

Chapter 3

Planning-Focused Case Studies for Preschool-Age to School-Age Children

Abstract Section one of this book explores the assessment process throughout childhood, adolescent, and adult years—an imperative first step in beginning any behavior-change program. Section two begins to examine the process of utilizing behavior assessment findings to create intervention programs. The current chapter begins by exploring intervention planning for preschool-age and school-age children. Many of the situations outlined in the case scenarios that are presented involve behavior analysts working as part of multidisciplinary teams, working together with professionals from other disciplines to interpret assessment information, and developing evidence-informed intervention plans. Increasingly, behavior analysts find themselves working alongside and in collaboration with professionals from a range of disciplines (e.g., psychologists, physicians, speech and language pathologists, occupational therapists, and special education teachers). This multidisciplinary team of professionals often strive to adopt a person-centered approach, placing the individual being supported, and their family members, at the center of the decision-making and intervention planning process. At the same time, team members attempt to work together to draw on one another’s areas of expertise to develop cohesive and coordinated intervention plans. While a person-centered multidisciplinary approach has tremendous potential to result in comprehensive intervention plans that draw from, and blend, best practices across disciplines, this process is not without its challenges. Professionals attempting to work together may face competing or contradictory views as to the causes and factors contributing to presenting behavior difficulties. This, in-turn, may then translate into conflicting recommendations for behavior-change programming. In this chapter, entitled “Planning-Focused Case Studies for Preschool-Age to School-Age Children,” these complex multidisciplinary team dynamics are explored through five case scenarios involving preschool-age and school-age children in home, school, clinical, and community settings.

Keywords Preschool · School-age children · Intervention · Intervention planning · Multidisciplinary teams · Psychologists · Physicians · Speech and language pathologists · Occupational therapists · Special education teachers · Best practices

CASE: ii-P1

We all are experts, but none of us alone has all the expertise.

Setting: Home Age-Group: Preschool

LEARNING OBJECTIVE:

- Determine how to form an interdisciplinary team with a behavior analyst

TASK LIST LINKS:

- **Experimental Design**
 - (B-01) Use the dimensions of applied behavior analysis (Baer et al. 1968) to evaluate whether interventions are behavior analytic in nature.
- **Identification of the Problem**
 - (G-01) Review records and available data at the outset of the case.
 - (G-02) Consider biological/medical variables that may be affecting the client.
 - (G-03) Conduct a preliminary assessment of the client in order to identify the referral problem.
 - (G-04) Explain behavioral concepts using nontechnical language.
 - (G-05) Describe and explain behavior, including private events, in behavior-analytic (nonmentalistic) terms.
 - (G-06) Provide behavior-analytic services in collaboration with others who support and/or provide services to one's clients.
 - (G-07) Practice within one's limits of professional competence in applied behavior analysis, and obtain consultation, supervision, and training, or make referrals as necessary.
 - (G-08) Identify and make environmental changes that reduce the need for behavior analysis services.
- **Intervention**
 - (J-07) Select intervention strategies based on environmental and resource constraints.

KEY TERMS:

- **Developmental Pediatrician**
 - Developmental pediatrics is a specialty field within pediatrics, and these professionals observe, examine, and assess children to find out “‘Why is my child developing differently from other children?’ and ‘What can be done to help my child?’” (McMaster Children’s Hospital 2013, p. 5).
- **Interdisciplinary Team**
 - Interdisciplinary (often used synonymously with “multidisciplinary”) teams are comprised of multiple team members from varied disciplines (e.g.,

psychiatry, social work, and behavior analysis) working together for common goals such as effective intervention (Dillenburg et al. 2014).

- **Rapport**

- Rapport is typically a subjective measure of relationship quality which is essential for many relationships, including therapeutic and/or professional ones, often associated with positive interactions (McLaughlin and Carr 2005).

We All Are Experts, But None of Us Alone Has All the Expertise

Luis, a new behavior consultant with a few years of experience in applying the principles of ABA in school settings, had recently moved to a position that demanded a high level of involvement in varied clinical community settings, including their strength: on-site IBI programs. His responsibilities included visiting home settings, but also demanded attention to these home and community settings across a wide geographical area of mostly rural homes, in areas of low population density. However, he spent most of his time delivering IBI at the clinic. After a few months in this position, he sat down with his supervisor to talk over a few issues. He began, “Remember how you told me that there are ‘challenges to rural settings’? I think I finally ‘get’ what you meant! You know about this three-year-old I have just started to work with this week. Well, I have done my first home visit. He is a very complex child in a complicated home setting. He already has multiple diagnoses and some other queries at such as young age.” Gesturing to the thick, heavy file resting on the desk between them. “Look at this—and that’s not all. I have a portable drive full of assessment reports and programming recommendations, including IBI. I met with his parents, I mean, his guardians—really his grandparents—who have unexpectedly taken on the responsibility of parenting this little boy. He is not yet walking, he is not yet talking, and he appears to have little means of letting his wants and needs be known to those around him. He is showing some unusual behaviors, such as a grinding his jaw together in a visible manner during most of his waking hours. But his caregivers are already exhausted. They say that they have been to so many appointments that really neither of them can continue to be employed full time; that every appointment leads to a new referral. They are spending hours on the road taking this boy to appointments for what they call ‘poking and prodding’ but they think all of their time could be used in better ways, such as maybe accessing some type of specialized program. Though they have the assessments in place, they haven’t yet started IBI therapy. Yesterday, they received a phone call about an appointment with a pediatric specialist who is a six-hour drive away, or a plane flight that they can’t afford. And it’s winter!”

“You are getting it for sure,” answered Luis’s supervisor, who smiled at this learning process happening in front of her eyes. “I think this is a good moment for

me to remind you that when you started working here, you mentioned that some of your future goals for your own professional development involved—if I recall correctly—the words leadership, initiative, and creativity.”

“Yes, that’s right,” answered Luis, with trepidation, clearly wondering where this was going.

“It sounds to me like this set of issues you are seeing relates to what a lot of our families complain about, and what we often refer to in the field as ‘fragmented services.’ I am really glad that you have brought this up. It’s very possible that we have sort of become used to this as just the way things are here. But there is one initiative that I think might help this child and family and many more like them: an **interdisciplinary team**. We have quite a few of them in our clinic alone!”

“That’s not exactly what came to my mind in this situation,” responded Luis. “Tell me a little more.”

“In this case, I think that that a focus on early intervention would likely be the right next step for *thinking* about developing a team, since we have so many very young children on our caseloads. It seems that more young families are choosing to move to our rural areas where there is the freedom for movement and certainly a perceived sense of safety that city living might not give them. In any case, such a team would involve many professionals from varied disciplines. For example, we have an occupational therapist on board, who could assess for sensory issues, such as this young boy’s jaw grinding. We might have a speech–language pathologist, who would assess his speech, and teach him ways of communicating. We might have a **developmental pediatrician** do a consulting visit, who can diagnose and support any medical issues. Of course, we would have a behavior analyst who, in addition to teaching new skills and planning for behavioral change, might take on the role of team formation and **rappor**t-building in the group. But the most important piece of a team is collaborating as equal partners who come to understand and appreciate the perspectives, skills, and strengths that each team member brings to the discussion. So what do you think, Luis? Do you want to be the visionary who pulls all of the pieces of the puzzle together into one picture?”

The Response: Principles, Processes, Practices, and Reflections

Principles

(Q1) In developing a new team, often setting a terms of reference for the team is helpful in learning how to work together. Using the chart below as a guide, determine a terms of reference for the team (Table 3.1).

(Q2) As a behavior analyst on the team, the fourth edition task list item G-06 applies: “Provide behavior-analytic services in collaboration with others who support and/or provide services to one’s clients” (BACB, 2012). When planning for the child, potential conflicts between various team members’ priorities and the types of intervention methods that are specific to their field may arise. What may some of these be?

Table 3.1 How to develop terms of reference (Divisions of Family Practice, n.d.)

Components of a term of reference	Questions to answer
1. Purpose	<ul style="list-style-type: none"> • Create the purpose and responsibilities of the committee • Decide the outcomes the committee will accomplish • Determine if the committee is responsible for following up to a need determined by an external group
2. Membership	<ul style="list-style-type: none"> • Determine membership criteria and committee size • Agree upon committee roles • Determine the term for committee members
3. Meetings	<ul style="list-style-type: none"> • Agree upon meeting frequency and location • Determine frequency that terms of reference will be reviewed • Determine who will organize meetings and agenda items
4. Minutes	<ul style="list-style-type: none"> • Determine how and by whom the minutes will be taken and distributed
5. Resources	<ul style="list-style-type: none"> • List the resources needed to fulfill the purpose of the committee
6. Reporting/relationship	<ul style="list-style-type: none"> • State who the committee reports to and how the report occurs • Determine the components that need to be reported and the response time required • Determine a conflict resolution strategy

Processes

(Q3) In Luis’ case, when working with a speech–language pathologist (SLP), the SLP may approach teaching language differently than a behavior analyst. List 5 ways you could incorporate each profession’s methods to teach language in order to work together to develop a language program.

