Module 3: Skill Development and Learning for Life
Chapter 3.1: How Individuals with Autism Learn and Adapt

Summary

The purpose of this chapter is to give a broad overview of an approach to assessing skills, as well as determining appropriate interventions. The secondary purpose of this chapter is to help staff understand why some interventions are being chosen by the treatment team (e.g., psychologist, or other mental health professional that are supervising individual cases in group homes).

Learning Objectives

1. Name 2 of the 4 elements in Evidence-Based Treatments (EBT).

2. Name 3 criteria used to evaluate treatments.

3. Identify the importance of EBT for adolescents and adults with autism.

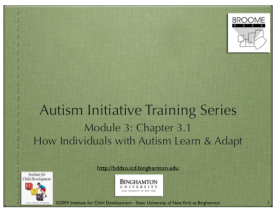
4. Identify why assessment of skills is important.

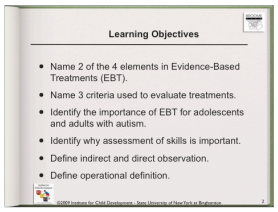
5. Define indirect and direct observation.

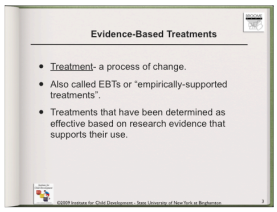
6. Define operational definition.

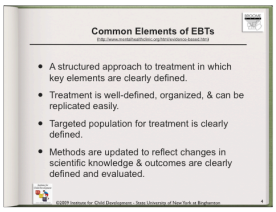
Module 3: Skill Development and Learning for Life
Chapter 3.1: How Individuals with Autism Learn and Adapt

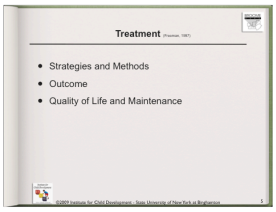
Slides

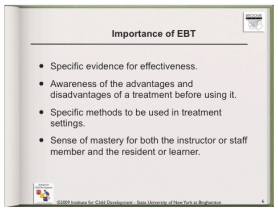


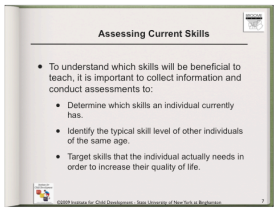


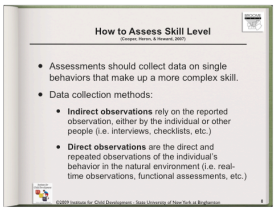


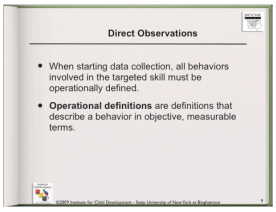


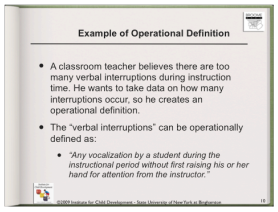


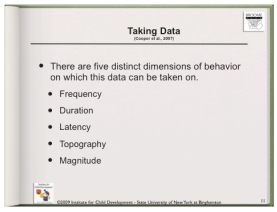


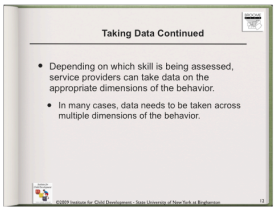


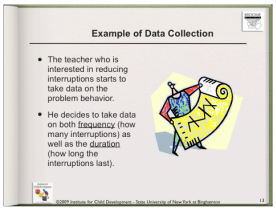


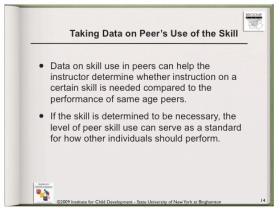


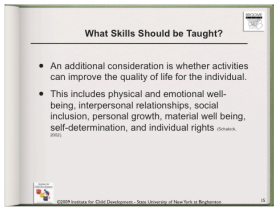












Module 3: Skill Development and Learning for Life
Chapter 3.1: How Individuals with Autism Learn and Adapt

Scripts

Slide One:
The purpose of this chapter is to give a broad overview of approach to assessing skills as well as determining the appropriate approaches to treatment. The secondary purpose of this chapter is also to help you understand why some of the treatments are being chosen by your treatment team as specified by the clinician, psychologist, or other mental health professional that are supervising your cases.

Slide Two:
In this chapter you will learn how to: name two of the four elements in Evidence-Based Treatments also called (EBTs), you will also name three criteria used to evaluate treatments, identify the importance of EBT for adolescents and adults with autism, identify why assessment of skills is important, as well as, define indirect and direct observation and operational definition.

Slide Three:
To begin, lets first define what treatment is. Treatment is a process of modifying or altering something, so evidence based treatments, which are also called EBTs, are empirically supported treatments or supported by data through research. Basically, they are treatments that have been shown to alter or change something with effectiveness shown in research data. The outcome of the research must suggest that the treatment is effective in order to be considered an EBT. Also, EBTs with multiple studies that show support are preferred over studies with limited research.

Slide Four:
To be more specific, there are four basic elements of EBTs. The first is that there is a structured approach to treatment in which key elements are clearly defined. The second is that treatment itself is well defined, organized, and can be replicated easily. The third is that targeted population for treatment must be specified or clearly defined. Fourth, methods are updated to reflect changes in scientific knowledge and outcomes are clearly defined and evaluated. All of these basic elements are important because it effects the way that the treatments are implemented. If a treatment is clearly defined as well as, showing effectiveness for those clear definitions in application with a specific population, individuals who are implementing these treatments may feel more confident that they are actually able to do the treatment as specified in the original protocol.

Slide Five:
So when defining treatment it's important to not only look at the strategies and methods or steps that get to an outcome, but it's important to look at what the outcome actually is, as well as what the quality of life is now that that outcome has been reached and whether or not the goals have been maintained. If treatment is effective, then it will modify what it proposes to change at the outset of the intervention. This may not be 100% accurate all of the time, in terms of reaching 100% goal, but this is why we set things such as mastery criteria, which we will review in more detail later on.

Slide Six:
So, why are EBTs important and why are we talking about them? Well, EBTs provide a framework to look at treatment and to possibly feel better about implementing it knowing that there is research to support its use. First there is specific evidence for effectiveness. So you know what to expect because there is evidence out there that suggests that this treatment will result in this type of outcome. There is awareness of the advantages and disadvantages of a treatment at the outset of treatment before you begin implementing it. Also, specific methods to be used in treatment settings can be specified, so there may be different ways to implement the treatment depending on where you are doing the treatment. There is a sense of mastery for both the instructor or staff member as well as the learner or individual because there is an ability to set goals and be able to achieve them and evaluate them based on what's already out there in the data. However, after choosing the most effective treatment for an individual's needs, there are some steps that must be completed first in order to use the treatments correctly.

