and end or if the behavior occurs at a very high frequency. *Examples:* Working on a task, exercising, interactions with others; screaming episodes.

<table>
<thead>
<tr>
<th>Duration Data Sheet</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name:</td>
</tr>
<tr>
<td>Observer:</td>
</tr>
<tr>
<td>Definition of Behavior being observed:</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Date</th>
<th>Duration</th>
<th>Daily Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Onset</td>
<td>Offset</td>
</tr>
</tbody>
</table>
Latency of the response refers to the time from some event to the onset of the behavior (started washing dishes within 15 minutes of being asked). Average latency can be computed once a number of latency recordings have been taken, using the following formula:

\[
\text{Average latency} = \frac{\text{Sum of recorded latency}}{\text{Number of recorded latencies}}
\]

*Used When:* We want to know how long it takes the person to begin performing a particular behavior once the stimulus has been presented.
*Examples:* Length of time between a prompt (instruction, alarm clock, other people getting up to leave an area) and initiation of the behavior.

*Data Collection:* If you recorded the latency of responding to a conversation starter (Hi Mary, How Are You?) over an entire day, you could easily derive the average latency for that day. If it took 30, 50, 90, 40, and 20 seconds for an individual to respond to five different greetings, the average latency would be 46 seconds (230 seconds).

**Permanent Product Recording (Outcome recording).** Permanent products are tangible items or environmental effects that result from a behavior.

*Strengths:* The recorder doesn’t have to be present at the time the behavior took place. In some cases, permanent products are durable and could be evaluated at a later time (work products).

*Weakness:* The only thing we know is that the behavior occurred. We can’t be sure who actually performed the behavior or how long it took. We don’t know the length of time it took to produce the product or any difficulties the person encountered.

*Used When:* The behavior results in a tangible outcome in which you are interested; when the person has consistently and appropriately engaged in the behavior for a long time; when the staff member is not present to observe the behavior.

*Not Recommended If:* When we are trying to refine aspects of the task when the person is learning a new skill (i.e., bed making).

*Examples:* Trash taken out, dishes done, lawn mowed, room cleaned.

*Sample Data Sheet:* Permanent product data are typically taken on an interval basis. The recorder notes whether or not the task had been completed, or how much has been completed at the end of the specified interval. The intervals may be fixed (once a day) or variable (i.e., random checks throughout the day).

**Behavioral Checklists.** These are a common tool for measuring task completion - especially tasks which have a predictable time or place of occurrence. Behavior checklists can be used to monitor completion of self-care tasks or work assignments. They can also be used to record steps completed in a complex task that is being taught.

*Strengths:* This recording system is helpful in monitoring progress if the data is recorded as the behavior(s) are performed.
Weaknesses: Completing behavior checklists after the fact, resulting in biased data.

Used When: Behavioral checklists are used to track performance when there are several related tasks that the person knows how to complete, but he or she does not complete them at the desired rate or frequency (i.e., bathing, shaving, using deodorant, brushing teeth could all be measured on one behavior checklist). Also used to list the steps in a task analysis of a complex task that is being taught (making a bed).

Not Recommended If: There is no pattern for predicting when the behavior will occur.

Examples: Grooming tasks, steps for household chores, individual cleaning tasks for cleaning a motel room.

Behavior Checklist – John Farley Dates: From - 6/6
Observer - Joe C., & Bob T. To - 6/11

<table>
<thead>
<tr>
<th>Date</th>
<th>Dress</th>
<th>Comb Hair</th>
<th>Bath</th>
<th>Brush teeth</th>
<th>Shave</th>
<th>+</th>
<th>o</th>
<th>/</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>6/6</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td>o</td>
<td>+</td>
<td>4</td>
<td>1</td>
<td>0</td>
<td>80</td>
</tr>
<tr>
<td>6/7</td>
<td>+</td>
<td>o</td>
<td>+</td>
<td>o</td>
<td>o</td>
<td>2</td>
<td>3</td>
<td>0</td>
<td>40</td>
</tr>
<tr>
<td>6/8</td>
<td>+</td>
<td>+</td>
<td>o</td>
<td>+</td>
<td>o</td>
<td>3</td>
<td>2</td>
<td>0</td>
<td>60</td>
</tr>
<tr>
<td>6/9</td>
<td>+</td>
<td>o</td>
<td>o</td>
<td>o</td>
<td>+</td>
<td>2</td>
<td>3</td>
<td>0</td>
<td>40</td>
</tr>
<tr>
<td>6/10</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td>o</td>
<td>0</td>
<td>3</td>
<td>2</td>
<td>0</td>
<td>60</td>
</tr>
<tr>
<td>6/11</td>
<td>+</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>4</td>
<td>0</td>
<td>20</td>
</tr>
</tbody>
</table>

+ = behavior did occur
o = behavior didn’t occur
/ = not applicable

When is Data Collected?

Behavioral data should be collected **before, during, and after** developing and implementing the
support plan.

Behavioral measurements before intervention is used to:
• Help determine whether or not the behavior is a problem that requires a support plan
• Helps determine why a behavior is occurring and select the best intervention
• Establish a baseline to compare to data collected during intervention to evaluate the effectiveness of the intervention.

Measuring the behavior during the teaching program provides:
• Day-to-day feedback for evaluating the effectiveness of the support plan
• Information about which steps might be difficult for the person as training continues.
• The timing of when to make revisions.

Times will vary depending on what target behaviors are selected, how frequently they occur, and available resources. For example, if we were counting social interactions, the appropriate time to collect the data would be during relatively unstructured times when others are present. Communication skills should be measured throughout the day in a variety of environments. Grooming skills would be measured in the morning or evening when the activities are taking place.

Behavior measurement following the teaching program allows the team to:
• Determine the effectiveness of the program.
• Decide if the behavior is maintained after formal intervention has been discontinued.


Data must be collected on a consistent basis according to the schedule determined in the intervention plan. To ensure that data are collected accurately, it is best to provide training for the people who will collect the data and actually observe them implementing the plan and collecting the data. Depending on the need for objective and reliable data collection, it may be advised to periodically have a second observer simultaneously collect data on the same behavior or the same person at the same time. Information on reliability can be found in the materials listed in the resource section.

Video Recording of Performance

A newer method for monitoring performance is the use of micro-video snippets to capture performance before, during and after a behavior has been introduced or learned. The strengths of this method are showing both the person with a disability and any staff where the person was when they began and how far they’ve come. It helps in the face of staff turnover and can assist a supervisor in assuring that staff members do not contribute to learned helplessness by doing an activity for someone that they have already learned to do for themselves by assuming a person can’t do the activity based on their appearance. The weakness in using this method is fitting the videos into existing program management solutions. For example, as of 2018, Therap does not
have a way to store video recordings. In addition, security issues for protecting confidentiality must also be considered. However, given the rapid use of video on the internet, agencies may want to consider this format in the future.

5. Graph Behavioral Data.

Graphing is a way to put the data you have collected into a picture. It is difficult to make sense of tallies, checkmarks, and percentages without a visual way to compare data from one point in time to another. Graphing the behavioral measurement results provides both a summary and a visual representation of what the person is doing.

Basic Parts of a Graph

The basic line graph is the most frequently used tool for displaying data. The line graph includes two axes, the horizontal or x-axis and the vertical or y-axis. The axes are labeled with the time dimension (e.g., session, day, hour) placed on the x-axis and the description of behavior (i.e., frequency of hitting, percentage of grooming tasks completed) placed on the y axis. Each data point is placed at the intersection of the session in which it occurred and the level of the behavior.