(Q4) In the same situation, when working with an occupational therapist (OT), the OT may suggest working to help Luis develop fine and gross motor skills in a way that is different than you would as a behavior analyst. List 5 ways you could incorporate their teaching methods with those a behavior analyst would use.

Practices

(Q5) A verbal behavior approach is often one way a behavior analyst begins to teach language to a child. However, a popular way that many speech–language pathologists teach language is with core vocabulary. What are the pros and cons to using either approach with a client (Table 3.2)?

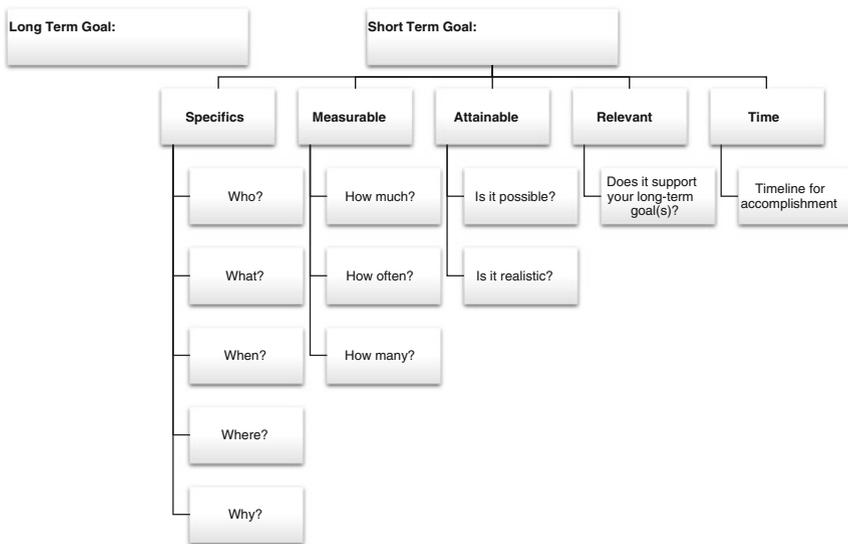
(Q6) When planning for someone like the client in the case study who is failing to meet developmental milestones such as walking and talking, behavior analysts usually complete a behavior skills assessment to determine his or her current skill repertoire. What skills assessment could you use that would benefit all members of the team? What assessments would you avoid that may be difficult to share across disciplines?

(Q7) When planning for a young client, as in this case study, it is important to both understand the immediate, short-term goals, including skills that can be obtained, and understand the long-term goals that the family hopes for their child. List short- and long-term goals that you would have that are optimistic and strength-based. (Table 3.3).

Table 3.2 Verbal behavior approach to teaching language compared with the core vocabulary approach to teaching language (Sundberg and Sundberg 1990; Zangari 2013)

Verbal behavior	Core vocabulary
<ol style="list-style-type: none"> 1. Choose method to communicate, including pictures, sign, vocal language, and speech-generating device 2. Based on the foundation that language is learned by altering the environment, cues, and discriminative stimulus (SD), known as the instruction 3. Based on a function-based view of language (that language is broken into components based on their function) 4. Often begins by teaching the learner to mand (request) for reinforcers 5. Learners are also taught to echo and imitate, enabling them to learn new words, signs, etc. 6. Distinctions are made between the speaker and the listener 7. The learner is also taught to respond to language (listener responding—also known as receptive language) 8. Tacting is another primary verbal operant where the learner labels items 9. Learners are taught more difficult functions of language, while programming in generalization and maintenance 	<ol style="list-style-type: none"> 1. Learner should have access to core vocabulary. Can be via augmentative and alternate communication (AAC) system that is technology based through a speech-generating device, or low tech through a communication board 2. Ensure the AAC system has ample vocabulary, slightly more than what the learner currently knows to ensure they have exposure to future language targets and allows the opportunity to explore these words 3. As the learner begins to use the language that are currently being taught, add more vocabulary to the AAC system 4. Plenty of opportunities should be contrived to practice the use of core words 5. Give support, the learner is learning and will need help to use the words 6. Give access to more words when the learner begins to show signs they are understanding. Mastery is not expected nor is it necessary

Table 3.3 Short- and long-term goal-setting hierarchy (CornerStone 2008)



Reflections

(Q8) When planning for a client who is in a rural area, list the factors that you would need to determine with the team before beginning your behavior analyst services. What factors would influence you before you started your assessment? Would you complete your assessment in the same way as you would if there was not an interdisciplinary team?

(Q9) Read the article below. List the benefits of applying ABA services with an interdisciplinary team from the perspective of the therapist. What are the drawbacks? Now list the benefits and drawbacks of the interdisciplinary team from the client's point of view.

http://www.publish.csiro.au/?act=view_file&file_id=AH070330.pdf

(Q10) Some therapists may shy away from an interdisciplinary approach because it makes it more difficult to implement the services that they are familiar with. By adopting this approach or attitude, what may the therapists, other team members, families, and client be prone to?

Additional Web Links

American Speech-Language-Hearing Association:

<http://www.asha.org>

Canadian Association of Occupational Therapists

<https://www.caot.ca>

The Role of a Behavior Analyst within an Interdisciplinary Team:

http://www.tbi-sci.org/conference/2012Presentations/Schaub-Peters%20Role%20of%20BA_Feb%2025th%2020%20Min_FINAL_1-13-12.pdf

Collaborative Training in ABA:

http://www.academia.edu/2926867/Collaborative_Training_and_Practice_among_Applied_Behavior_Analysts_who_Support_Individuals_with_Autism_Spectrum_Disorder

Verbal Behavior versus Core Vocabulary

<http://autism.outreach.psu.edu/sites/omcphplive.outreach.psu.edu.drpm.automconference/files/32Presentation.pdf>

Teaching Language: ABA versus SLP:

<http://www.autismtrainingsolutions.com/resources/case-study/aba-training-methods-verbal-behavior-speech-language-pathology>

Skills Assessments

<http://www.behaviorbabe.com/assessments.htm>

CASE: ii-P2 Guest Author: Adam Davies

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Change is needed, but who is it that has to change?

Setting: Childcare Age-Group: Preschool

LEARNING OBJECTIVE:

- Implementing the mediator model for change

TASK LIST LINKS:

- **Measurement**
 - (A-12) Design and implement continuous measurement procedures (e.g., event recording).
- **Behavior-Change Considerations**
 - (C-01) State and plan for the possible unwanted effects of reinforcement.
 - (C-02) State and plan for the possible unwanted effects of punishment.
 - (C-03) State and plan for the possible unwanted effects of extinction.
- **Identification of the Problem**
 - (G-01) Review records and available data at the outset of the case.
 - (G-03) Conduct a preliminary assessment of the client in order to identify the referral problem.
 - (G-04) Explain behavioral concepts using nontechnical language.
 - (G-05) Describe and explain behavior, including private events, in behavior-analytic (nonmentalistic) terms.
 - (G-06) Provide behavior-analytic services in collaboration with others who support and/or provide services to one's clients.
- **Measurement**
 - (H-01) Select a measurement system to obtain representative data given the dimensions of the behavior and the logistics of observing and recording.
 - (H-02) Select a schedule of observation and recording periods.
- **Assessment**
 - (I-06) Make recommendations regarding behaviors that must be established, maintained, increased, or decreased.
- **Intervention**
 - (J-06) Select intervention strategies based on supporting environments.
 - (J-07) Select intervention strategies based on environmental and resource constraints.
- **Implementation, Management, and Supervision**
 - (K-02) Identify the contingencies governing the behavior of those responsible for carrying out behavior-change procedures and design interventions accordingly.

- (K-03) Design and use competency-based training for persons who are responsible for carrying out behavioral assessment and behavior-change procedures.
- (K-04) Design and use effective performance monitoring and reinforcement systems.
- (K-05) Design and use systems for monitoring procedural integrity.
- (K-06) Provide supervision for behavior-change agents.
- (K-09) Secure the support of others to maintain the client’s behavioral repertoires in their natural environments.