Slide Seven:
We will begin by talking about how to assess current skills and why it is important. So, when observing the individual it is important to look at which skills will be most useful to teach. This can be done by collecting information through observation as well as, conducting other types of assessments. When collecting information and planning for assessments, it's important to determine which skills an individual currently has because you wouldn't want to teach something that they already know how to do. You also want to identify the typical skill level of other individuals of the same age. You want to make sure that the skills you are teaching are developmentally appropriate. So for an adolescent or adult, it could be completely expected that they are able to pack their own lunch for the day for vocational or day programs. So these sorts of skills can be expected. Also, it's important to target skills that the individual actually needs in order to increase their quality of life. Remember and you will hear this throughout the entire training series, functional skills are much more useful than say academic skills or specific skills that only target very small portions of an ability. It's important to look at whether or not these skills actually serve the purpose of advancing quality of life and importing that individual's sense of self-competence.

Slide Eight:
So, how do we go about assessing skill level? Assessments should collect data on single behaviors that make up a more complex skill. This helps you to determine whether or not an individual has an actual full skill set or maybe a partial part of the skill set for the entire complex behavior, or maybe the individual does not have the skill at all so you will have to start from the bottom up. There are multiple ways to do this, you can start with indirect methods or you can use direct methods. Indirect and direct observations both provide crucial information from both perspectives about an individual's behavior. However, indirect methods typically include things like self-report checklists or interviews with the individual, their caregiver, direct care staff, or other members of the treatment team about an individual's behavior. While this does provide interesting and helpful information it is often preferred to use direct observation because this observation allows you to see the behavior in a specific context that you will probably be performing the treatment in. So direct observation allows you to look at how the behavior looks in the treatment setting prior to implementing any treatment. Which can also help provide a baseline or a beginning way of measuring whether or not treatment gains are made at a later date.

Slide Nine:
Once a target behavior is selected, the next step is to come up with an operational definition of the target behavior before going in for observation. This is because you need to understand what it is you are looking for or looking at before you start collecting data on it. Operational definitions are definitions that describe a behavior in objective or measurable terms. This means that if someone else were to look at the definition you wrote down they would also be able to collect information on the same behavior you were targeting without you having to explain to them exactly what it means.

Slide Ten:
For example, lets say there is a classroom teacher that believes that there are too many verbal interruptions during instruction time and he wants to take data on how many times these interruptions are occurring. The first thing he needs to do is to create an operational definition, so that when he takes data the data accurately represents what he considers to be a verbal interruption. As you will notice presented below, the definition of a verbal interruption by this instructor is any vocalization by a student during the instructional period without first raising his or her hand to appropriately get attention from the instructor. Although this definition seems to be long, the important thing to see here is that the actual characteristics and specifics of what the behavior is and is not are clear in this definition. So that someone else could read this and take data on the behavior for the teacher while he is teaching. This makes it an effective operational definition.

Slide Eleven:
As already mentioned a clear operational definition is key to increasing the accuracy of data collection. More specifically, there are five common dimensions of behavior that are considered when deciding how to define your operational definition as well as how to take data. The first is frequency, which is the amount of times a behavior occurs. The second is duration; this is the amount of time elapsed between the onset and offset of a behavior, so basically how long a behavior happens. The third is latency. This is the time between when the stimulus or an event happens in the environment and the occurrence of behavior. Sometimes people confuse duration and latency. The difference between these is that duration is the amount of time that the behavior happens whereas latency can be thought of more as the lag time between an event or a stimulus in the environment and the time when the behavior begins. The fourth dimension is topography, which is the physical form of the behavior or what the behavior looks like. The final dimension is magnitude. This refers to the amount of force or strength required to engage in the behavior and can sometimes be referred to as intensity or severity.

Slide Twelve:
Depending on the skill chosen to be assessed and the target behavior, service providers can take data on all of these dimensions, so behaviors can be reviewed using frequency, duration, latency, topography or magnitude and any intermixture of these five dimensions. For example if staff want to reduce aggression, they can focus on reducing the frequency of aggression. However it is important to remember that in many cases, you don't want to just focus on one dimension of behavior. So in the example of aggression, lets say you reduce the frequency, what you might not realize if you're not assessing other dimensions of behavior is that the duration of time that the behavior is occurring has increased while the frequency decreased. So the way that you evaluate and define will all involve clearly defining across multiple dimensions what exactly your end goal or end behavior should look like.

Slide Thirteen:
So let's take into consideration the example of the instructor that wanted to decrease verbal interruptions in his class. He might take data on two dimensions, so let's say he chooses frequency, how many interruptions occur during the instructional time, as well as the duration, how long the interruptions last. He could just as well take data on the magnitude, how loud the verbal interruptions are or topography, if it is talking to a neighbor or calling out or just making a lot of noise. There are all different ways to look at this and depending on how he chooses to define it, results in a different way of collecting the data and different ways of intervening.

Slide Fourteen:
So, what if you are having difficultly determining how a skill should look and you want to get to a certain end point and help that individual increase the skill and you're not exactly sure what level they should be at. One way to do this is to collect data on skill use that can help you determine this. You can do this by watching same aged peers or observing someone who is competent in the skill will be able to show you exactly what it might be that you want to look for as an end goal. If it is determined that the skill is necessary, the level of peer skill can serve as a standard for how other individuals should perform.

Slide Fifteen:
Finally, we talked about this before, but let's just review, what skills should be taught? An additional consideration is whether the activities or skills being taught can improve the quality of life for the individual. This includes physical and emotional well-being, interpersonal relationships, social inclusion, personal growth, material well being, self-determination, and individual rights. Quality of life will be covered in more detail in later chapters in this training series, but basically the idea is that when choosing skills you need to chose skills that are functional for the individual that will allow them to have greater autonomy as well as a greater sense of self-competence, access to preferred items or activities that are appropriate for any given situation in order to increase their quality of life and all facets of well-being. Chapter 4.2 will move specifically on to procedures that have shown to be effective in approaches to increasing skill acquisition and assisting in behavior reduction for individuals with autism.

Module 3: Skill Development and Learning for Life
Chapter 3.1: How Individuals with Autism Learn and Adapt

References

1. Cooper, J. O., Heron, T. E., & Heward, W. L. (1987). Applied behavior analysis. Columbus, OH: Merrill.

2. Freeman, B.J. (1997). Guidelines for evaluating intervention programs for children with autism. *Journal of Autism and Developmental Disorders, 27*(6), 641-651.