![Graph example](image)

Figure 8.8

Graphing Methods

There are three primary ways that agencies could graph behavioral data.
1. **Paper and pen**: Agencies can customize data collection forms so that as data is entered, a simple picture of the progress appears. This helps staff to see at a glance how people are doing. An example is provided below

<table>
<thead>
<tr>
<th>Name:</th>
<th>Job Duty: Empty the trash</th>
</tr>
</thead>
<tbody>
<tr>
<td>Repeats sequence 2 x</td>
<td>7</td>
</tr>
<tr>
<td>Replaces the bag into the trash can.</td>
<td>6</td>
</tr>
<tr>
<td>Obtains a new empty trash bag</td>
<td>5</td>
</tr>
<tr>
<td>Brings trash bag to the dumpster</td>
<td>4</td>
</tr>
<tr>
<td>Ties the ends of the ribbon in a single knot</td>
<td>3</td>
</tr>
<tr>
<td>Pulls ribbons on both sides to close the opening</td>
<td>2</td>
</tr>
<tr>
<td>Removes trash bag from the trash can.</td>
<td>1</td>
</tr>
<tr>
<td>Dates</td>
<td>7/1</td>
</tr>
</tbody>
</table>

Note that in this model, the steps for the task are listed from the bottom up. Each step performed independently is circled. By connecting the circles for the highest number of independent steps completed per day, the staff can form a progress graph. Letters for the level of prompting needed while not included in this example can also be included. While paper and pencil techniques are disappearing, they can be helpful if the Internet is not working or a person lives in a location where the signal is weak, or the person lives in an apartment but can’t afford internet access.

2. **Use spread-sheet technology**: Excel’s chart wizard is very helpful in graphic data. Staff can use a search engine to find a step-by-step description or video that explains how to create line or pie charts using Excel. Spread-sheet technology is considered to be a bridge to more sophisticated online data entry systems available.

3. **Use Electronic Documentation Systems**: Therap is one (and widely used) comprehensive electronic documentation system for I/DD Service Providers. [https://www.therapservices.net/](https://www.therapservices.net/) This system provides online access from anywhere with an Internet Connection and all of the needed forms and tracking functions for data collection. While using Therap requires advanced training through online tutorials, learning this system has multiple advantages for tracking programs for more than one person and advancement within some organizations.
Sharing Data

The purpose for collecting data is to aid in making decisions related to the effectiveness of the teaching plan and methods. Sharing data with staff can help motivate them to continue. It is sometimes hard to see progress on a daily basis if growth is very slow. Illustrating data over time on a graph can be quite a boost for people working diligently day-by-day. Sharing information with consultants is also critical. If outside agency consultants are assisting with behavioral programming, it is important to share the data in a way that will be most effective for them. Ask what format they prefer. If they don’t seem to use what staff compile, see what you can do to better meet their needs. Nothing will kill motivation of frontline staff faster than realizing that the data they compile is not used to help the individual served or make their job easier.

Medications and Data Collection

People with cognitive disabilities seldom are able to convey their response to the medication accurately and completely. Therefore, it is critical to compensate for the person’s disability by organizing data in a way that will help the physician determine the effects of the medication since the person’s last visit.

Summary

Graphs encourage independent judgement and interpretation (Cooper, Heron and Heward, 2007). In addition, graphing tends to improve the performance of staff in teaching and in responding to behavior (Peebles and Ali, 2015)
Lesson 5 Study Questions

1. Name three reasons for why we collect data?

2. When selecting a data collection system, it is important to evaluate whether or not the instrument measures the ______ of the behavior with which we are concerned and if there are sufficient ______ to accurately use this method.

3. When using a frequency count, the higher the frequency of the behavior, the __________the observation period needs to be.

4. Behavioral measurement should be completed ______, _______, and _developing and implementing the support plan.

5. What steps can be taken to help ensure that data will be collected accurately?

6. Why graph data?

7. What is the best format for sharing data with consultants?

8. Data collection methods are determined by the ______ the behavior and the ______ of the intervention plan.

Match the measurement method with its description

<table>
<thead>
<tr>
<th>1. Frequency Recording</th>
<th>9. Used when the focus of the intervention is to improve the quality of performance.</th>
</tr>
</thead>
<tbody>
<tr>
<td>2. Rate measures</td>
<td>10. Used for behaviors that would be measured by frequency recording when the length of the observation time periods vary.</td>
</tr>
<tr>
<td>3. Accuracy Measures</td>
<td>11. Used when behavior is obvious and has a well-defined beginning &amp; end; when there is no typical pattern of occurrence; and the behavior occurs several times a day.</td>
</tr>
<tr>
<td>4. Interval Recording</td>
<td>12. Used to analyze the antecedents and consequences that may be controlling behavior.</td>
</tr>
<tr>
<td>5. Latency Measures</td>
<td>13. While it is only an estimate, it may be more accurate than a frequency count of behaviors that occur at a high frequency (interactions with others) or subtle behaviors (nail biting).</td>
</tr>
<tr>
<td>6. Duration Recording</td>
<td>14. Used to determine how long it takes the person to begin performing a particular behavior once the stimulus has been presented.</td>
</tr>
<tr>
<td>7. Permanent Product Recording</td>
<td></td>
</tr>
<tr>
<td>8. Continuous Recording,</td>
<td></td>
</tr>
<tr>
<td>Anecdotal Records (ABC)</td>
<td></td>
</tr>
<tr>
<td>Behavioral Checklists</td>
<td></td>
</tr>
<tr>
<td>1. Frequency Recording</td>
<td>15. Narrative describing in sequence all behaviors observed.</td>
</tr>
<tr>
<td>------------------------</td>
<td>---------------------------------------------------------------</td>
</tr>
<tr>
<td>2. Rate measures</td>
<td>16. Used when a precise behavioral definition of the behavior is possible; when we want to know how long the person engages in a specific behavior.</td>
</tr>
<tr>
<td>3. Accuracy Measures</td>
<td>17. Used when the behavior does not have an easily defined beginning and ending (chewing); more than one person’s behavior is being recorded (on task behavior); if the intervention plan is designed to reinforce someone after a certain length of time in which no challenging behavior has occurred (no hitting, kicking); the behavior is subtle (nail biting).</td>
</tr>
<tr>
<td>4. Interval Recording</td>
<td>18. Used when the behavior results in a tangible outcome; when the person has consistently and appropriately engaged in the behavior for a long time; when the staff member is not present to observe the behavior.</td>
</tr>
<tr>
<td>5. Latency Measures</td>
<td>19. Used to measure completion of tasks which have a predictable time or place of occurrence. Can be used to monitor completion of self-care tasks or work assignments. They can also be used to record steps completed in a complex task.</td>
</tr>
<tr>
<td>6. Duration Recording</td>
<td>20. We can’t be sure who actually performed the behavior or how long it took. We don’t know the length of time it took to produce the product or any difficulties the person encountered.</td>
</tr>
<tr>
<td>7. Permanent Product Recording</td>
<td>21. Not Recommended If: The behavior is occurring at such a high rate that an accurate count is impossible (pencil tapping); When the behavior occurs for extended periods of time (watching television); The behavior is not very obvious.</td>
</tr>
<tr>
<td>8. Continuous Recording,</td>
<td></td>
</tr>
<tr>
<td>9. Anecdotal Records (ABC)</td>
<td></td>
</tr>
<tr>
<td>10. Behavioral Checklists</td>
<td></td>
</tr>
</tbody>
</table>
Chapter 6: Implement Behavior Support Plans

Objectives:

After completing this chapter, staff will be able to:

- Identify effective strategies for shared plan implementation.
- Engage team members in finalizing the plan.
- Take steps to implement the behavior intervention plan.
- Provide training for plan implementation and data collection.
- Obtain tools, resources and implementation guides for diverse settings.
- Provide on-site coaching and supervision to assure plan is implemented with fidelity.
- Recognize when and how to modify the plan as implementation proceeds.
- Provide appropriate feedback to correct errors or address a lack of continuity.
- Assist staff in understanding what can or can’t be done without authorization.
- Provide on-going support to assure staff are not isolated or overwhelmed.