KEY TERMS:

- **Behavior**

- In applied behavior analysis, this refers to the activity of living beings—the actions of people (the dependent variable) that is observable and measurable (Cooper et al. 2007).

- **Functional Relation**

- In applied behavior analysis, the relationship between two variables—the dependent (behavior) and independent variables (environment) are related in this regard when the behavior (dependent variable) changes with modifications to the environment (Dixon et al. 2012).

- **Language Delay**

- A mild-to-severe lag in the development of a child’s language capabilities (Bochner et al. 1997).

- **Mediator Model of Behavior Intervention**

- A model of behavior intervention where individuals in a client’s life, such as family members or a professional in their home, school, or work life, are provided with the skills necessary to produce clinically significant behavior change through high-quality treatment plans and behavior analyst’s assistance (Minnesota Northland Association for Behavior Intervention 2012).

Change is Needed, But Who Is It That Has to Change?

Ploy, a young three-year-old in a new early learning and childcare center, experiences difficulties while in her childcare environment. Ploy has a **language delay** and is struggling when trying to express her wants and needs to those around her. Ploy tries to communicate with other peers and staff at her center, but is often unable to accurately convey what she means and struggles with peer-to-peer interactions. At one point, last week Ploy grabbed all the crayons off the table and threw them at her peers who were sitting at the table while making sounds that

resembled words, but were incomprehensible. Ploy appears to be frequently frustrated; as a result, she bursts out into tantrums that feature frequent crying, verbal aggression, and throwing objects.

Ms. Tracey, Ploy's Early Childhood Educator, has been working in childcare for more than thirty years. Ms. Tracey is very confident in her approach to working with children and feels content with how she interacts with children. She uses a warm, gentle, but firm manner for interacting with children that seems effective. Ms. Tracey is at a state of tribulation with Ploy due to her frustration and anxiety about Ploy's explosions during classroom-wide instructional periods. Ms. Tracey responds to Ploy's verbal and aggressive **behaviors** by verbally reprimanding her, and placing her in a time-out, Ploy is removed from her peers to sit in the corner alone with her back to the other children. Ms. Tracey's reasoning for this form of discipline is that she feels that Ploy will learn that her outbursts are unacceptable and distracting to the other children during her time spent reflecting while isolated from her peers.

Recently, Ms. Tracey has been struggling with Ploy's tantrums in particular within her large class of fifteen other children, with only one assistant and herself as adult figures. With all the diverse needs of all the other children, Ms. Tracey is finding it difficult to attend to Ploy while ensuring that the other children are receiving the appropriate amount of attention. *I don't know what to do with her*, Ms. Tracey thought, *I wish she would listen to me and act just like the other children. I have no idea what she is saying to me most of the time. She needs to smarten up!* After much tension between Ploy and Ms. Tracey, Ms. Tracey places a referral to a local behavioral support agency for assistance with Ploy. Within her referral, Ms. Tracey specifies that she requires behavior consultation in order to ensure that Ploy changes her behavior.

During the initial meeting between Ms. Tracey and the behavior consultant, Ms. Tracey reinforces the idea that Ploy requires alterations in her behaviors. Ms. Tracey conceives that her actions are unrelated to Ploy's outbursts and states that Ploy is almost uncontrollable, as this has worked for many other children she has taught in the past. Ms. Tracey spends the entire meeting discussing Ploy's behaviors and does not provide her own reactions to Ploy's behavior besides stating that she believes that Ploy "needs to stop." Ms. Tracey quickly leaves the meeting soon afterward and does not appear to think that she can do anything else to help Ploy, but instead thinks that Ploy needs an intervention outside of her classroom.

Upon visiting Ms. Tracey's classroom numerous times, it becomes clear that Ms. Tracey may need to try different techniques and that Ploy may be reacting in different ways to the techniques she is currently employing. Ms. Tracey has begun to leave Ploy alone in a corner in the classroom and does not acknowledge Ploy's presence in large group instruction. The behavior consultant attempts to speak to Ms. Tracey several times, and Ms. Tracey either quickly responds, or barely acknowledges the consultant and walks away. During the latest visit, Ms. Tracey responds to the behavior consultant's entrance into the classroom by stating, "I am very busy. Ploy is over there. Please go spend time with her. Let me know what

program you have for Ploy and how long it might be until she will begin to change her behavior.”

After taking extensive observation data, Ms. Tracey sits down with the behavior consultant to discuss how to assist Ploy. The behavior consultant explains how the environment that surrounds Plot affects her behaviors and reactions; the individuals, objects, and atmosphere around Ploy mould her environment. Thus, Ploy’s behavior and her environment have a **functional relationship**, and Ploy’s behaviors can change with alterations in her environment. The behavior consultant elucidated how the individuals in Ploy’s life impact her behaviors and play a large part in her success at school. The consultant explained, “Ploy requires a **Mediator Model of Behavior Intervention** that provides influential individuals, or mediators in her life, implementing required skills to assist her in managing her behaviors. In other words, she explains that she will not be working individually with Ploy, but would like to take on the role of helping Ms. Tracey implement different strategies with Ploy. “This model involves a high level of interaction between you and I to ensure that Ploy has higher levels of success.” The consultant continued to explain how they could work with Ms. Tracey to intervene Ploy’s behaviors. This would occur with a formal assessment of Ploy’s behaviors, communicating between the consultant and Ms. Tracey to assist in planned interventions, with assessments of progress and regular meetings between Ms. Tracey and the consultant. After explaining this approach to Ms. Tracey, the consultant smiles at her and asks, “How do you feel about this approach? Can we work together to make a successful school environment for Ploy?”

THE RESPONSE: PRINCIPLES, PROCESSES, PRACTICES, AND REFLECTIONS

Principles

- (Q1)** What factors could be impacting Ploy’s behaviors in the classroom?
- (Q2)** Explain why it is important to directly observe an individual’s behaviors in the environment during the assessment and planning process? How is this important to the concept of functional relationships? How could your approach to Ploy’s behavior differ if you had just met with Ms. Tracey and completed an indirect assessment of the behavior?
- (Q3)** Many individuals who are not trained in behavior analysis use punishment to try and change behavior. Indicate any positive and negative punishment Ms. Tracey uses. What is problematic with this? Looking at the Professional and Ethical Compliance Code for Behavior Analysts (2014), what guidelines are relevant to the use of punishment and this case study?

Processes

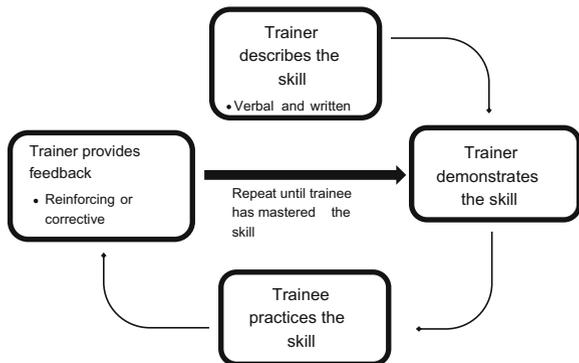
- (Q4)** Explain how you would approach Ms. Tracey, and take her through the process of a Mediator Model of Intervention and behavior skills training to ensure the least amount of tension and most successful approach between yourself and the mediator (Fig. 3.1) (Reference Ethics Box 3.1, Behavior Analyst Certification Board, 2014)?

Ethics Box 3.1

Professional and Ethical Compliance Code for Behavior Analysts

- 2.04 Third-Party Involvement in Services.
 - (a) When behavior analysts agree to provide services to a person or entity at the request of a third party, behavior analysts clarify, to the extent feasible and at the outset of the service, the nature of the relationship with each party and any potential conflicts. This clarification includes the role of the behavior analyst (such as therapist, organizational consultant, or expert witness), the probable uses of the services provided or the information obtained, and the fact that there may be limits to confidentiality.
 - (b) If there is a foreseeable risk of behavior analysts being called upon to perform conflicting roles because of the involvement of a third party, behavior analysts clarify the nature and direction of their responsibilities, keep all parties appropriately informed as matters develop, and resolve the situation in accordance with the code.
 - (c) When providing services to a minor or individual who is a member of a protected population at the request of a third party, behavior analysts ensure that the parent or client-surrogate of the ultimate recipient of services is informed of the nature and scope of services to be provided, as well as their right to all service records and data.
 - (d) Behavior analysts put the client’s care above all others, and should the third party make requirements for services that are contradicted by the behavior analyst’s recommendations, behavior analysts are obligated to resolve such conflicts in the best interest of the client. If said conflict cannot be resolved, that behavior analyst’s services to the client may be discontinued following appropriate transition.