3. Schalock, R. L., Brown, I., Brown, R., Cummins, R. A., Felce, D., Matikka, L., Keith, K. D., & Parmenter, T. (2002). Conceptualization, measurement, and application of quality of life for persons with intellectual disabilities: Report of an international panel of experts. *Mental Retardation, 6*, 457-470.

4. The Kurt and Barbara Gronowski Psychology Clinic (n.d.). *Our Commitment to Evidence-Based Psychological Treatment.* Retrieved April 4, 2009, from http://www.mentalhealthclinic.org/html/evidence-based.htm

Module 3: Skill Development and Learning for Life
Chapter 3.2: Basic Components of Effective Skill Development

Part 1: Positive and Negative Reinforcement

Summary

The following portion of Chapter 3.2 provides a general overview of positive and negative reinforcement. These techniques are primarily used for increasing behavior that is desirable to the individual and caregiver. Examples of the techniques and methods for their use in applied settings are provided. Finally, additional considerations are highlighted to aid in using these techniques more successfully.

Learning Objectives

1. Define reinforcement.

2. Define unconditioned and conditioned reinforcer.

3. Identify 4 different types of reinforcers.

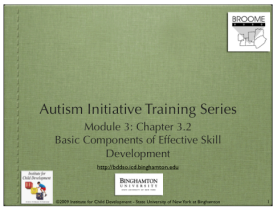
4. Define positive reinforcement and negative reinforcement.

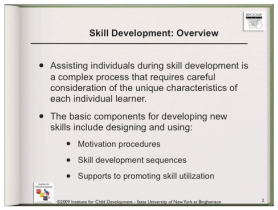
5. Define escape and avoidance conditioning.

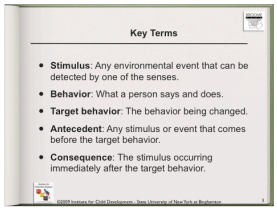
Module 3: Skill Development and Learning for Life
Chapter 3.2: Basic Components of Effective Skill Development

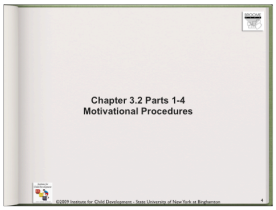
Part 1: Positive and Negative Reinforcement

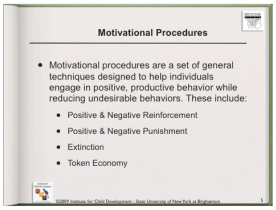
Slides

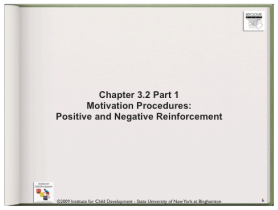


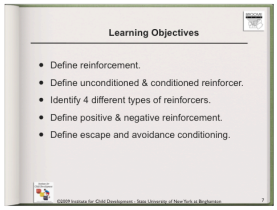


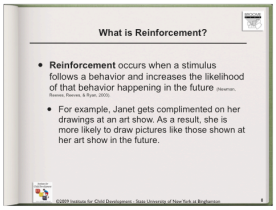


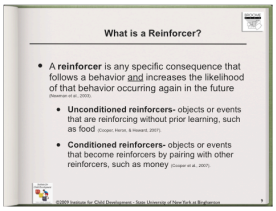


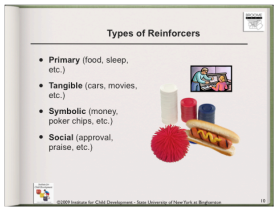


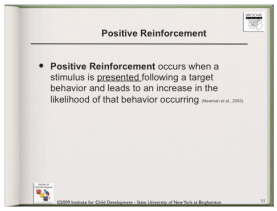


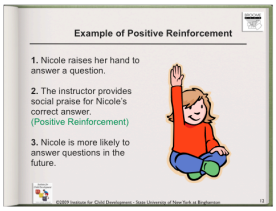


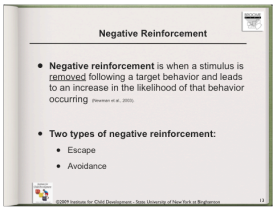


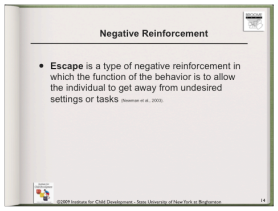


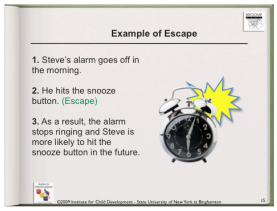


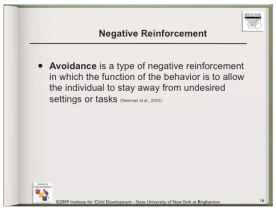


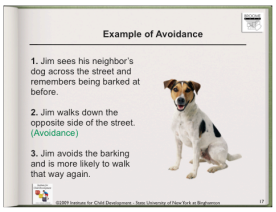











Example of Avoidance
1. Jim sees his neighbor's dog across the street and remembers being barked at before.
2. Jim walks down the opposite side of the street. (Avoidance)
3. Jim avoids the barking and is more likely to walk that way again.
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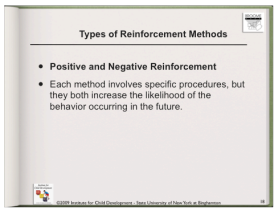
Types of Reinforcement Methods
Positive and Negative Reinforcement
Each method involves specific procedures, but they both increase the likelihood of the behavior occurring in the future.
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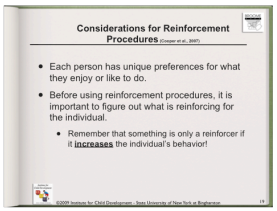
Considerations for Reinforcement Procedures (Cooper et al., 2007)
Each person has unique preferences for what they enjoy or like to do.
Before using reinforcement procedures, it is important to figure out what is reinforcing for the individual.
Remember that something is only a reinforcer if it increases the individual's behavior!
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Module 3: Skill Development and Learning for Life
Chapter 3.2: Basic Components of Effective Skill Development

Part 1: Positive and Negative Reinforcement

Scripts

Slide One:
Module Three: Chapter 3.2 Basic Components of Effective Skill Development.

Slide Two:
Assisting individuals during skill development is a complex process that requires careful consideration of the unique characteristics of each individual learner. There are three basic components used to develop new skills that will be covered in this chapter. The first are motivational procedures, which will be covered in parts one through four. The second component will be skill development sequences, which will be covered in parts five through nine. The third component will be supports that promote skill utilization, which will be covered in part ten. Each part of this chapter is a separate video in the training series in order to allow you a full understanding of each of these procedures.