1. Identify Effective Strategies for Shared Plan Implementation:

This chapter focuses on implementing the PBS plan correctly and consistently. Implementation of the behavior intervention plan is a shared responsibility. All members of the team may at times take a leadership role in assuring the plan is implemented with fidelity.

Fidelity: The term fidelity means using the techniques called for in the plan and not introducing other techniques that are contra-indicated by the FBA. Anyone who supports the person while the plan is in place must be able to consistently providing all of these plan elements:

- Refamiliarizing yourself with the plan after being away.
- Engaging the person with a disability and DSPs in understanding the plan.
- Teaching replacement behaviors as required in the plan.
- Correcting demonstrating the antecedent and reactive strategies the team plans to use.
- Problem solving in new situations based on the intent of the plan.
- Collecting data in a valid and consistent manner.
- Communicating needed information with other members of the team.
- Communicating across programs as needed.

Implementation of any behavior intervention requires a champion or team leader because of the amount of coordination and communication required for successful plan implementation. This role may fall to a program director or coordinator, a supervisor or a behavior intervention specialist. The team leader for the behavior intervention plan is responsible for coordinating and monitoring plan implementation.
The quality of the team leader’s relationships and communication with direct support professionals contributes significantly to the successful implementation of the plan. Important characteristics for leadership of a behavior intervention team include:

- The ability of the team leader to demonstrate open and honest verbal and non-verbal communication, take feedback seriously and respond in a timely manner to questions or requests for assistance.
- The team leader’s willingness to cross traditional roles and rely on the expertise of DSPs who may have a deeper knowledge of the individual that supervisory staff (that may not be the case for new staff).
- Establishment of a clear line of authority in determining if an action or approach on the part of staff is or is not aligned with the intent of the plan and may continue or not.
- Ability to provide helpful feedback in the moment as DSPs attempt to implement the plan.

If the team leader has some but not all of these skills, the role can be shared with other members of the team. For example, a supervisor or program director may consult with the behavior specialist from time to time and then relay suggestions to staff as a person of trust. Effective supervisors establish good relationships and put effective program management systems in place trying to implement a behavior intervention plan. Effective administrators provide training and coaching to supervisory staff.

2. Engage Team Members in Finalizing the Plan:

   The first step in this process is to notify or remind staff of the plan’s start date. The next step is to signal the team that it is time to take important steps to switch from a planning to an implementation phase by scheduling a plan review and one or more brief implementation meetings. At this meeting, the team leader will:

   A. Review the Competing Behavior Pathway (CBP) with all members of the team. An example of a CBP is shown on the next page. The CBP gives each team member a clear at-a-glance summary of what is maintaining both the problem and the replacement behavior. The information for the Pathway is taken from the FBA. The pathway is easier to understand and remember than a longer report. The example of the CBP on the next page is focused on a single setting but the team may need to have a version for additional settings in which the behaviors occur or when the same behavior (say protesting) is maintained by more than one consequence.

   Figure 8.9: Competing Behavior Pathway - Adapted from Horner, Albin, Todd, Newton & Sprague, 2011

   The team leader asks the guiding questions: Is this still our goal? Does the replacement behavior serve the same function as the problem behavior? Is it easier for the person to do and socially acceptable? This gives the team a clear picture of what has been happening and what needs to
happen and helps to assure buy-in for implementing the plan. This approach also allows the team to deal with any changes in behavior that may have taken place since the person-centered planning meeting was held. Your agency may use a slightly different version of this tool.

B. Review, Clarify and Adjust Strategies to Address the Behavior’s Function.

Hopefully, the team developed measurable objectives and a clear plan of action during the person-centered-planning meeting. However, if that did not happen (there was a lot of discussion and a consensus on a general approach was reached but the details were not confirmed) it needs to happen now. The following chart should be used to engage DSPS in making decisions about the plan. **DSPS are much more likely to implement a plan with fidelity if they have played a significant role in developing the plan.**

**Step One:** Draw or display columns and write suggested preventive, teaching, and consequence strategies under each category.

**Step Two:** Ask team members a series of questions to recruit ideas for potential strategies.

**Step Three:** Ensure that all team members have an opportunity to participate.

**Step Four:** If helpful, provide an example strategy under some or all of these categories, then ask team members to suggest additional strategies.

<table>
<thead>
<tr>
<th>Setting Events</th>
<th>Antecedents</th>
<th>Teach Behavior</th>
<th>Consequences</th>
</tr>
</thead>
<tbody>
<tr>
<td>Eliminate or Neutralize</td>
<td>Prevent/Modify “Triggers”</td>
<td>Teach Alternate Behavior</td>
<td>Reinforce Alt/Des Behavior</td>
</tr>
<tr>
<td></td>
<td>Prompt Alt/Des Behavior</td>
<td>Teach Desired Behavior</td>
<td>Response to Problem Behavior</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Safety</td>
<td></td>
</tr>
</tbody>
</table>

**Figure 8.10: Competing Behavior Pathway - Adapted from Horner, Albin, Todd, Newton & Sprague, 2011**
The following questions can be used to solicit input from other members of the team.

<table>
<thead>
<tr>
<th>How can we arrange the environment to prevent problem behavior?</th>
</tr>
</thead>
<tbody>
<tr>
<td>How will we teach a replacement behavior?</td>
</tr>
<tr>
<td>How will we:</td>
</tr>
<tr>
<td>- Reward the Alternative behavior?</td>
</tr>
<tr>
<td>- Maximize payoff for approximations of desired behavior?</td>
</tr>
<tr>
<td>How will we prompt the Replacement behavior?</td>
</tr>
<tr>
<td>What skills can we teach to move toward the desired behavior?</td>
</tr>
<tr>
<td>How will we <strong>Minimize the Payoff</strong> for the problem behavior?</td>
</tr>
</tbody>
</table>

**C. Select Only Function-Based Strategies**

A function-based strategies are those strategies that take into account or are a match for the team’s understanding of what is maintaining the behavior. **IF** team members suggest a strategy that is not function-based or is contraindicated:

- Direct team members’ attention back to the competing behavior pathway
  - Use the pathway to Remind team that:
    1. We **DO** want to reward appropriate behavior with the **same or similar consequences** as those currently maintaining the problem behavior
    2. We **DO NOT** want the person to access reinforcement following problem behavior

Using this approach prevents the team leader from imposing his or her will on others and instead helps the team arrive at the best suggestions together.

**D. Select Contextually Appropriate Strategies:**

For each strategy being considered the Team Leader will ask implementers to answer/rate:

- Do you believe this intervention will be effective for the person?
- Is this intervention consistent with your values as a DSP?
- Is this intervention feasible for you to implement?
- Do you have the skills needed?
• Are the necessary resources (time, space, staff, administrative support) available?

If the answer to any of these questions is “maybe” or “no”:
  • Are there ways that the strategy could be modified to make it a better “fit”?
  • Can you think of another way to achieve the same goal?

E. Modify Strategies As Needed

If a strategy doesn’t look like it will work, the team leader asks “How can we revise the strategies while still preventing problem behavior?”