Fig. 3.1 Model of training a mediator by a behavior analyst



Considerations for Mediator Training

<input type="checkbox"/> Motivation How motivated is the mediator? <input type="checkbox"/> View of ABA: Do they think that the Behavior Consultant will fix the individual or are they prepared to take an active role? <input type="checkbox"/> Risk Factors: Are there risk factors that may indicate the mediator will not follow through? <input type="checkbox"/> Emotional Resources: Does the mediator have the emotional resources to continue to work with the challenging behaviors? <input type="checkbox"/> Physical Resources: Is the mediator able to handle the individual physically? <input type="checkbox"/> Secondary Gain: Is there reasons that the mediator does not want the individual to improve?	<input type="checkbox"/> Philosophical & Attitudinal Conflict: Does the mediator believe in the positive approach to behavior or believe that discipline needs to be enforced? <input type="checkbox"/> Personal Emotions: Does the mediator have bias or dislikes that will influence the approach? <input type="checkbox"/> External Constraints: Are their constraints such as workload, money, or staffing that can prevent the intervention from continuing? <input type="checkbox"/> Behavioral Characteristics of the Person: Is the rate, duration, and severity of the behaviors too much for the mediator to handle? <input type="checkbox"/> Organizational Structure: Is structure in place to supervise the intervention and ensure that everyone knows the plan? <input type="checkbox"/> Inter-Personal Issues: Does the mediator have personal needs and thus the mediator training needs to be adapted? <input type="checkbox"/> Training Issues: Is there substantial time for adequate training and follow-through?
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(Willis & LaVigna, 1998)

Fig. 3.2 Considerations for mediator training

(Q5) What may need to be completed before implementing the formal behavior skills training to ensure that this intervention is successful? For example, look at this checklist about considerations for mediator training (Fig. 3.2).

(Q6) How would you explain to Ms. Tracey why using punishment could be problematic with Ploy (Table 3.4)?

Practice

(Q7) Create a plan that you would formulate with Ms. Tracey to assist Ploy in listening to instructions in the classroom.

(Q8) Using the mediator model described above in question 4, describe your plan for teaching Ms. Tracey to implement the above plan.

Reflection

(Q9) Identify any strengths and limitations of your above plan and of using the Mediator Model of Intervention for Ploy and Ms. Tracey.

(Q10) Do you think the mediator model of implementing a behavior program with Ploy would have the same success as if the behavior consultant implemented the plan? What do you think will be key variables that will influence success for the mediator model implementation of the program?

Table 3.4 Positive and negative punishment and the difficulties with using punishment

Concept	Definition	Example
Positive punishment	The addition of a stimulus to an environment after the occurrence of a behavior that reduces the future likelihood of the behavior reoccurring	A child walks from the entrance of the house to the bathroom with muddy shoes. As a result, his mom asked him to wash the floor where he tracked mud <ul style="list-style-type: none"> • The child’s mom is attempting to reduce the child’s walking through the house with muddy shoes by adding the chore of cleaning up the muddy footprints
Negative punishment	The removal of a stimulus to an environment after the occurrence of a behavior that reduces the future likelihood of the behavior reoccurring	A child is playing soccer with her team; after an opponent scores a goal, she removes her shoe and throws it at the opponent. Her coach takes her out of the game <ul style="list-style-type: none"> • The coach is attempting to alter the players behavior by removing her from playing in the game, a preferred activity
Difficulties with punishment	<ul style="list-style-type: none"> • The individual being punished may respond to the punishment emotionally and/or aggressively • In response to punishment, the individual may attempt to escape the environment or avoid it all together. For example, the soccer player above may stop playing soccer • Environments where the behavior is not punished may experience an increase in the behavior—this is known as behavioral contrast • An individual who receives punishment may imitate this behavior • When an individual provides a reprimand following a behavior, the reprimanded behavior may immediately stop, thereby reinforcing the individuals behavior of providing reprimands, and as a result positive praise and contingent reinforcement for desired behaviors decreases 	

Additional Web Links

Mediator Model

<http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3592486/>

Behavior Skills Training

http://opensiuc.lib.siu.edu/cgi/viewcontent.cgi?article=1728&context=gs_rp

Reinforcement and Punishment

<http://bcotb.com/the-difference-between-positivenegative-reinforcement-and-positivenegative-punishment/>

CASE: ii-P3

You mean you want to TRAIN my student?

Setting: Home Age-Group: Preschool

LEARNING OBJECTIVE:

- Understanding the three-term contingency and punishment

TASK LIST LINKS:

- **Fundamental Elements of Behavior Change**
 - (D-16) Use positive and negative punishment.
 - (D-17) Use appropriate parameters and schedules of punishment.
- **Identification of the Problem**
 - (G-03) Conduct a preliminary assessment of the client in order to identify the referral problem.
 - (G-06) Provide behavior-analytic services in collaboration with others who support and/or provide services to one's clients.
- **Assessment**
 - (I-06) Make recommendations regarding behaviors that must be established, maintained, increased, or decreased.

KEY TERMS:

- **Behaviorism**
 - Behaviorism is the philosophy of the science of human behavior (Skinner 1976).
- **Consequence**
 - Anything that occurs after the target behaviors; consequence-based interventions, then, are interventions that occur after the behavior to either increase the target behavior through reinforcement (e.g., token economy) or decrease the target behavior through punishment (e.g., time-out).
- **Experimental Analysis of Behavior**
 - The Experimental Analysis of Behavior (EAB) is a specialization within behaviorism, which focuses on basic research that studies the relationships between behavior and the environment to understand the basic principles of behavior (Skinner 1966, 1976).

- **Punishment**

- Punishment-based strategies can be controversial and ethically fraught, and are consequence-based interventions utilized to reduce the future occurrence of the target behaviors (DiGennaro Reed and Lovett 2008; Ringdahl and Falcomata 2009).

- **Structure**

- Providing structure is a pedagogical strategy that provides “clarity, order, and predictability” to an environment such as the classroom. It often includes elements such as careful environmental arrangement (e.g., work stations and dividers), visual cues (e.g., pictures and color-coding), and consistent routines and procedures (e.g., schedules and timers) (Scheuermann and Webber 2002, p. 123).

You Mean You Want to Train My Student?

It was treat day in the staff room. Fridays—staff treat days—were really the only day that everyone tried hard to be in the staff room at the same time. All the teachers, administrators, and other staff members took turns signing up to bring in snacks, beverages, and other essentials to celebrate the end of a busy teaching week and the beginning of the weekend. This particular day was a school-wide professional development day, and nobody had yard duty or lunch duty. Therefore, the staff room was busy and loud, and everyone delighted in the whole hour available for lunch, treats, and most important—conversation.

The grade one teacher, Mr. Sato laughingly commented to one of her colleagues who teaches the Kindergarten program as she chose from the assortment of baked goods, “This is just like some of us do with our students: giving a treat for good behavior! I wish it were that easy. Remember Sandy from last year? He sure is a handful, now. What was he like last year?”

The Kindergarten teacher licked her finger and pursed her lips while she thoughtfully considered her response. “Well, he was up and down, really. I specifically remember that he had a really tough time on Mondays and Fridays—just like we do sometimes.” She laughed and continued, “I also remember that we had to provide him with a lot of **structure** or he struggled with his behavior. You never know at that age, though. Sometimes it just takes a while to get adjusted to the school system. I don’t think he spent much time out of the home before coming here.”

Mr. Sato considered this new information. “Well, I am really looking forward to this afternoon’s workshop on applied behavior analysis. I need some new tricks for Sandy. I seem to be doing okay with the rest of the class, but I just don’t get him at all. And once he starts acting up, he gets a lot of the other boys riled up too. If I can’t break this pattern, I am going to have a really big problem getting through

June.” He glanced at the wall. “It looks like our time is almost up. Do you want to head down together?”

The Kindergarten teacher and Mr. Sato joined what looked like about fifty other staff members, happily taking some social time together. The room was quite full. *This must be a really popular topic*, Mr. Sato thought. *I just hope it is something that works.*

The workshop began with Mr. Sato carefully listening to the presentation and taking notes on his laptop, which was balanced on his knees. After about an hour, Mr. Sato sighed quietly and shut its lid. Unable to stay engaged and listen any longer, he took the opportunity to fill out a sticky note that audience members were encouraged to use for questions and/or comments to be addressed following afternoon break. On it, he wrote, *I don't get it. Giving treats for good behavior? I don't want to train my student like I trained my puppy, and the students should do it as good citizens because they want to, not because they will get something for it.* He signed his name. His comment was not read aloud in the problem-solving session, but the speaker—a private behavior consultant—came up to him after the break and offered to come in and meet with him after school on Monday to further discuss strategies.