Slide Three:
Before we begin, you will notice some important terms and definitions that will appear throughout the training slides listed below. Let's review them now.
Stimulus: Any environmental event that can be detected by one of the senses.
Behavior: What a person says and does.
Target behavior: The behavior being changed.
Antecedent: Any stimulus or event that comes before the target behavior.
Consequence: The stimulus occurring immediately after the target behavior.

Slide Four:
Now we will begin by reviewing Motivational Procedures.

Slide Five:
Motivational procedures are a set of general techniques designed to help individuals engage in positive, productive behavior while reducing undesirable behavior. There are four types of motivational procedures which include: positive and negative reinforcement, positive and negative punishment, extinction, and token economies. Again, as previously presented, each of these procedures will be presented separately.

Slide Six:
Part one, positive and negative reinforcement.

Slide Seven:
The learning objectives for this component include: defining reinforcement, defining unconditioned and conditioned reinforcer, identifying four different types of reinforcers, defining positive and negative

reinforcement and defining escape and avoidance conditioning.

Slide Eight:
Reinforcement occurs when a stimulus is presented after the occurrence of a target behavior and the future likelihood of that behavior increases. As you recall from the key terms, a stimulus is any environmental event that can be detected by one of the senses. An example of reinforcement would be compliments that Janet received on her drawing in an art show. Since the compliments are reinforcing to Janet, the future likelihood of her drawing similar pictures increases.

Slide Nine:
A reinforcer is any specific consequence that occurs after the target behavior and increases the future likelihood of that behavior. A reinforcer can either be conditioned or unconditioned. An unconditioned reinforcer is any event or object that is naturally reinforcing without any prior training, such as food and water. A conditioned reinforcer is any neutral object or event that becomes reinforcing by being paired with other known reinforcers, such as money. For example, young children often do not know the value of money because the value of money is learned. Most people learn the value of money through reinforcement by the items they buy with the money. This is a conditioned reinforcer.

Slide Ten:
In addition to conditioned and unconditioned reinforcers, there are four different types of reinforcers: Primary reinforcers are natural reinforcers, like food or sleep. Second, tangible reinforcers are things that you can touch or enjoy for a period of time. For example, toy cars or going to see a movie are an example of this kind of reinforcer. Third, symbolic reinforcers are items that are used to symbolize the presence of reinforcement. Most adults would be familiar with money or poker chips as an example of this type of reinforcer. Finally, social reinforcers are any interaction between two people (praise, hi-fives, thumbs up) that serve as a reward. Remember, all of these items lead to an increase in the future probability of a target behavior. That is why they are called reinforcers.

Slide Eleven:
Now, there are two specific types of reinforcement. The first is positive reinforcement. Positive reinforcement occurs when a stimulus presented after the occurrence of a target behavior increases the future likelihood of that behavior occurring.

Slide Twelve:
An example of positive reinforcement is that Nicole raises her hand to answer a question, and the answer she provides is correct. The instructor praises Nicole for the correct answer; therefore, Nicole is more likely to raise her hand to answer questions in the future.

Slide Thirteen:
The other type of reinforcement is negative reinforcement. This occurs when a stimulus is removed following the occurrence of a target behavior, and the removal of this stimulus leads to an increase in the future likelihood of that behavior. Further, there are two types of negative reinforcement: escape and avoidance. These will be discussed next.

Slide Fourteen:
Escape is a type of negative reinforcement where the individual engages in a behavior to get away from or escape an undesired stimulus or event.

Slide Fifteen:
An everyday example of escape is when Steve's alarm clock goes off in the morning, signaling it is time to get up. Steve pushes the snooze button to escape the loud noise. As a result, the alarm stops ringing and Steve stays in bed. As a result, Steve is more likely to hit the snooze button in the future to escape his alarm and the act of waking up.

Slide Sixteen:
The other type of negative reinforcement, avoidance, is a type of negative reinforcement where the individual engages in a behavior to prevent an undesired stimulus or event.

Slide Seventeen:
An example of avoidance is when Jim sees his neighbor's dog across the street, and he remembers that the dog always barks at him when he walks by it. Jim decides to walk down the opposite side of the street to avoid the unpleasant stimulus (the dog barking). Since Jim was able to prevent the dog barking he is more likely to continue walking on the opposite side of the street to avoid this negative stimulus.

Slide Eighteen:
To summarize, positive and negative reinforcement are alike because they both increase the likelihood of the behavior occurring in the future, but they are different because positive reinforcement increases behavior by adding a consequence that the individual enjoys to increase behavior, and negative reinforcement removes a stimulus that the individual does not enjoy to increase behavior.

Slide Nineteen:
It is important to remember that something is only a reinforcer if it increases the future likeliness of the individual's behavior. Before using a reinforcement procedure, reinforcers should be identified and tested because what functions as a reinforcer for one person is different than what functions as a reinforcer for another.

Module 3: Skill Development and Learning for Life
Chapter 3.2: Basic Components of Effective Skill Development

Part 1: Positive and Negative Reinforcement

References

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Module 3: Skill Development and Learning for Life
Chapter 3.2: Basic Components of Effective Skill Development

Part 2: Deceleration: Issues and Terminology

Summary

This portion of Chapter 3.2 gives an overview of the terms used in describing deceleration and issues related with their use to decrease unwanted behavior. In particular, the chapter reviews the use of the technical term punishment, and how it relates to behavior change. This section describes several techniques for decreasing unwanted behavior along with examples of how these techniques are implemented. Additionally, issues regarding the use of deceleration and ethical considerations are presented.

NOTE ! Punishment has both a colloquial/every day meaning as well as a highly technical meaning. The two uses of the word punishment are very confusing and lead to mis-communication and strong emotional reactions. This chapter is **NOT** about the common use of the term punishment. Rather, this chapter is about the very technical meaning in the context of the analysis of the many, many factors that influence learning, performance, and behavior. Punishment in the common sense is **NOT** a recommended procedure. The goal of this chapter is to understand the precise terminology so as to avoid misunderstanding and confusion.

Learning Objectives

1. Define the technical term punishment.

2. Define the technical term punisher.

3. Define technical terms positive and negative punishment.

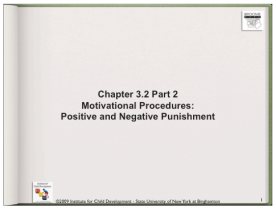
4. Identify 4 technical punishment procedures.

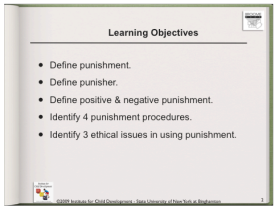
5. Identify 3 ethical issues in using punishment.