<table>
<thead>
<tr>
<th>Manipulate Antecedent</th>
<th>DSP CONCERN</th>
<th>Manipulate Antecedent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prevent problem behavior</td>
<td>Jeff may just go looking for his favorite person and be away from the area longer.</td>
<td>Prevent problem behavior</td>
</tr>
<tr>
<td>Ask preferred staff to work in another room at the beginning of the day.</td>
<td></td>
<td>We can have the staff person he likes spend ten minutes with him at the beginning of the day and promise to visit again at the first break. They can go with him to a work area and help him get started.</td>
</tr>
<tr>
<td>Prompt Alternate or Desired Behavior</td>
<td>DSP CONCERN</td>
<td>Prompt Alternate or Desired Behavior</td>
</tr>
<tr>
<td>Put favorite game on the table in plain sight.</td>
<td>If Jeff sees the game, he may refuse to do other activities later.</td>
<td>We can use an If/Then visual chart to show him after he helps us fold 5 American Flags (while music plays) he can earn game time.</td>
</tr>
</tbody>
</table>

Figure 8.11: Competing Behavior Pathway - Adapted from Horner, Albin, Todd, Newton & Sprague, 2011

E. Consider Neutral Strategies as Well

Finally the Team Leader must determine:

#1. Is this a neutral strategy? (Ensure that the strategy is not contraindicated!!)
#2. Does the plan include function-based prevention, teaching, and consequence strategies?

#3. Does this strategy improve contextual fit?

If the answer to all three questions is “yes”, then it may be fine to include the neutral strategy. However, be careful not to add too many pieces to the plan (remember feasibility!)

3. Take Steps to Implement the Behavior Intervention Plan:

After strategies are selected, the Leader will guide members in developing a plan to specify:

- What activities will need to be undertaken to ensure that EVERY plan component is implemented in all necessary environments. Consider training, resources and logistics.
- Who is responsible for implementing each component of the plan?
- When each aspect of the plan will be implemented.
- How will we respond to situations that are likely to happen?

- A preferred staff person is not working
- The setting is somewhat chaotic as multiple people arrive
- He doesn’t want to help fold flags on a particular day

Remember the situation may be slightly different at home or in the community so the team may need to go through this process for all locations.

The team leader will also need to ensure that the BSP includes an evaluation component with:

- A short-term objective that is reasonable based on current performance and is focused on increasing Replacement behavior and decreasing problem behavior
- A long-term goal focused on increasing desired behavior
- Specific activities/procedure/forms that will be used to evaluate progress
- Specific activities/procedures/forms to evaluate the availability of services aimed at improving the person’s quality of life
- A specific date when the team will next meet to review progress

4. Provide training for plan implementation and data collection.

The team leader and supervisor will need to make and update a list of all staff and what decide what kind of training they need or what their training roles need to be: Here is a list of typical responsibilities.
a. Supervisor Roles and Responsibilities. To show DSPS (primary and secondary) how to use all strategies in the plan. To assure they can demonstrate the intervention strategies and reinforcement activities on their own. Don’t assume that because a staff person has worked for over ten years that they feel comfortable in using this plan. Ask them to demonstrate how they plan to carry out each activity and provide feedback as needed. If necessary, refer back to the completing behavior pathway.

b. Behavior Intervention Specialist Roles and Responsibilities. This specialist (if available) brings the most in-depth knowledge about behavior change practices to the team. They have a role in assuring that the team selects evidence-based intervention strategies. They meet frequently and informally with team members as the plan is rolled out. They may need to remind staff that they may see a burst of the problem behavior when the plan first starts and that is a sign they are implementing the plan correctly. They keep in touch with staff and ask supervisors to retrain or support a staff person who is struggling with the plan implementation.

c. Staff Trainer Roles and Responsibilities: In some agencies, this person may be assigned to complete some of the training for DSPs. They may be introducing new staff to what a Competing Behavior Pathway means in orientation or volunteering to teach certain aspects of the plan. If a staff person exhibits a negative attitude about the person’s behavior the staff trainer may be involved in reviewing why punishment is usually ineffective. Both the staff trainer and supervisors will be reinforcing the importance of following the plan as written until the team meets to change it and assured that if unintended consequences occur, supervisory staff will be available and steps to tweak a plan can be made quickly.

d. DSP Roles and Responsibilities: Veteran staff may be asked to summarize the plans at staff meetings and lend assistance with plan implementation to peers who are working the same shift. A DSP may be double checking to see that data forms are being completed. Of course, DSPs will also be trained to implement the plan and should expect an increase in supervisory support when the plan is first used and until we know it is working.

**Critical steps to review in reading and understanding a BSP are finding out:**

- What do I do for environmental setup? Do I do that once, or every shift?
- What should be in place in environments for this person to be successful?
- What frequently lead to challenging behavior (antecedents)? How can these be avoided?
- What should I do if an event happens that usually comes before a challenging behavior?
- What behaviors are we trying to decrease? What should I do if these behaviors occur?
What behaviors are we trying to increase? What should staff do if these behaviors occur?
What is the correct way to take and record data on the plan? How often?
What do I do if I am unsure how to carry out the plan as written in a given situation?
What do I do if an unexpected challenge keeps me from carrying out the plan as written?
What do I do if a new kind of challenging behavior emerges?
What do I do if I believe it is likely that someone will get hurt carrying out the plan.
What do I do if the challenging behavior does not get better or gets worse from the plan?
What do I do if other duties interfere with carrying out the plan as written?

Sometimes staff training on PBS plans occurs in a classroom or office setting, but there is a real need for the team leader to provide training and coaching with feedback in the actual support settings. On-site training from the leader or supervisor should take place before a plan is implemented, but it is important that any specialists involved, are available for further on-site training if needed. The person responsible for the plan will need to monitor the data submitted by DSPs. If progress is not what was anticipated, he or she may need to observe on-site to determine if the plan is being implemented as written and if data is being collected correctly. Staff need reassurance that the team leader anticipates the support plan will be effective and will take necessary steps if it is not.

**One of the team leader’s responsibilities is to ensure the PBS written document is in a format that direct support staff can understand and apply.** To increase the likelihood that PBS plans will be implemented consistently, the plans need to be written succinctly and in every-day language. However, sometimes it is difficult to meet these accessibility issues and still meet the regulatory and professional standards for best practice in plan design. Some agencies solve that problem by having a full plan in the person’s file and another summary sheet or the “Cliff Notes” version for direct support staff. The graphs used to document team decisions about procedures, often become the at-a-glance plan for the individual.

**5. Obtain tools, resources and implementation guides for diverse settings.**

The Program Director or Coordinator is responsible for working with staff to assure that DSPs have the needed tools, resources and implementations guides for operating the plan for diverse settings.

Diverse settings simply means all the different places where a plan may need to be carried out. This can include, bathrooms, vans or cars, living areas, bedrooms, backyards, neighborhoods, shops, church, work areas and more. Resources that may be needed may include:

a. A variety of reinforcements or activities.
b. Reinforcement menus.
c. Graphs and charts the person with a disability will use to track his or her own progress.
d. Visual schedules
e. Switches  
f. Communication cards or devices.  
g. A back-up plan if technology fails  
h. Video recording devices (usually a cell phone)  
i. Meaningful activities for the setting  
j. Sensory materials  
k. Spending money  

It works best if many of these types of items are available on an ongoing basis so that gathering them together when a plan is implemented does not feel overwhelming.

6. Provide on-site coaching and supervision to assure plan is implemented with fidelity.

The term fidelity means that the plan is implemented as designed. The initial training on plan implementation should allow for demonstration by the DSP or other implementors so that the supervisor is assured the staff person has not just been told about the plan, but can demonstrate the ability to follow it in real-world conditions. Staff training must include each element of the plan, preventative, instructional, reinforcement, reactive strategies and data collection processes. Obtaining this assurance requires onsite observation and coaching.