On Monday, Mr. Sato tried to explain what he didn't like about the behavior consultant's presentation. “I just don't believe in training children this way. If a student has a bad behavior, I provide a **consequence** to that student. Right now, I have a student called 'S.' S has a current trick that he does which is tossing things out of his desk, and I don't mean in a gentle way. One by one, he takes things like erasers, pencils, balled-up pieces of paper, and he tosses them towards the front of the classroom. I can usually ignore him for a while, and so can the other students in the class. But after a while, he takes out bigger, heavier, and louder things—like this giant book on dog breeds he likes to keep around—and proceeds into tossing those. It seems like he is trying to hit the ledge where I keep our whiteboard markers. And when this starts happening, other students get involved, and giggle, and imitate him. Then I have to give a consequence to him, so at this point, either I call the office or I send him to the office. Then I send home a note in his agenda. Luckily, the office is right across the hall from my classroom. So I guess that's his punishment. I keep telling him 'Be good, and good things happen,' and 'Be bad, and bad things happen.' I have noticed this tends to be during French class, but I don't know what that has to do with anything. I also can't see how giving him a treat will help!”

“That's quite a bit of information, so thank you for that. An important part of the field of applied behavior analysis, or ABA is that each child—each case—is unique. But it also means that we follow scientifically based patterns of behavior. So we are all alike—but we are also different. This means that, in this field, we carefully assess each student and then apply the principles of **behaviorism**. In my case, all my practice in the field—it is an applied science—is guided by behavior analysis. Way back, it started with a wider field called the **Experimental Analysis of Behavior**. But I apologize. You probably don't want to know all of that! We are not completing ABA for scientific reasons, such as the original animal studies were, ABA is applied in practical settings like yours. My point is that it is a very well-established field that really works and we have decades of careful research that

shows that this. Sometimes, though, we have to back up a little bit and look at how we understand different terms that sometimes have different meanings in the clinics where I work with children and the schools where I work with students. For example, in schools, I hear the terms reward, consequence, but the word ‘punishment’ is really not used and is thought of as a hurtful practice. But in ABA, we use the terms reinforcement, consequence, and punishment, but they have quite different meanings, which makes things difficult and we often have to spend some time separating fact from fiction.”

“What do you mean? Can you give an example? And you are quite right. If the school district heard me mentioning punishing a student, they would be all over me!” Mr. Sato widened his eyes with the thought of it.

“Let’s talk about that, then. In ABA, punishment is what we do that decreases a behavior. So, if a student is talking way too loudly in class during group work, you go over and quietly put your finger to your lips in a ‘Shh!’ motion, and that student stops yelling, that’s actually working as a punishment for that student. But you are not being angry or mean or inappropriate in any way to that student, which are some of the meanings we sometimes attach to the word ‘**punishment.**’

“Hmm,” responded Mr. Sato. “That kind of explains a lot. So, what do you think we can do with my student ‘S’?”

The Response: Principles, Processes, Practices, and Reflections

Principles

(Q1) Define, in appropriate professional manner, how you would explain the three-term contingency (ABC sequence) to Mr. Sato (Fig. 3.3).

(Q2) List the times that Mr. Sato used the term “consequence” correctly and incorrectly. What was he really describing?

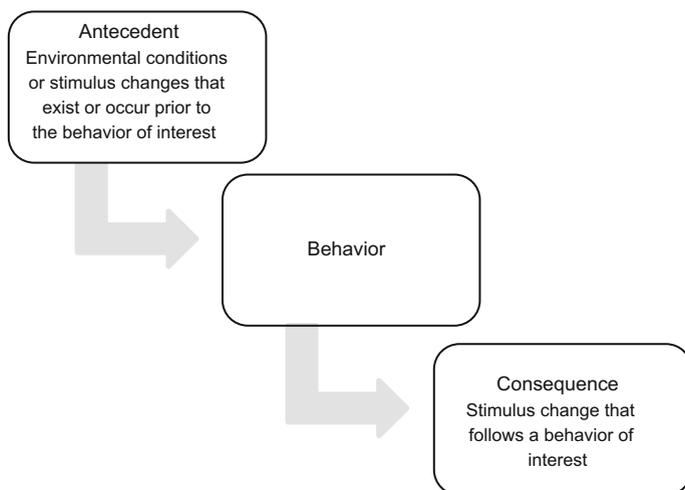


Fig. 3.3 The three-term contingency (Doher, n.d.)

Processes

(Q3) Examine how the Experimental Analysis of Behavior is different than applied behavior analysis utilizing Baer et al. (1968).

(Q4) List the reasons that punishment can be ineffective or lead to other ethical concerns. Read the article: <http://help4teachers.com/punishment.htm>

Practice

(Q5) What would you suggest as a behavior plan for student “S” that could replace Mr. Sato’s current behavior strategies?

(Q6) Develop a script of how you could convince Mr. Sato that you are not “training” his student but rather providing him with structure and other alternative behaviors. What differential reinforcement strategies from the chart below would you use (Fig. 3.4)?

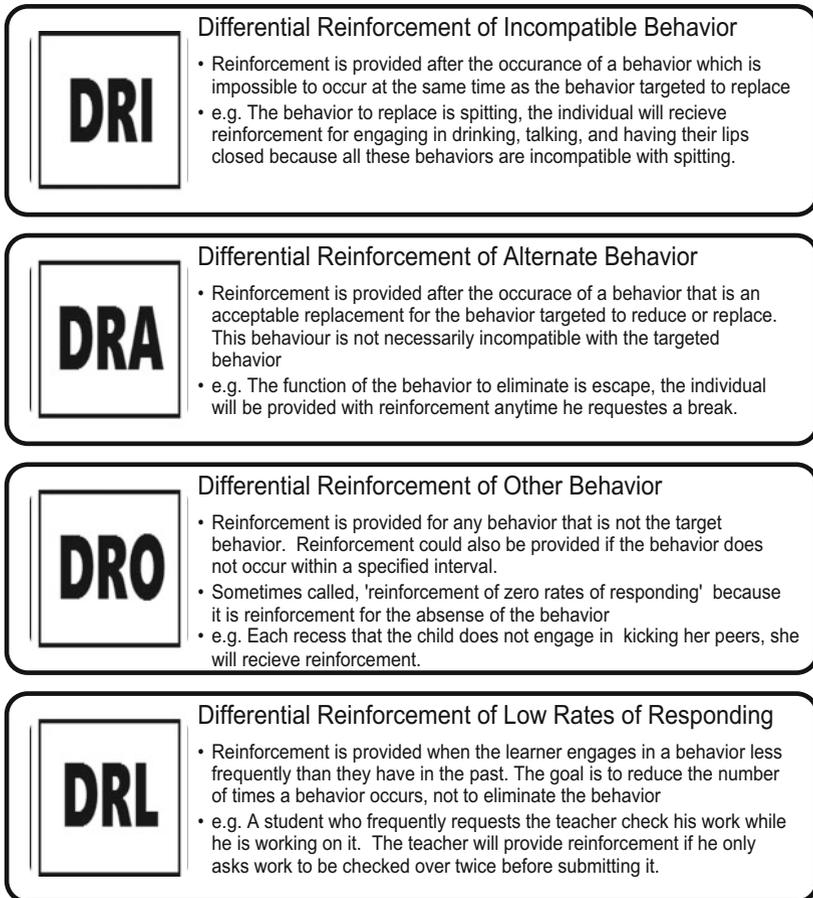


Fig. 3.4 The types of differential reinforcement procedures

(Q7) A goal of many behavior plans is to reduce extrinsic reinforcers such as edibles and tangible items. Create a plan to completely eliminate the use of extrinsic reinforcers, while ensuring that intrinsic motivation and social reinforcement would be effective as reinforcement.

Reflection

(Q8) What ethical safeguards do you also need to implement when using punishment strategies (Reference Ethics Box 3.2, Behavior Analyst Certification Board, 2014)?