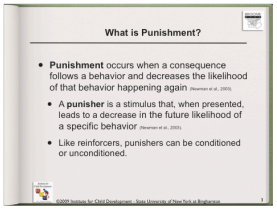
Module 3: Skill Development and Learning for Life
Chapter 3.2: Basic Components of Effective Skill Development

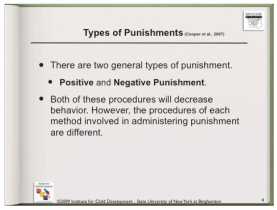
Part 2: Deceleration: Issues and Terminology

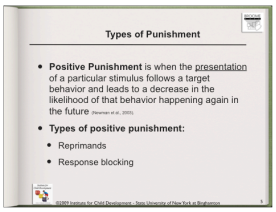
Slides

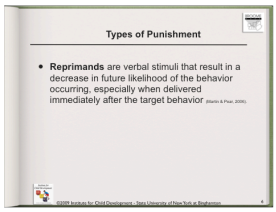


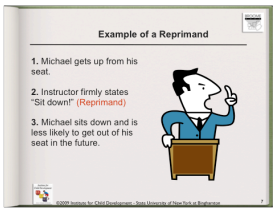


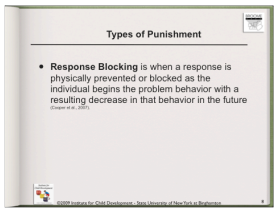


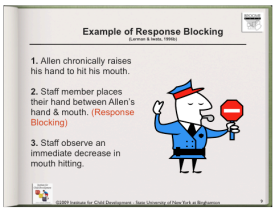


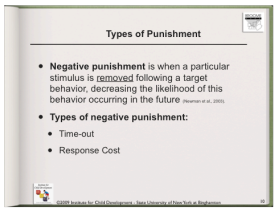


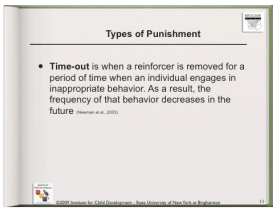


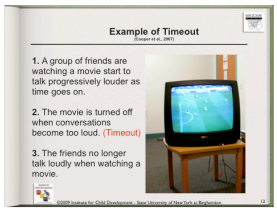


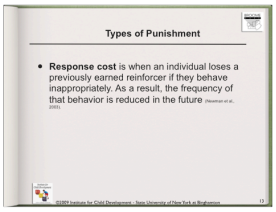


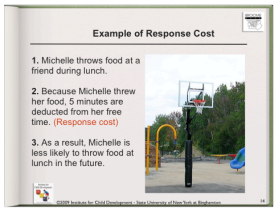


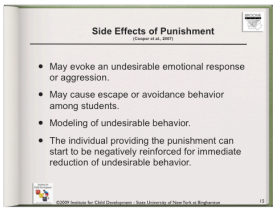


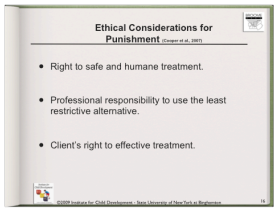












Module 3: Skill Development and Learning for Life
Chapter 3.2: Basic Components of Effective Skill Development

Part 2: Deceleration: Issues and Terminology

Scripts

Slide One:
This is module three chapter 3.2, part two Deceleration: Issues and Terminology.

Slide Two:
After viewing this video you will be able to define punishment, punishers, positive punishment, and negative punishment. You will also learn to identify four punishment procedures and three ethical issues in using punishment.

Slide Three:
Punishment occurs when a consequence follows the occurrence of a target behavior, and as a result of that consequence the future likelihood of that behavior is decreased. A punisher is any stimulus that when presented after the occurrence of a target behavior, reduces the future likelihood of that behavior. Just as introduced for reinforcers, punishers can also be conditioned or unconditioned. An unconditioned punisher is something that is naturally punishing without any training, for example putting your hand down on a hot stove. A conditioned punisher is something that is learned to be punishing by being paired with other known punishers, for example being scolded by your parents after having eaten a cookie without asking. Being scolded only becomes a punisher when it is paired over time with limited access to desired items or parental disappointment.

Slide Four:
There are also two types of punishment: positive punishment and negative punishment. Although, both these procedures are used to decrease behavior, their methods differ.

Slide Five:
Positive punishment occurs when an undesirable stimulus is presented after the occurrence of the target behavior and results in a decrease in the future likelihood of that behavior. There are two types of positive punishment: reprimands and response blocking.

Slide Six:
Reprimands are any verbal stimuli that when presented after the occurrence of a target behavior reduce the future likelihood of that behavior occurring. This should bring back your recall of being scolded by your parents for swiping a cookie without asking.

Slide Seven:
An example of a reprimand is when Michael gets up from his desk without first asking his instructor. As a result, the instructor firmly says, “Sit down!” Michael quickly sits down in his seat, and is less likely to get out of his seat without asking permission in the future. Therefore, the reprimand served as a punisher

and Michael's behavior decreased.

Slide Eight:
The second type of positive punishment is response blocking. Response blocking is when a response is physically prevented when an attempt is made to engage in the behavior, and as a result the occurrence of the behavior decreases.

Slide Nine:
An example of response blocking might go like this. Allen engages in mouth hitting every day for most of the day. Every time Allen lifts his hand to hit his mouth staff place their hand in between Allen's hand and his mouth. This blocks Allen from making the connecting hit between his hand and mouth. As a result of the blocking, the occurrence of Allen's mouth hitting decreases.

Slide Ten:
Now that we have reviewed different types of punishment, we will discuss the partner of positive punishment: negative punishment. Negative punishment occurs when a desirable stimulus is removed after the occurrence of a target behavior and reduces the future occurrence of this behavior. There are two types of negative punishment: time-out and response cost.

Slide Eleven:
Time out is a type of negative punishment, in which access to reinforcement is removed after a behavior happens, and as a result the future occurrence of that behavior decreases.

Slide Twelve:
An example of time out is when a group of friends are watching a movie and as they are watching they get into a conversation that is getting progressively louder. After a few minutes, the conversation becomes so loud that other friends who aren't in the conversation turn off the TV, which was reinforcing to the group. This results in the future likelihood of talking loudly during movies to decrease.

Slide Thirteen:
Response cost is another type of negative punishment where a specified amount of the earned reinforcer is removed after a behavior occurs, and as a result the future occurrence of that behavior decreases.

Slide Fourteen:
An example of response cost is when Michelle throws food at one of her friends during lunch. As a result of this behavior Michelle, loses five minutes from her free time during the day. Therefore, in the future Michelle will be less likely to throw food at a friend because she does not want to lose her free time.