When plans are found to be ineffective, staff become discouraged. Plan authors may redesign the plan and retrain the staff. However, if the implementation of the revised plan isn’t monitored, it is also likely to fail. Over time, staff become frustrated and disillusioned. They may doubt that their efforts to support positive behaviors will ever be successful.

If systematic observations of staff performance have not been a regular component of staff supervision, both staff and supervisors may be reluctant to adopt this practice. There are ways to increase acceptance by staff:
- Set clear expectations regarding the level of performance that is expected. Provide staff with sufficient training and supported practice to ensure that they can confidently implement PBS plans.
- Provide immediate and positive reinforcement when staff carry out plans proficiently and effectively.

Reid and Parsons (2002) recommend that staff training on each individual’s PBS plan include:
1. Actual demonstrations of how to perform each support included in the PBS plan. Demonstrations are most effective if conducted in the settings where the staff person will be expected to implement the PBS plan.  
2. Opportunities for trainees to perform each support strategy included in the PBS plan.
This may begin in a role-play situation but should be followed by on-the-job observations in the actual support environments.

3. Feedback regarding the staff person’s proficiency in performing each skill and additional instruction if needed.

Practice refines skills and builds confidence in staff. Practice frequently prompts questions from the staff attending the training and ensures that the trainer is available to answer questions regarding likely situations the staff may face when implementing the plan.

Specific strategies for performance and other kinds of monitoring activities include:

a. **Check-in frequently with all DSPs to support and modify performance as needed.**
   Performance measures have the best or most impact on plan fidelity (noel et al., 2000). Data is shared in the form of charts and graphs that show how consistently the plan is being carried out as designed. Feedback is usually supplied briefly (2 - 5 minutes) on a daily basis and can be faded when implementation levels appear to stabilize at their highest level (DiGennaro, Martens, & McIntyre, 2007).

b. The Supervisor should engage the team in using data from this process to modify or strengthen the contextual fit. An example of this would be a plan that is working well in the early evening in a residential setting but not at bedtime because of reduced staffing levels and considering how to address the problem so the plan can be implemented with fidelity in this unique situation.

c. Develop a daily checklist of Steps for Implementation – which the DSP will self-monitor and compile (for implementation data). Make sure this checklist includes the use of instruction, consequences and reinforcement as well as data collection.

d. Where possible, design interventions to generate artifacts (checklists, tokens, reinforcement charts, etc.) which can be collected as data about the person’s behavior and implementation fidelity.

e. Collect and compile implementation data regularly (twice a week?).

f. Hold regular and frequent discussions with each DSP and the implementation team about the person with I/DD and implementation data – with the Plan Manager – faded over time.

g. Regular and frequent team discussions of challenges that occur and solutions. This approach also helps team members benefit from peer support.

h. Have one person who cares a lot about all the above and makes it their business to monitor these things and insist that they are done – the Plan Manager.

7. **Recognize when and how to modify the plan as implementation proceeds.**

Plan modification is likely to be needed as implementation occurs. The team needs to consider the possibility of plan modification.
during the person-centered planning process when the behavior intervention plan is designed and grant the team reasonable flexibility in what kinds of changes may occur without reconvening the entire team. This approach could include:

a. Setting objective targets that support a gradual access of the final outcome.
b. Setting specific if-then rules that, based on the results data, authorize the team to:
   - Adjust reinforcement
   - Adjust instruction

c. Using a variety of activities and reinforcement options and allowing for staff judgement in adding new items to the list.

8. **Provide appropriate feedback to correct errors or address a lack of continuity.**

   • If corrective feedback is needed, it should be specific and immediate. If necessary, provide guided practice to ensure that staff attain needed skills.
   • During observations, find ways to deliver positive feedback on performance and help staff problem solve situations they find difficult.

Over time, observations will come to be viewed more positively, especially if they make the staff person’s job easier and contribute to their success in supporting individuals with challenging behavior.

9. **Assist staff in understanding what can or can’t be done without authorization.**

This information should be consistently conveyed in the written plan, any guiding checklists and verbally during training as well as at the beginning of shifts. This approach serves as a protection for the staff as well as the supervisor. No aversive techniques may be used without authorization from both the behavior intervention and human rights committees. Reactive components of the plan cannot be implemented until these forms of Due Process have been obtained.

10. **Provide on-going support to assure staff are not isolated or overwhelmed.**

Feedback on staff performance should be a positive experience. AAMR’s *Positive Behavior Support Training Curriculum* (2004) suggests the following protocol for giving feedback:
   - Begin with a positive statement.
   - Tell staff what they did well
   - Tell staff what needs improvement
   - Prompt staff to ask questions
• Tell staff when the next observation will take place
• End with a positive and encouraging statement

Be sure to ask staff how they feel about implementing the plan. Compare responses to the data. Staff may need reassurance that the person is making progress and that occasional setbacks are to be expected. When this happens, encourage staff to go back to an easier level and build momentum instead of demanding that the person do what they did before (Ory, 2007). Show appreciation for staff effort and impact using a variety of techniques such as thanking staff with sincere appreciation, providing written certificates or commendations, bringing in donuts and sharing positive results.
Chapter 6: Study Questions

1. The term _______ means using the techniques called for in the plan and not introducing other techniques that are contra-indicated by the FBA.

2. Staff will understand the value of collecting data if the recording methods _______ and are ______________________ during or after a busy shift.

3. Identify 8 responsibilities of anyone implementing the behavior plan.

4. The ______________________ gives each team member a clear at-a-glance summary of what is maintaining both the problem and the replacement behavior.

5. DSPS are much more likely to implement a plan with fidelity if ______________________

6. A ___________ strategies are those strategies that take into account or are a match for the team’s understanding of what is maintaining the behavior.

7. Name 5 questions a team leader should ask to assure team buy-in for the plan.
   a.
   b.
   c.
   d.
   e.

8. Name 5 items that belong in the evaluation component of a plan.
   a. A ______________________ that is reasonable based on current performance and is focused on increasing replacement behavior and decreasing problem behavior
   b. A ______________________ focused on increasing desired behavior
   c. Specific ______________________ that will be used to evaluate progress
   d. Specific activities/procedures/forms to evaluate the ______________________ aimed at improving the person’s quality of life
   e. A ______________________ when the team will next meet to review progress

9. One of the team leader’s responsibilities is to ensure the PBS written document is in a format that direct support staff can ________________________.
True and False

10. Diverse settings means all the different places where a plan may need to be carried out.
11. Plan resources need not be developed until the plan has been approved.
12. Dignity and respect are more powerful than salary in retaining staff.
13. When plans are found to be ineffective, staff remain committed.
14. A plan can be implemented whenever the team decides it is appropriate.

15. What are some ways you can show direct support staff that you value their work and respect their efforts?

16. A supervisor’s first approach when errors are made in the implementation of a positive behavior support plan should be to ____________. The second step is to provide ________________ and to identify ____________ for following the plan.

17. Who is responsible for training and supervising the implementation of PBS plans?

18. The most effect way of assuring that plans are implemented as designed is to provide ________________

19. Training for staff on PBS plans should include
   a. 
   b. 
   c. 
Chapter 7: Monitor & Revise Behavior Support Plans

Objectives:

After completing this chapter, staff will be able to:

- Identify all types of data collected for the PBS plan.
- Explain responsibility for adjusting the plan in response to the data.
- Identify likely causes of behavioral support plan failure and the responses
- Explain requirements for the adoption of restrictive procedures.