Ethics Box 3.2

Professional and Ethical Compliance Code for Behavior Analysts

- 4.08 Considerations Regarding Punishment Procedures.
 - (a) Behavior analysts recommend reinforcement rather than punishment whenever possible.
 - (b) If punishment procedures are necessary, behavior analysts always include reinforcement procedures for alternative behavior in the behavior-change program.
 - (c) Before implementing punishment-based procedures, behavior analysts ensure that appropriate steps have been taken to implement reinforcement-based procedures unless the severity or dangerousness of the behavior necessitates immediate use of aversive procedures.
 - (d) Behavior analysts ensure that aversive procedures are accompanied by an increased level of training, supervision, and oversight. Behavior analysts must evaluate the effectiveness of aversive procedures in a timely manner and modify the behavior-change program if it is ineffective. Behavior analysts always include a plan to discontinue the use of aversive procedures when no longer needed.

(Q9) People often misuse the word consequence for the word punishment. Do you think that people would use punishment strategies as frequently if they used the correct wording? Why do you think that people may rely on punishment strategies versus reinforcement strategies when they are not informed of ABA strategies? See Fig. 3.1 for a reference.

(Q10) Can you think of an instance where punishment strategies could be used incorrectly and lead to the unfortunate harm of a client?

Additional Web Links

Experimental Analysis of Behavior

<http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1338181/pdf/jeabehav00169-0039.pdf>

Some current dimensions of applied behavior analysis (Baer et al. 1968)

<http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1310980/>

The Good, The Bad, The Ugly: Punishment

<http://www.iloveaba.com/2011/12/good-bad-ugly-punishment.html>

Thinning Reinforcement

<http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3196205/>

The Association for Behavior Analysis International Position Statement on Restraint and Seclusion

<http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3089400/>

CASE: ii-P4

Zara’s Ounce of Prevention

Setting: Community Age-Group: School Age

LEARNING OBJECTIVE:

- Describing functional communication, choice, and visual strategies

TASK LIST LINKS:

- **Measurement**
 - (A-14) Design and implement choice measures.
- **Fundamental Elements of Behavior Change**
 - (D-01) Use positive and negative reinforcement.
- **Specific Behavior-Change Procedures**
 - (E-09) Arrange high-probability request sequences.
 - (E-10) Use the Premack principle.
- **Behavior-Change Systems**
 - (F-01) Use self-management strategies.
 - (F-07) Use functional communication training.
 - (F-08) Use augmentative communication systems.

KEY TERMS:

- **Choice Board**
 - A choice board structures choices available for a period of time (e.g., before bedtime) or activity (e.g., recess) by providing a visual organizer of preferred and possible options for children or adults who have difficulty with open-ended choice (Rao and Gagie 2006).
- **First/Then Board**
 - A first/then board is a visual depiction of a less preferred activity (first) followed by more preferred activity (then) (ErinoakKids Centre for Treatment and Development 2012). It is built on the Premack principle, which stipulates that a more preferred activity will be a reinforcer for a less preferred activity (Geiger 1996).

- **“I want ...” Board**

- “I want ...” boards are types of communication boards to encourage requesting (also called manding), with a communication partner using nonverbal language in an organized and efficient way (Special Education Technology British Columbia 2015).

Zara’s Ounce of Prevention

Zara, an eight-year-old girl with a developmental delay, sat down to breakfast at one of the long, busy tables provided by the city’s summer day camp that she was attending. In the middle of the table rested a syrup bottle, salt-and-pepper shakers, paper napkins, jugs of water and juice, and bins of cutlery. Every morning for the past four mornings camp had started out exactly in the same manner. Day camp staff—mostly young students in the first summer after their first year of post-secondary studies in various community services programs—placed large platters of breakfast on each table. Each morning, breakfast consisted of whole wheat buttered toast, scrambled eggs, bacon, and a selection of fruit. After breakfast was placed on the table, Zara immediately stood up, howled in anger, and ran out of the room. One of the staff members of the camp would find her in the cloakroom, sitting on the bench in the corner of the room, yelling and crying, using vocalizations they could not quite understand. The camp’s inclusion counselor would come into the cloakroom and spend most of the morning trying to help Zara to calm down, coaxing her into joining the rest of the group for the morning’s planned activities. The inclusion counselor would talk using a soft and calm voice, pointing out the benefits of swimming, crafts, and even snack time. The inclusion counselor never felt like her interventions did much good, but eventually Zara would respond, and follow the inclusion counselor to the day camp’s planned activities and Zara would join in with campers. Today had been no exception to any of these events, breakfast was as usual, Zara responded in her typical manner, she hid where she had the previous four mornings, the inclusion counselor responded in her characteristic fashion, and eventually Zara got up and followed her to the activity the rest of the campers were engaged in.

During the regularly scheduled get-together of staff members after the campers left on the refurbished school bus for homes near and far throughout the city, the director expressed this about Zara, their biggest camp problem: “Every day we go through the same routine. Every time, she comes here and reacts exactly like this. When is she going to stop already?” He was obviously frustrated. As a young staff with few similar experiences to draw on for support, the director and the inclusion counselor decided to call head office of summer camps, hoping that they would have ideas. And they did have some luck with this strategy.

“Check with her parents,” suggested one staff member at head office. “Always check with parents—they are the experts. Look at her intake form and see what it says. Many children with communication challenges use some sort of alternate communication methods to get what they want and need: maybe visuals, sign, or some sort of technology. If those strategies don’t work, get back to me and I will drive out to your site and help you plan some next steps.”

Right away, the camp staff headed to the small, rarely used office beside the first aid building, and pulled out Zara’s forms from this week’s enrollment. *Zara has a developmental disability*, they read, and nodded. They already knew this. *Please use the visuals in her knapsack for communication. These are the only way she has of expressing her wants and needs to you.* Following an arrow to the back of the form, they continued to read, *I will send them in her backpack each morning. I have added many camp-related graphics. If you need anything else, just send me a note.*

The next morning, the inclusion counselor met Zara as she stepped off the bus and before she entered the dining hall for breakfast. She followed Zara to the dining hall, sure (from her observations) that Zara would like to stay with her routines and stay with the other students at camp. Once Zara was seated, she asked Zara if she could check her knapsack. Zara shrugged her shoulders and shrugged off her knapsack—which she generally kept with her the whole day. *Now maybe we know why*, the inclusion counselor pondered. Reaching in, her fingers touched what felt like small plastic bags and also what felt like a binder. The inclusion counselor pulled out these items and set them on the bench beside Zara. She noticed a **choice board**, and **first/then board**, and what looked like a board for a **visual schedule**. Leafing further through the binder into which all of these visual strategies were organized, she came across an **“I want ...” board** that had a few stripes of what looked like part of the hook-and-loop tape. Unsure what to do, she turned it over and found that Zara’s mother had written helpful directions on the back:

- Hook no more than three choices to the board. Be sure to use choices that Zara can have at the time. REAL choices.
- Ask Zara, “What do you want?”
- Zara will choose what she wants and hook it beside “I want ...”
- Praise Zara and give her the item.

This is fantastic, she thought. *I am going to try it for breakfast if I can get it ready before they serve the food.* The inclusion counselor told Zara that she would be right back, went to the kitchen to consult about the breakfast menu, and added visuals for cereal, eggs, and pancakes to the menu. She took it back to Zara and carefully followed the prompts indicated: “Zara, what do you want for breakfast?”

Zara threw up her hands and then cocked her head to one side with her finger on her lips, appearing like she was carefully considering her options. But it was not more than a brief moment until she tore off the “pancakes” picture, and stuck it onto

the correct place on the board. The inclusion counselor was excited and praised Zara with, “Good choosing!” As the inclusion counselor was providing praise, the breakfast platters were being placed down, she quickly passed her the pancakes and exclaimed, “Pancakes are yummy!”

Breakfast went smoothly and Zara was happy for the first morning ever at day camp. *Clearly*, thought the inclusion counselor, *an ounce of prevention is better than a pound of cure! My grandmother was right!*

The Response: Principles, Processes, Practices, and Reflections

Principles

(Q1) Describe how the first/then board uses the principles of a high-probability request sequence and the Premack principle.

(Q2) Describe how choice boards can change behavior for clients such as Zara?

Processes

(Q3) How was functional communication and augmentative communication used for Zara in the above case? What behavior did it replace (Fig. 3.5)?

(Q4) Using the instructions for the choice board that Zara’s mother created, describe why the instructions and number of choices were laid out in this manner. Describe how you, the behavior analyst teaching Zara to use a choice board, would have initially introduced the system. How many choices would you have provided?