Slide Fifteen:
Punishment is an effective procedure for reducing problematic or undesirable behaviors. However, the use of punishment has many undesirable side effects. This is why punishment procedures are only used after all other procedures have been tried and resulted in no success. Some side effects can include aggression, escape, or avoidance behavior for the individual being punished. Also, the punished individual may imitate the behavior of the person doing the punishing with other people. Very

importantly, abuse can become a possibility when using punishment because the individual doing the punishing may be reinforced for escaping the negative behaviors of the target individual.

Slide Sixteen:
This leads to the important review of ethical consideration when using punishment. Everyone has the right to safe and humane treatment. Safe treatments do not put the caregiver or individual at physical, psychological, or social risk. The least intrusive and restrictive interventions must be used prior to the use of more restrictive procedures. It is only ethical to use punishment procedures after all other procedures have been implemented and found unsuccessful at decreasing the behavior. Everyone has the right to the most effective procedure available, even if the most effective procedure turns out to be a punishment procedure. Keep in mind that all other procedures must have been ineffective before punishment is decided to be the most effective method to decrease behavior. As always, the individual rights of each person must be considered and respected when choosing behavioral procedures.

Module 3: Skill Development and Learning for Life
Chapter 3.2: Basic Components of Effective Skill Development

Part 2: Deceleration: Issues and Terminology

References

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Module 3: Skill Development and Learning for Life
Chapter 3.2: Basic Components of Effective Skill Development

Part 3: Extinction

Summary

This portion of Chapter 3.2 covers the technique known as extinction and how it can be used to decrease or eliminate unwanted behavior. Basic information on procedures and special considerations for application of extinction procedures are presented. Finally, recommendations are made to enhance the effectiveness of extinction.

Learning Objectives

1. Define extinction.

2. Define extinction burst.

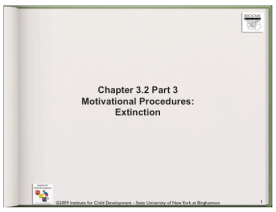
3. Define spontaneous recovery.

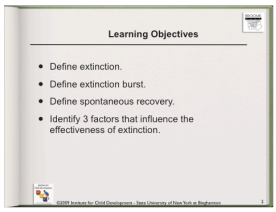
4. Identify 3 factors that influence the effectiveness of extinction.

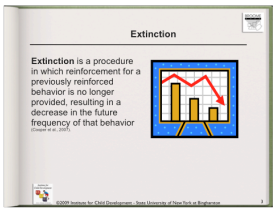
Module 3: Skill Development and Learning for Life
Chapter 3.2: Basic Components of Effective Skill Development

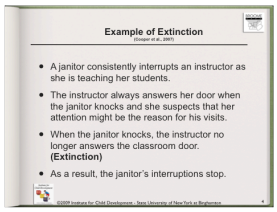
Part 3: Extinction

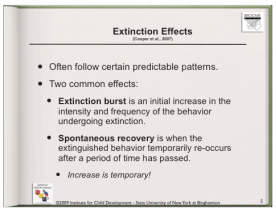
Slides

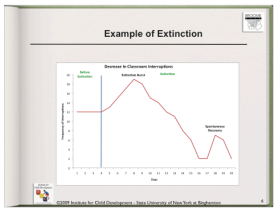


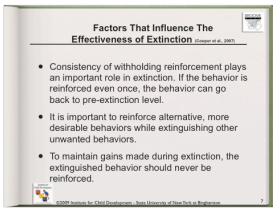












Module 3: Skill Development and Learning for Life
Chapter 3.2: Basic Components of Effective Skill Development

Part 3: Extinction

Scripts

Slide One:
This is module three chapter 3.2, part three: Extinction.

Slide Two:
After watching this video you will be able to: define extinction, extinction burst and spontaneous recovery. You will also learn to identify three factors that influence the effectiveness of extinction.

Slide Three:
Extinction is a procedure in which, reinforcement of a previously reinforced behavior is removed, and the result is a decrease in the future likelihood of that behavior.

Slide Four:
For example, a janitor who interrupts an instructor when she is in the middle of working with her students. Every time the janitor knocks the instructor answers, and she thinks that he might continue doing this because he likes this attention, so the instructor decides that she is not going to answer the door when he knocks. Over time, the occurrence of the janitor knocking decreases because he is no longer being reinforced by the instructor answering.

Slide Five:
Extinction procedures often follow predictable patterns, with two common effects. The first is an extinction burst, which is an initial increase in the behavior when reinforcement is first removed. The second is spontaneous recovery, which is when the extinguished behavior temporarily reoccurs after a period of time has passed. It is important to remember that these increases are temporary and that this is why it is so important to be consistent with the removal of the reinforcer throughout the extinction procedure.

Slide Six:
This graph is an example of extinction; it shows the occurrence of the behavior prior to the extinction procedure, the extinction burst, the decrease of the target behavior, and spontaneous recovery.

Slide Seven:
Consistency in withholding reinforcement is the key to a successful extinction procedure. If the behavior is reinforced even once, the behavior can begin occurring at full force. When using extinction it is important to reinforce alternative appropriate behavior, this way the individual is learning what behavior to engage in instead of the target behavior. In order to maintain gains and reduce the effects of spontaneous recovery do not reinforce the target behavior in the future, as was said before, reinforcing the behavior even one time can cause the behavior to start occurring again.

Module 3: Skill Development and Learning for Life
Chapter 3.2: Basic Components of Effective Skill Development

Part 3: Extinction

References

1. Cooper, J. O., Heron, T. E., & Heward, W. L. (1987). Applied behavior analysis. Columbus, OH: Merrill.

Module 3: Skill Development and Learning for Life
Chapter 3.2: Basic Components of Effective Skill Development

Part 4: Token Economy

Summary

This portion of Chapter 3.2 covers the use of token economies. The basic components of token economies are reviewed along with examples of how they can be applied in multiple settings. Additionally, advantages of using token economies instead of other techniques are presented.

Learning Objectives

1. Define token economy.

2. Define backup reinforcers.

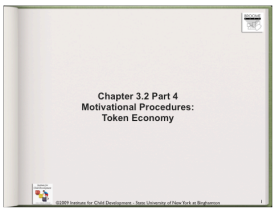
3. Define generalized conditioned reinforcer.

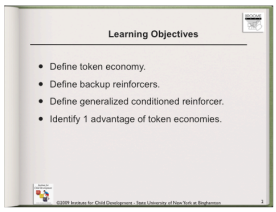
4. Identify 1 advantage of token economies.