Many PBS plans need minor revisions, especially during the initial stages of implementation. The hypotheses that were developed following the Functional Behavioral Assessment (FBA) are the teams’ best “guess” as to the function(s) the challenging behavior served and possible replacement behaviors that would fulfill the same function for the individual. As the plan is implemented, the team will learn more about the person and his or her response to the supports included in the plan. The team evaluates trends in the data (three or more successive data points in the same direction). Trends in data indicate the effectiveness of the support plan. This information should guide the team in decision-making.

1. Use Data-Based Decision Making

Data-based decision-making is a fundamental element of PBS, and is used to assess achievement of objective outcomes, the effectiveness of support implementation and quality of life improvements. Supervisors or plan designers need to share data periodically with team members for the purpose of team-based, person-centered decision making. Guidelines for data review include:

1. Review the definitions of the behavior and the function to determine if they continue to accurately describe what is serving to maintain problem behavior.
2. Review the data collection systems to assure that they continue to be appropriate for the target behaviors.
3. Compare performance of both replacement and problem behaviors with the baseline and determine the rate of progress as well as overall increases or decreases in behavior.
4. Convert raw data to a standardized format and display on appropriately labeled graphs.
5. Identify intervention affects for each type of intervention to the extent possible. Although we may never know if one specific intervention alone is responsible for positive behavior change, we can still examine and compile information on what strategies appear to influence behavior.
6. Use data to make decisions regarding program revisions to maintain or improve behavioral progress, including decisions to maintain, modify, or terminate interventions.

7. Using data to determine if additional collaborations, support and/or assistance is needed to achieve intended outcomes.

8. Consider the durability of the behavior change and support needed for generalization and maintenance.

9. Examine data to assess achievement of broader goals such as:
   - Reduction in the need for crisis intervention
   - Behavior changes across settings or circumstances
   - Participation in inclusive activities
   - Expansion of relationships (i.e., friendships)
   - Increased independence
   - Engagement in meaningful activities
   - Personal satisfaction with life

Data on changes in the level of adaptive behavior and challenging behaviors should be collected daily and summarized weekly. Other measures that assess long-term quality of life issues may be reviewed on a monthly basis (Freeman, Britten, Smith, McCart, & Sailer (2000).

2. Explain Responsibility for Adjusting the Plan in Response to the Data.

Direct support staff often express frustration in the amount of time they spend collecting data. Sometimes this complaint has merit. Data collection tools should be easy to access and easy to complete. If the tools are cumbersome, staff may resort to waiting until the end of their shift to complete the paperwork. Validity of data collected several hours after an intervention or behavioral event is questionable.

Direct support staff’s frustration with data collection is also well founded when the data they collect doesn’t trigger needed changes in the PBS plan. When staff implement a support plan and collect data week after week and month after month, they expect and deserve a response. If the data shows an increase in adaptive behavior and/or a decrease in challenging behavior, it should be recognized and celebrated. If the data shows little effect or a worsening of the challenging behavior, staff expect a revision in the plan. If there is no connection between data that is collected and the interventions included in the PBS plan, staff will view the plan and data collection as a waste of their time. Consistency and morale will suffer.
Data must be used on an ongoing basis to make decisions or it should not be collected at all. Sometimes progress is slow and difficult to observe from one day to the next. In these situations, using the data to create a visual representation (graph) helps people see growth.

Functional Behavioral Assessment (FBA) and PBS interventions are continuous processes rather than events with a beginning and end. We collect data during the FBA that are used to design the PBS. After training the staff and implementing the PBS, data is collected to document the effectiveness of the intervention and revise the PBS plan if necessary. Over time, the person’s circumstances and goals change. Changes in data will alert the team to the need for changes in the PBS plan as well.

3. Identify Likely Causes of Behavioral Support Plan Failure and the Responses

Early Intervention: Sometimes new challenging behaviors or resurgence of a challenging behavior that had been reduced through PBS will emerge. Changes in the environment, fluctuating health status, and variations in the implementation of the supports caused by staff turnover are just a few of the reasons for these variations. Identifying changes in the data early, allows the team to recommend proactive interventions to avert more serious episodes of challenging behavior.

Use Data to Troubleshoot: The three most common reasons PBS plans fail to change behavior in the directions that the team desires include (Reid and Parsons, 2004):

1. The plans are not carried out when they should be carried out.
2. The plans are not carried out in the way the plans were written.
3. The plans do not have what is needed to help the person overcome the targeted challenging behavior.

The first two causes for failed PBS plans can be addressed through systematic observations and follow-up with effective training and supervision. When the team has ruled out numbers one and two in the preceding list, a change in the PBS plan may be indicated. Often, minor modifications will increase the effectiveness of the PBS plan. In other situations, there may be a need for more comprehensive problem solving. It may be necessary to reevaluate or expand the original FBA in order to confirm the accuracy of the hypothesis and/or identify additional circumstances, goals, or events that influence the behavior. Teams are cautioned to avoid jumping to this conclusion too hastily. Failure of a plan doesn’t necessarily mean that the function of the behavior was incorrectly identified. Perhaps the interventions selected are not valid approaches for this behavior. Sometimes the hypothesis is correct and
the intervention is a valid approach, but the resources needed (i.e. staffing ratios) to implement the plan are not available. The following probes can be used by the team to troubleshoot ineffective intervention plans (adapted from Freeman, et al, 2000):

Functional Assessment:
• Have new behaviors or new forms of the behavior emerged?
• Have there been any health changes or changes in staff or new relationships?
• Are there any new environmental conditions since the initial functional assessment?
• Was the original hypothesis correct?
• Does the functional assessment need to be expanded?
• Is there a direct and logical link between the hypothesis and the interventions selected?

Interventions:
• Does the plan include information staff need to address the problem behavior?
• Setting events
• Antecedents
• Teaching plans for replacement skills
• Consequences for behaviors targeted to increase and decrease
• Can you identify problems with specific parts of the intervention that need to be modified? (i.e. Is the replacement skill being taught as effective or more efficient than the challenging behavior the person is now using?)
• Are there other interventions in the brainstorming list (See Chapter 4) that could be implemented?

Contextual Fit:
• Is the plan practical enough to be carried out consistently?
• Are additional resources needed to implement the interventions effectively?
• Is there support for the positive behavioral support plan and does everyone believe that the interventions should be implemented?

Working with Consultants: Behavioral intervention for individuals with multiple and complex disabilities may require the expertise of consultants who specialize in mental health issues and cognitive disabilities (i.e., psychologists, psychiatrists, and behavior intervention specialists). It is also important to establish these relationships when medications are included as a component of the PBS plan and when the team doesn’t see the results it expects from the intervention provided.

Creating effective partnerships with consultants takes planning and commitment from the team. Collecting and summarizing data in a format that will be used by the consultant sometimes takes some creativity. Dr. Ruth Ryan (2001) offers tips for establishing collaborative relationships with psychiatrists and other health professions can be found in Appendices H and I. Her tips for “How to Use a Psychiatrist” and “How to Use a Consultant” provide responses to common consultation problems.
Explain Requirements for the Adoption of Restrictive Procedures.

Human Rights Committee: When support plans include interventions that are considered restrictive, external review is **required** by the state and other external regulatory agencies (CQL, 2018 and Title XIX, 2018). Key requirements related to PBS plans and external review of restrictive procedures include:

- The Human Rights Committee (HRC) must review Behavior Support plans that contain limitations of freedoms, or restrictions, or include the use of medication for behavior support, PRIOR to implementation (NDDHS, 2011).
- The HRC assures that restrictive procedures are used only for protection from harm and not for staff convenience or control.
- The HRC reviews plans that contain restrictive procedures at least every six months.
- Persons who are prescribed medication for behavior support also have a behavior support plan that addresses the same behavior for which medication is given.
- Restrictive procedures are not employed until less restrictive procedures have been proven ineffective.
- Before a restrictive procedure is adopted, analysis is done to assure that the harmful effects of the challenging behavior outweigh the potential harmful side-effects of the procedure.
- Staff are trained.