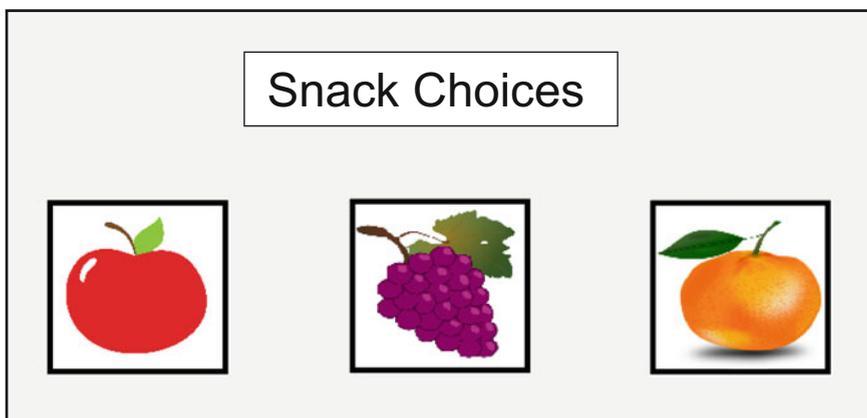


Fig. 3.5 Sample choice board. Pictures would be affixed to the page with hook-and-loop tape, this way the learner can remove the picture indicating their choice

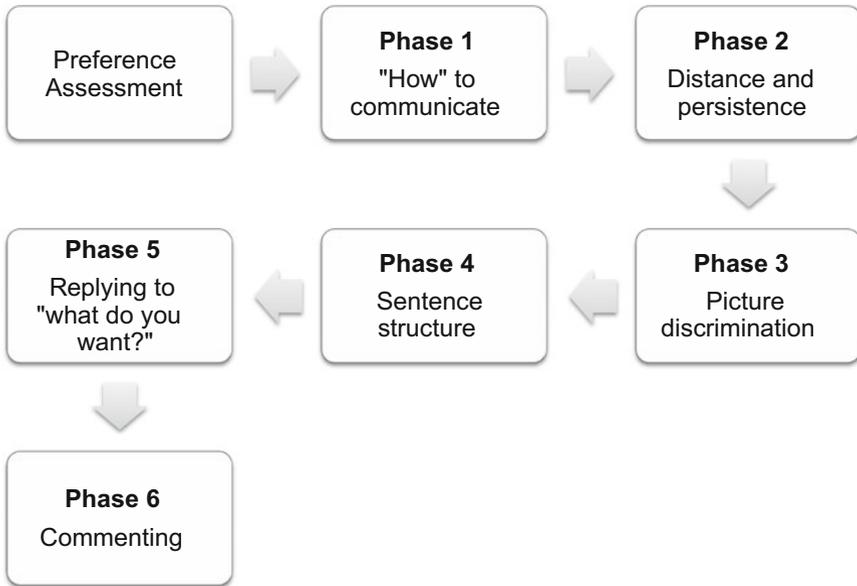


Fig. 3.6 Phases of the Picture Exchange Communication System (Boster and Haghghi, n.d.)

Practice

(Q5) The “I want...” board is a functional communication method, whereby Zara can demand or request what she wants. Describe the steps to implementing a more complex augmentative communication system with Zara. An example of a systematic approach to this is the Picture Exchange Communication System (PECS), as displayed in Fig. 3.6.

(Q6) Based on the information about Zara, what type of visual schedule would you design for Zara? How would you implement it?

Use the following Web site as a resource: <http://www.iidc.indiana.edu/pages/Using-Visual-Schedules-A-Guide-for-Parents>

(Q7) Using the following worksheet, indicate the way that Zara was communicating without her “I want” board and with it (Table 3.5).

Reflection

(Q8) In what way can functional communication training enhance the quality of life for individuals without speech?

(Q9) In the above case study, Zara’s counselors were not using her augmentative communication system or other visual strategies when they began interacting with her. What difficulties do you think individuals might face when using augmentative communication?

(Q10) How do visual strategies act as self-management strategies?

Table 3.5 Chart to document ABC data from the above case study in two conditions, with choice board and without choice board

Antecedent	Behavior		Consequence
With	Choice	Board	Unavailable
With	Choice	Board	Available

Additional Web Links

Choice Board Tip Sheet

<http://visuals.autism.net/tipsheet/en/TipSheet-ChoiceBoardandChoiceBoard%28Iwant%29-final.pdf>

First/Then Board

<http://connectability.ca/visuals-engine/firstthen-board-popup/>

PictureSET (Special Education Technology British Columbia)

<https://www.setbc.org/pictureset/>

Functional Communication Training Tip Sheet

http://autismpdc.fpg.unc.edu/sites/autismpdc.fpg.unc.edu/files/FCT_Steps_0.pdf

Picture Exchange Communication System

<http://www.pecs.com>

CASE: ii-P5

Let’s just make Zara stop.

Setting: Home Age-Group: Preschool

LEARNING OBJECTIVE:

- Forming an interdisciplinary team to decrease behaviors

TASK LIST LINKS:

- **Assessment**
 - (I-03) Design and implement individualized behavior assessment procedures.

- (I-04) Design and implement the full range of functional assessment procedures.
- (I-06) Make recommendations regarding behaviors that must be established, maintained, increased, or decreased.
- **Behavior-Change Considerations**
 - (C-03) State and plan for the possible unwanted effects of extinction.
- **Intervention**
 - (J-02) Identify potential interventions based on assessment results and the best available scientific evidence.
 - (J-04) Select intervention strategies based on client preferences.
 - (J-05) Select intervention strategies based on client’s current repertoires.
 - (J-06) Select intervention strategies based on supporting environments.
 - (J-07) Select intervention strategies based on environmental and resource constraints.
 - (J-08) Select intervention strategies based on the social validity of the intervention.
 - (J-12) Program for maintenance.

KEY TERMS:

- **Functionally Equivalent**
 - Behaviors that are functionally equivalent are “alternative, desired behaviors that the person should perform instead of the problem behaviors,” in essence, making the problem behaviors less desirable, ineffective, inefficient, and irrelevant (O’Neill et al. 1997, p. 71). These are also termed *replacement behaviors* as they have the same function and result in the same reinforcer being delivered (Cipani and Schock 2011).
- **Interviews**
 - Interviews—part of the assessment process—are structured meetings with those exhibiting problem behaviors and/or those supporting them (e.g., parents and therapists), in order to “collect information about events that influence problem behaviors” to identify relevant variables that may lead to effective intervention strategies (O’Neill et al. 1997, p. 9).
- **Maintenance**
 - Maintenance is continuing to independently perform a behavior over time beyond its initial skill training (Miller et al. 2014).
- **Natural Environment Teaching**
 - Natural environment teaching, commonly recognized by its ‘NET’ acronym, simply references “instruction that can occur throughout the day at opportune moments in naturally occurring contexts” (LeBlanc et al. 2006, p. 50).

- **Observations**

- Observations are direct, structured, data-based viewings in order to “validate and clarify summary statements about what predicts and maintains problem behavior” (O’Neill et al. 1997, p. 35), an essential step in behavioral assessment.

- **Questionnaires**

- Questionnaires are one potential part of the assessment processes using structured, written tools. They typically follow interviews and extend and refine information gathered through interviewing (Cooper et al. 2007).

- **Resistance**

- Resistance refers to opposing, rejecting, or sabotaging future directions, such as recommendations for treatment (Bailey and Burch 2010; Block 2011).

Let’s Just Make Zara Stop

It was Zara’s second summer at day camp. Zara, the camp counselors, and the inclusion counselor consistently used Zara’s visuals to help her communicate her wants, needs, and preferences. For example, after lunch at craft time, Zara used her choice board to choose among that day’s offering of crafts, like making a bracelet, tie dying a shirt, or sewing a leather wallet. Things were going fairly smoothly with Zara, compared to the first week of camp last year!

One problem behavior does seem to be rearing its head, though, thought the inclusion counselor. She thought back to Zara’s relationships with her peers. Last year, you wouldn’t even have really known that Zara had peers—much less friends. She didn’t protest at sitting with her peers, even in noisy settings. For example, she sat at the long benches at the dining hall where the campers were singing loud songs and playing those repetitive cup games. She seemed to enjoy the camp-wide games on the acre of lawn and dirt outside. She didn’t mind the laughing, yelling, and splashing that happened at the pool. But now she seems to be aware of her peers, and is starting to get into trouble with them ...

“So, what’s really going on?” said the staff member from head office, conveniently, also expected to perform consultation duties at the local camps due to her Board Certified Behavior Analyst (BCBA) designation.