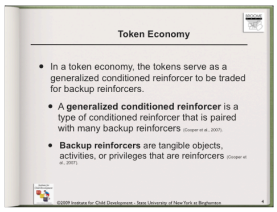
Module 3: Skill Development and Learning for Life
Chapter 3.2: Basic Components of Effective Skill Development

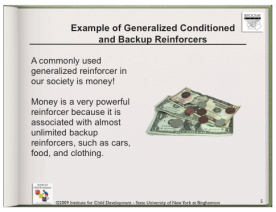
Part 4: Token Economy

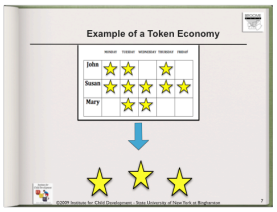
Slides

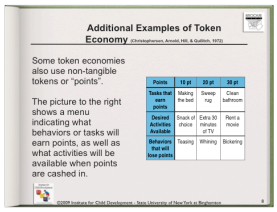












Module 3: Skill Development and Learning for Life
Chapter 3.2: Basic Components of Effective Skill Development

Part 4: Token Economy

Scripts

Slide One:
This is module three chapter 3.2, part four: Token Economy.

Slide Two:
After completing this chapter, you will be able to: define token economy, backup reinforcers, and generalized conditioned reinforcer. You will also learn to identify one advantage of token economies.

Slide Three:
A token economy is a reinforcement system in which conditioned reinforcers called tokens are given to individuals when they engage in a desirable behavior. These tokens are then exchanged for other reinforcers called back up reinforcers. Token economies are widely used and have shown success in a variety of settings.

Slide Four:
In a token economy the token or generalized conditioned reinforcer is earned to receive access to the backup reinforcer. The backup reinforcer is any tangible object, activity or reinforcer that that individual turns in their tokens for.

Slide Five:
A commonly used conditioned reinforcer is money. Money is a very powerful generalized conditioned reinforcer because it can be paired with almost any backup reinforcer for example, food, clothing or cars.

Slide Six:
There are several advantages to using a token economy: They are easier to use to then immediate reinforcement. The tokens are easy to carry and collect. The token economy is easier to use consistently, and it also represents a variety of reinforcers, so the individuals using it are more likely to stay interested in it.

Slide Seven:
This slide shows an example of what a token economy can look like, with the stars acting as the tokens.

Slide Eight:
Some token economies do not even use tangible tokens, but points that can be tallied. The example on the right for example shows appropriate behaviors and their point values, as well as inappropriate behaviors and their deduction value. It also shows how much a desired activity costs. For example, making the bed earns you 10 points, and teasing loses you 10 points.

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Part 4: Token Economy

References

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Part 5: Stimulus Control and Establishing Operations

Summary

In this component, an overview of the procedures of stimulus control and establishing operations are presented. These procedures are primarily used for getting the right skills to occur at the right time. Examples for each procedure are provided along with consideration to how they can be used in instruction.

Learning Objectives

1. Define stimulus.

2. Define stimulus control and establishing operations.

3. Define discriminative stimulus and discrimination training.

4. Identify 1 way establishing operations can aid in instruction.

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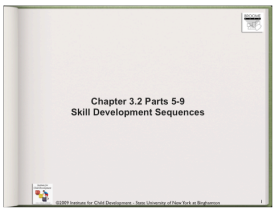
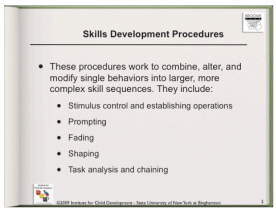
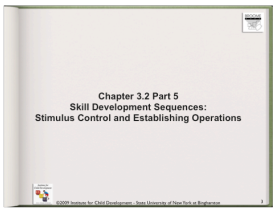
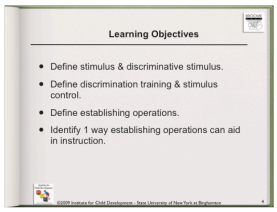
Part 5: Stimulus Control and Establishing Operations

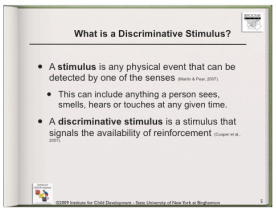
Slides

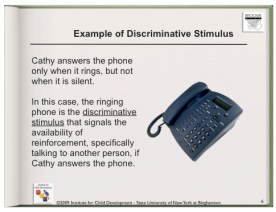


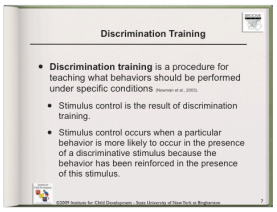


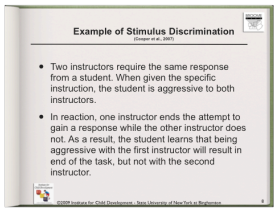


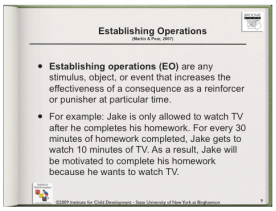


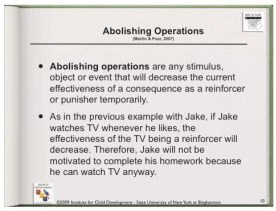


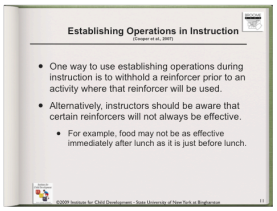












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Part 5: Stimulus Control and Establishing Operations

Scripts

Slide One:
This is the second section within chapter 3.2: Skill development sequences.

Slide Two:
Skill development procedures work to combine and modify single behaviors into larger more complex skill sequences. These include: Stimulus control and establishing operations which will be discussed in part 5, prompting which will be discussed in part 6, fading which will be discussed in part 7, shaping which will be discussed in part 8 and task analysis and chaining which will be discussed in part 9.

Slide Three:
Part Five: Stimulus Control and Establishing Operations.

Slide Four:
The learning objectives for this part of the chapter are: to define stimulus and discriminative stimulus, define discrimination training and stimulus control, define establishing operations and identify one way establishing operations can aid in instruction.

Slide Five:
Let's first define some terms. First, a stimulus is any physical event that can be detected by one of the senses, it includes anything a person sees, hears, tastes, smells or touches. A discriminative stimulus is the stimulus that is present to signal the availability of reinforcement so that a person knows when performance of a behavior will be reinforced.

Slide Six:
An example of a discriminative stimulus is a phone ringing. Cathy will only answer the phone, when the phone rings, therefore the phone ringing is the discriminative stimulus, which signals the availability of reinforcement, talking to the person on the other end.