Behavior Intervention Committee: The Behavior Intervention Committee must also review Behavioral Support plans that include restrictive procedures (NDDHS, 2011). The Behavioral Intervention Committee reviews plans to determine if they are technically sound and to determine if they are likely to be effective. Data are also reviewed following the implementation of restrictive procedures to determine whether or not the plan is effective and whether or not it should be continued, revised, or abandoned.
Chapter 7: Study Questions

1. We can say a trend exists in the data when there are ____ or more successive data points in the same direction.
2. Trends in data indicate the ____ of the support plan.
3. In addition to decreases in challenging behavior, what other types of data might the team want to collect?
4. Data collection tools should be easy to ____ and easy to ____.
5. ____ of data collected several hours after an intervention or behavioral event is questionable.
6. Data must be used on an ongoing basis to ____ or it should not be collected at all.
7. What is likely to happen if there is no connection between data collected and the interventions included in the plan?
8. ____ refers to the match between how the plan is implemented and the original plans upon which team members agreed.
9. ____ refers to the extent to which the PBS plan is compatible with the people implementing the plan and the setting in which the interventions are implemented.
10. If there are numerous instances of missing data or inconsistencies in the data, what might be the problem?
11. Functional Behavioral Assessment (FBA) and PBS interventions are ____ processes rather than events with a beginning and end.
12. What are the three most common reasons that PBS plans fail to change behavior? a. __ b. __ c. __
13. After systematic observations, the team has determined that the plan is being implemented correctly and consistently, what is the next step?
14. When support plans include interventions that are considered restrictive, regulatory agencies and accreditation bodies require ________________.
15. What steps must be taken prior to the implementation of support plans that include restrictive procedures?

True and False

16. If there is no connection between data that is collected, and the interventions included in the PBS plan, staff will view the plan and data collection as a waste of their time.
DBS Part II Chapter 1: Study Question Test Answers.

1. cues; resources and instruction

True or False

2. F.
3. T.
4. F.
5. F.
6. F.
7. F.

8. Name the five essential elements of universal support for behavior.

a. teach acceptable social behavior
b. believe that all people can learn
c. intervene early
d. encourage and reward positive behavior
e. evaluate to assure universal support is in place.

9.

a. Reduce the likelihood that challenging behavior will be needed
b. Provide more opportunities for participation, choice and control
c. Provide more opportunities to teach and reward appropriate behavior.

10. 2 Examples of “hidden” social expectations.
Answers will vary and include items like: “Saying please or thank you; refraining from bossing around a co-worker; staying calm in response to a change in the schedule; having good breath; staying in line; eating with your mouth closed, asking permission before giving a hug, speaking with a quiet voice, making eye contact, etc.
Chapter 2: Study Question Answers

1. Environmental supports
2. C; F; B; E; D; A
3. Answers will be individualized to the support environment.
4. a. Meaningful activities are enjoyable and interesting.
   b. Meaningful activities build on the individual's strengths and teach new skills.
   c. People naturally seek stimulation. If the environment is devoid of activity or if the activities presented are repetitive and of little value to the person, people will create their own excitement.
   - Purposeful, age-appropriate activities teach skills needed to be successful in inclusive environments, another predictor associated with positive behavior.
   - Participation in purposeful activities also helps people learn skills that can serve the same function as many challenging behaviors.
5. dependence
6. threatened
7. less
8. teachers
9. A reduction in the level of challenging behavior is an important side-effect of quality of life interventions.
10. control
11. health and well-being
12. Assistive technology
13. the author of the Positive Behavioral Support plan
14. increase, decrease
15. correction, rewards
16. pro-social; challenging
17. Listing of three behaviors that occur because of events that happen prior to the occurrence of the behavior.
18. Answers will vary but should include changes to events, the environment or people in them, that would prevent the occurrence of challenging behavior.
19. Answers will vary but should include appropriate modifications to tasks or requests to avoid triggering a challenging behavior.

Chapter 3: Study Question Answers

1. skill deficit
2. replacement skills, self-sufficiency, access
3. If we don’t identify a replacement behavior, we risk that the person will find a new challenging behavior to meet the need. It is much better to be proactive and pre-select an appropriate behavior to teach and encourage.
4. D
5. a. Are there skills the person already knows how to use but isn’t demonstrating in this situation?
b. Select skills or competencies that will help the person attain personal outcomes, goals, and dreams.
c. The behavior should be socially valid – people must agree that this is an appropriate behavior.
d. There should be frequent opportunities to practice the skill.
e. Determine if there is assistive technology or adaptive devices that could make this skill easier yet accomplish the same function.

6. D
7. “Least-to-most”
8. preferences, learning needs
9. faded

10. Use Least-to-Most” prompting, if that is effective for the individual. Include a plan for how to fade the prompts in the PBS plan. Provide on-site coaching to ensure that staff implement the fading procedure and avoid prompting mistakes.

11. **Advantage.** The person is exposed to all the natural antecedents and consequences that will ultimately control the person’s behavior. If teaching occurs in an artificial setting, generalization may be more difficult to achieve.

   **Disadvantages.** The repeated trials necessary to teach a complex skill may be best practiced in several teaching sessions in an artificial setting. It is sometimes impossible or impractical for the staff to accompany the person in natural settings (i.e., social skills for dating). When others (i.e., sales people, bus drivers, shoppers) observe the teaching process in the natural settings, they may think less of the person and treat him negatively.

12. Find ways to include the skill in a variety of settings, during a variety of activities, and in the presence of many different people.

13. Three ways to develop a good teacher-learner relationship
   - Spend time helping the learner do things the learner enjoys
   - Help the learner adopt appropriate ways to avoid or escape things he or she dislikes
   - Learn to communicate well

14. B
15. A
16. C
17. F
18. E
19. D

20. General instructions to support learning in one-to-one teaching include:
   a. choice
   b. preferred
   c. predictability
   d. Eliminate
   e. successfully
   f. challenging
   g. reinforce
   h. data
   i. End the session
   j. successful
21. Ask the learner to repeat the step and provide enough assistance for the learner to perform the step correctly as soon as an error is noticed.

22. continuous
23. fixed ratio
24. variable ratio
25. fixed interval
26. variable interval
27. C
28. A
29. B
30. A or C

Chapter 4: Study Question Answers
1. C
2. Why are punishment procedures generally ineffective?
   a. Punishment can actually lead to an increase in challenging behavior.
   b. Punishment and efforts to control actually may become setting events for challenging behavior.
   c. Punishment is not effective in the long term.
   d. If the person’s behavior was their best attempt to obtain something they desired or avoid something they disliked, punishing the behavior does not remove that need.
   e. Punishment jeopardizes the relationship between the punisher and the person who was punished.
3. When it isn’t possible to prevent challenging behavior, reactive support strategies (those that occur after the behavior has already occurred) are used to:
   a. Minimize reinforcement for challenging behaviors
   b. Maximize reinforcement for desired and replacement behaviors
   c. Redirect the person toward alternative responses
   d. Ensure safety of the person and others
4. If this support is not provided to staff, they will fall back on what they know best when the challenging behavior occurs. In the worst-case scenario, they may retaliate in an abusive manner in their attempt to gain control of a situation. In these situations, the person served suffers but we also may lose a staff person who could have been more successful if we had done a better job preparing him or her.
5. least
6. functional
7. data-based
8. permission
9. safety
10. Although the behavior support plan for crisis intervention is designed for the individual served, it is important that plan authors recognize that the crisis intervention plan is
developed for the support staff’s behavior.