“Zara is doing really well with almost everything, now that she is able to express her wants and needs. We are continuing to use her visual strategies, and we have trained all of our new staff to use them, too. So that’s not a problem. In fact, we are all really pleased at our smooth start this year after such a troublesome beginning next summer. But I wanted to chat with you about a problem that seems to be growing right before our eyes. Zara has taken to creating some troublesome interactions with her peers. She is doing things like poking other campers with her

fingers, pulling on their shirts, and walking up and putting her face in their face. And it's really annoying the others. They have taken to either ignoring her or telling her to go away, depending on the day. Of course, like you told me last year, I checked her intake sheets and I spoke with her mother, but I couldn't find any information related to these particular behaviors. Zara's mom says that Zara has never had many peer interactions because she spends so much time with adults."

The BCBA responded with a two-part plan for moving forward: "It sounds like what we want to do is teach some new skills. That would be part of a plan. She might not have the social skills she needs to interact effectively with her peers."

"Seriously?" interrupted the inclusion counselor, speaking without quite *thinking* it through, "Teach a new behavior? I called out you here to help me get rid of this problem."

"I get it," responded the BCBA, used to various forms of **resistance**. "But that would only be one part of a plan. And it might not be you teaching these new social skills. But don't forget that summer camp is an inherently social context and is obviously great for **natural environment teaching**. But let me tell you another important piece, before we get into details of teaching new skills. We also need to figure out the function of Zara's behavior. Every behavior has a function—including problem behavior like Zara's. We need to find out that function. To do this, we will need to complete what is called a functional behavior assessment. I am sure you have heard of this."

"Heard of it, yes." The inclusion counselor said, intrigued. "But that is about the extent of my experience."

"You are going to know a lot more pretty soon! For example, it's important to know that is commonly understood that there are four functions, and Zara's is likely one of these, or some kind of combination of a need for attention, tangibles, sensory, or escape/avoidance."

"Oh, it's definitely escape. I am pretty sure that Zara is just trying to get away from the other campers," enthused the inclusion counselor.

"That may be true, but behavior analysis is based in science," answered the BCBA. "So we need to do an assessment for sure, with **observations, interviews, and questionnaires**. You can definitely help with this, as you know Zara well and see her here at camp every day. But we will ask others at camp to help, too, like her group counselor and the craft counselor who has also supported her regularly. Once we know the function, then we can teach her specific skills: ones that are **functionally equivalent**. In other words, it will provide her with the same thing, but in a socially acceptable manner. These more socially appropriate behaviors will replace her problem behavior, so Zara won't have to do it anymore. The new behavior will get her what she needs more easily and effectively."

"I can't possibly argue with that, I guess," said the inclusion counselor, in return, "but I'm still telling you that I really think it would be best if the poking and other problem behaviors would just stop."

"Agreed! But behavior change is a process, and we want to make changes that are appropriate, and ones that will stick long-term, in the world of behavior analysis, after a new skill is taught, we would have a **maintenance** program to ensure that skill continues to be displayed. So if Zara is doing this poking, pulling, and,

well, ‘getting in the faces’ of her peers, we might teach her how to get attention using one of her visuals, for example. We would also have to teach the other campers about how the visuals work and how to respond to Zara when she uses them. Then, Zara would get attention from her peers and she will have no need to engage in those problem behaviors. But that is just an example how it might play out. What do you think? Just say the word and—quite importantly parent willing—we can get it started in the next few days. But let’s put the question of the function aside, now, and talk about the skills-building piece. You mentioned poking other campers with her fingers, pulling on their shirts, putting her face in their faces. These are indeed problem behaviors, but they are giving us an important message that Zara is not getting this quite right. If she is seeking a connection with her peers, she is indeed getting one. But I wonder what would happen if we taught her a more effective way to get their attention: better than pulling on shirts and those other disruptive behaviors you mentioned.” The BCBA paused, looking up pointedly.

“I guess I can see your point. If she could get their attention by, like, waving hello, then she wouldn’t NEED to poke them. So how on earth do we teach that when everyone is running all over the camp all the time?” The inclusion counselor managed to look both pensive and skeptical.

“I though you might ask me that,” responded the inclusion counselor. “How about we use what is in your back pocket?”

Puzzled now, the inclusion counselor patted her own pocket and pulled out her phone. “You mean we should call her mother if this stuff happens?”

“Not quite! I mean that we should record the other campers getting attention the socially appropriate way! They tend to love being in the spotlight, and since they aren’t allowed to use technology in the camp experience, they will be even more interested. Of course, you will have to get permission from their parents, but I think we can start teaching this to Zara using video modeling from her peers. What could be better?”

The Response: Principles, Processes, Practices, and Reflections

Principles

(Q1) List the reinforcers that are currently maintaining the behavior and given the definition of extinction, list the feasibility of them being withheld in the current setting.

(Q2) In the following case study, what are two or more reasons that video modeling might be effective to teach new skills?

Processes

(Q3) Describe what the BCBA means by resistance in this case. Then, research one or more strategies that would be effective to overcome resistance when working with staff who are implementing behavioral strategies.

(Q4) Observations, interviews, and questionnaires were used in the following case to get initial data on the behavior and begin to understand patterns. In the figure below, indicate benefits and downfalls to using these different strategies (Table. 3.6).

Table 3.6 Functional Assessment Strategies (O’Neill et al. 1997)

Functional Assessment Strategy	Benefits	Barriers
<p>1. Functional Assessment Interview: A conversation with persons who witness the challenging behavior to determine variables that influence problem behaviors that cannot always be directly observed or manipulated</p>		
<p>2. Direct Observation: Through observing and collecting data, using such forms as the Functional Assessment Observation (FAO) form or ABC data collection, predictors, consequences, and perceived functions can be determined as they occur in the environment.</p>		
<p>3. Functional Assessment Questionnaires: Pre-made questionnaires such as the Functional Analysis Screening Tool (FAST) or Motivation Assessment Tool (MAS) help to determine the function based on how persons in the environment respond to function-based questions about the behavior.</p>		

Practice

(Q5) Based on the following functional assessment interview excerpt, what do you think the function of the behavior is? Why? What further information do you need to collect? (Fig. 3.7).

(Q6) Based on the following information from the direct observation, do you still believe the behavior is the result of the same function as in question 5? (Table 3.7) .

(Q7) List five generalization and five maintenance strategies that would be effective in helping Zara continue to use the socially appropriate behaviors with peers in the future.

Reflection

(Q8) Below are four sample functionally equivalent social behaviors that could be used for Zara. List both possible benefits and any potential downfalls of teaching each behavior. Why do you need to be conscious of the alternative behaviors when teaching social skills?

- Saying “Hi,”
- Shaking peers’ hand,

Functional Assessment Interview			
Behavior	What Situations?	What does she get?	What does she avoid?
Poking Peer	When she is sitting waiting for instructions to play the game	Attention from peers	n/a
Grabbing Peer's Belongings	Eating meals at the dining hall	Attention from peers. Sometimes, extra food.	n/a
Putting Hands on Peer's Face	During any group activity	Attention from peers or extra items like craft beads	n/a

Fig. 3.7 Functional Assessment Interview Excerpt for Zara

Table 3.7 Direct Observation of Zara's behavior data (O'Neill et al. 1997)

Time	Antecedents						Consequence	Perceived Function						
	Transition	Interruption	Demand/Request	Being Alone	Hard Task	Other		Get Attention	Escape/Avoid	Get Tangible	Sensory	Other	Don't Know	
9:03 AM			X				-Peer attention -Extra bacon	X		X				
10:15 AM			X		X		-Peer attention	X	X					
10:36 AM					X		-Peer attention	X						
11:17 AM	X		X				-Peer attention							
11:56 AM	X		X				-Peer attention -Extra bun	X		X				

- Bringing a toy up to peers to play, and
- Tapping a peer on the shoulder

(Q9) These alternative behaviors can be taught to Zara by an adult. Why is it appropriate or inappropriate to have an adult teach these skills? What skills could a peer teach and what benefits would this approach have?

(Q10) In this situation, what other considerations need to be made for Zara when teaching her social skills? What ways could you determine if her skills are age appropriate? How could you determine what age appropriate skills to teach her?

Additional Web Links

Contingency Pathways Charting

<http://www.pent.ca.gov/beh/path/path.html>

Functional Behavior Assessment

<http://cecp.air.org/fba/>

Teaching Functionally Equivalent Behaviors

<http://nyspbis.org/RF1415/Research%20Articles/Teaching%20Functionally%20Equivalent%20Replacement%20Behaviors%20to%20Students.pdf>

Functional Behavior Assessment Questionnaires, Checklists, Observations, and Interviews

http://www.specialconnections.ku.edu/~kucrl/cgi-bin/drupal/?q=behavior_plans/functional_behavior_assessment/teacher_tools

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