11. Problems with extinction:
   a. If more than one reinforcer is maintaining a behavior and not all reinforcers are eliminated, the behavior may not extinguish.
   b. Staff should be cautioned that when a behavior is initially put on extinction, the immediate result may be an increase in the behavior’s level of occurrence (extinction burst). It may take time for the behavior to completely disappear.
   c. Another immediate result may be that the person will replace the challenging behavior with another challenging behavior in order to meet the need that the challenging behavior served. Therefore, it is necessary to pair extinction with interventions that teach appropriate communication and social skills to replace the challenging behavior and to ensure the person will have access to the reinforcer.
   d. Sometimes after a behavior decreases due to a successful extinction intervention, the behavior will spontaneously increase.
   e. When the challenging behavior decreases, it is easy to forget to reinforce the replacement behavior. While it is appropriate to fade the reinforcement to a level that naturally occurs, the person will need to receive reinforcement or he will likely try to find another way to obtain it.

12. Coaching on Social Disapproval
   • Not all behaviors require social disapproval. Many can be ignored or redirected. Others, are a single, isolated event that occurs once and is done.
   • If possible, the social disapproval should be given only once. Repeating the statement before the person complies may teach the person to ignore the initial statement. In addition, repetition may be perceived as attention by the individual and may result in reinforcing the behavior.
   • The comments must be brief and include no derogatory comments about the person. If the social disapproval does not immediately follow the behavior it will not be effective.
   • Moralizing or giving explanations at the time of the social disapproval may prompt arguing. It also results in attention that may be reinforcing for the individual. If explanations are needed, they should be given at a neutral time.

13. Crisis plans for inclusion in PBS plans
   Staff need to know:
   • When challenging behavior becomes violent or self-injurious, what options does the caregiver have to help the individual, while also protecting the rights of others?
   • Should the person be removed and if so, how? Where should she go and for how long? Should she be alone or supervised? Should we talk to her or not?
   • What are the expectations of the person while she is removed?
   • What are the expectations of the caregivers?
Seeking Help from Others.

- When should the staff seek help from others? Should it be when the individual's behavior has become dangerous or when the caregiver's reactions have deteriorated and are no longer therapeutic?
- Who should they ask for assistance?
- How should they communicate the need for assistance?
- What are the roles that others should play (i.e. police)? What are the best methods to ensure that others involved understand the individual and the goals of the behavior support plan?

Chapter 5: Study Question Answers

1. Reasons for collecting data:
   a. Informal judgments about behavior are frequently inaccurate.
   b. To determine whether we are justified in trying to change the behavior.
   c. Data collected in the functional assessment process provides information that helps determine why a behavior occurs.
   d. To evaluate whether the intervention we provide is effective.
   e. Data can reinforce the person for learning and improvements in behaviors targeted for reduction
   f. Data increases accountability of plan designers and direct support staff

2. feature, resources (staff skill and time)

3. shorter

4. before, during, after

5. It is best to provide training for the people who will collect the data and observe them collecting the data. Depending on the need for objective and reliable data collection, it may be advised to periodically have a second observer simultaneously collect data on the same behavior or the same person at the same time.

6. Graphing the behavioral measurement results provides both a summary and a visual
representation of what the person is doing. Illustrating data over time on a graph can be
good morale booster for direct support staff. Graphs of behavioral data are one way to
help ensure informed decisions essential to a holistic and coordinated positive
behavioral support.

8. nature; goals
9. C
10. B
11. A
12. H
13. D
14. E
15. H
16. F
17. D
18. G
19. I
20. G
21. A

Chapter 6: Study Answer Questions

Chapter 6: Study Answer Questions

1. fidelity
2. make sense to them; easy to complete
3. a. Refamiliarizing yourself with the plan after being away.
   b. Engaging the person with a disability and DSPs in understanding the plan.
   c. Teaching replacement behaviors as required in the plan
   d. Correctly demonstrating the antecedent and reactive strategies the team plans to use.
   e. Problem solving in new situations based on the intent of the plan.
   f. Collecting data in a valid and consistent manner.
   g. Communicating needed information with other members of the team.
   h. Communicating across programs as needed.
4. Competing behavior pathway
5. if they have played a significant role in developing the plan
6. function-based strategies
7. a. Do you believe this intervention will be effective for the person?
   b. Is this intervention consistent with your values as a DSP?
   c. Is this intervention feasible for you to implement?
   d. Do you have the skills needed?
   e. Are the necessary resources (time, space, staff, administrative support) available?
8. a. short-term objective
b. long-term goal
c. activities/procedures/forms
d. availability of services
e. specific date.
9. understand and apply
10. True
11. False
12. False
13. False
14. False
15. a. Seek input in all phases (development, implementation, and revisions) of PBS plans for people they support.
   b. Provide assurances that safeguard and protect individuals served as well as staff.
   c. Give staff permission and a method for sharing their concerns prior to the development of a plan, during assessment and plan design, and during the implementation phase.
   d. Give attention and quick response to problems with PBS plans identified by staff.
   e. Provide an avenue for decompression and debriefing following crisis situations.
   f. Let staff know how they contribute to positive outcomes.
16. re-teach the correct method, expectations, reinforcement.
17. Responsibilities for training staff in positive behavioral supports is shared among staff trainers, plan authors, supervisors, and peers.
18. systematic observation
19. a. Actual demonstrations of how to perform each support included in the PBS plan. Demonstrations are most effective if conducted in the settings where the staff person will be expected to implement the PBS plan.
   b. Opportunities for trainees to perform each support strategy included in the PBS plan. This may begin in a role-play situation but should be followed by on-the-job observations in the actual support environments.
   c. Feedback regarding the staff person’s proficiency in performing each skill and additional instruction if needed.

Chapter 7: Study Question Answers
1. three
2. effectiveness
3. Additional data to collect:
   a. Acquisition of adaptive responses (replacement skills)
   b. Achievement of broader goals
   c. Reduction in the need for crisis intervention
   d. Behavior changes across settings or circumstances
e. Participation in inclusive activities
f. Expansion of relationships (i.e., friendships)
g. Increased independence
h. Engagement in meaningful activities
i. Personal satisfaction with life
j. Durability of the behavior change (generalization and maintenance)

4. Access, complete
5. Validity
6. make decisions
7. If the data shows little effect or a worsening of the challenging behavior, staff expect a revision in the plan. If there is no connection between data that is collected, and the interventions included in the PBS plan, staff will view the plan and data collection as a waste of their time. Consistency and morale will suffer.

8. Fidelity
9. Contextual fit
10. If there are numerous instances of missing data or inconsistencies in the data, it may signal problems with fidelity and contextual fit.
11. continuous
12. Plans fail because:
   a. The plans are not carried out when they should be carried out.
   b. The plans are not carried out in the way the plans were written.
   c. The plans do not have what is needed to help the person overcome the targeted challenging behavior.
13. Determine if there is a need to confirm the accuracy of the hypothesis and/or identify additional factors that influence the behavior; Determine if the approach in the plan is a valid approach for the function of the behavior; Determine if resources are available to implement the supports needed.
14. External review
15. A review by the human rights committee to ensure that restrictive procedures are used only for protection from harm; and that before restrictive methods are implemented, less restrictive procedures have proven ineffective and that harmful effects of the behavior outweigh the potential side-effects of the restrictive procedure; and staff are trained. In addition, the Behavioral Intervention Committee has reviewed the program to determine if the procedures are technically sound and to determine if they are likely to be effective.
16. T
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