Slide Seven:
Discrimination training is a procedure where a target behavior is reinforced in the presence of one stimulus, and is not reinforced in the presence of another stimulus. This helps individuals understand that certain situations and settings change the effectiveness of certain responses. Stimulus control is the result of discrimination training. Stimulus control occurs when a particular behavior is more likely to occur in the presence of one stimulus because the behavior has been reinforced in the presence of that stimulus.

Slide Eight:
For example two instructors require the same response from a student, and when given an instruction, the students becomes aggressive. The first instructor decides that when the students becomes aggressive they will no longer require a response, while the other instructor continues requesting a response from the student. As a result the student continues to be aggressive with the first instructor and stops being aggressive with the second instructor. Through stimulus control the student learned that instructor one was the discriminative stimulus for escaping work when he engaged in aggression.

Slide Nine:
A unique type of stimulus control is called an establishing operation. This is any stimulus, object or event that alters the effectiveness of a reinforcer at a particular time. For example: Jake is only allowed to watch t.v after he completes his homework. For every 30 minutes of homework completed, Jake gets to watch 10 minutes of t.v. Jake will be motivated to complete his homework because he wants to watch t.v. This is an example of deprivation; deprivation increases the effectiveness of a reinforcer by not allowing a person to have access to the reinforcer for a specified time period, in this case, no access to the t.v. until 30 minutes of homework is complete.

Slide Ten:
On the other hand, abolishing operations are any stimulus, object or event that will temporarily decrease the current effectiveness of a consequence as reinforcer or punisher. In the previous example with Jake, Jake was motivated to complete his homework because his access to the t.v. was restricted, but what would happen if Jake's access to the t.v. was not restricted? The effectiveness of the t.v. being a reinforcer will decrease, and Jake will not be motivated to complete his homework anymore because he can watch t.v. anyway. This is an example of satiation. Satiation occurs when a reinforcer is no longer reinforcing because the individual had too much access to it.

Slide Eleven:
One way to use establishing operations during instruction, is to withhold a reinforcer prior to an activity where that reinforcer will be used. By doing this the effectiveness of a reinforcer will increase. It is also important to be aware of the fact that certain reinforcers will not always be effective, for example food. Food may not be as effective as a reinforcer when used immediately after lunch, keep this in mind and vary reinforcer use effectively.

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Part 5: Stimulus Control and Establishing Operations

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Module 3: Skill Development and Learning for Life
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Part 6: Prompting

Summary

This portion of the chapter covers various prompting procedures and how they are used in instructional settings. These procedures can also aid in the acquisition phase of learning new or challenging skills. A brief description of the different types of prompts are provided, along with several examples of how prompting is used.

Learning Objectives

1. Define prompting.

2. Define response prompt.

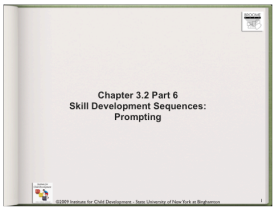
3. Identify 4 types of response prompts.

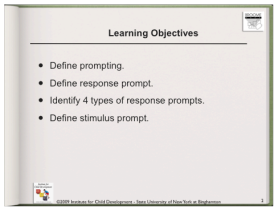
4. Define stimulus prompt.

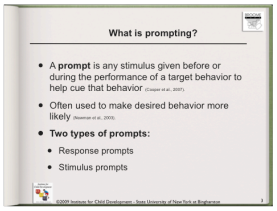
Module 3: Skill Development and Learning for Life
Chapter 3.2: Basic Components of Effective Skill Development

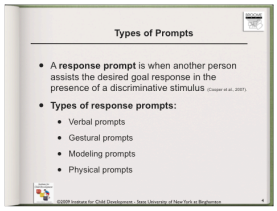
Part 6: Prompting

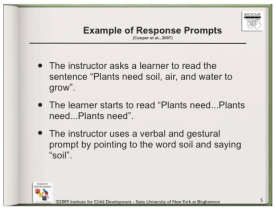
Slides

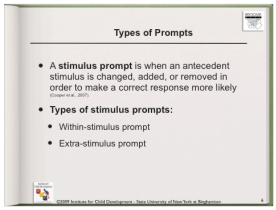


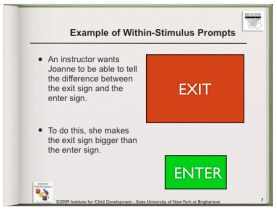


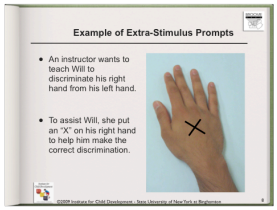












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Part 6: Prompting

Scripts

Slide One:
This is module three chapter 3.2, part six: Prompting.

Slide Two:
After watching this video you will be able to define prompt and response prompt, identify four types of response prompts and define stimulus prompt.

Slide Three:
A prompt is a stimulus or event that is used to increase the likelihood that an individual will engage in a target behavior at the correct time. There are two types of prompts: response prompts and stimulus prompts. Let's take a moment to more specifically define each of these prompts.

Slide Four:
A response prompt is a type of prompt in which the instructor engages in a behavior to assist the individual in engaging in the target behavior in the presence of a discriminative stimulus. Recall from the last component of this module that a discriminative stimulus is the stimulus that is present to signal reinforcement availability. There are four types of response prompts: verbal, gestural, modeling and physical. A verbal prompt is a prompt in which the verbal behavior of another person results in the correct behavior of the individual in the presence of the discriminative stimulus. A gestural prompt is a physical movement or gesture of another person that assists the individual in engaging in the target behavior in the presence of the discriminative stimulus. Modeling prompts are a type of prompt in which the instructor demonstrates the target behavior for the learner. Physical prompts are a type of prompt in which the instructor physically assists the learner in engaging in a target behavior.

Slide Five:
For example, if an instructor asks a learner to read the sentence, "plants need soil, air, and water to grow, and the learner gets stuck and keeps reading "plants need," the instructor can use a verbal by saying the next word in the sentence "soil" and a gestural prompt by pointing to the word soil on the page.

Slide Six:
A stimulus prompt is some change in the antecedent stimulus that increases the likelihood of a correct response (remember that an antecedent stimulus is a stimulus or event that comes before the target behavior). There are two types of stimulus prompts, within stimulus prompts and extra-stimulus prompts. Within-stimulus prompts require some change in the discriminative stimulus to help an individual make a correct discrimination. Extra-stimulus prompts require that a stimulus is added to increase the likelihood of an individual engaging in a correct response.

Slide Seven:
This is an example of within stimulus prompting. An instructor wants Joanne to be able to tell the difference between the exit sign and the enter sign. To assist Joanne in discriminating between the two signs, she changes the appearance of the signs. The instructor makes the exit sign larger than the enter sign to help Joanne learn to identify each sign. In this example, the signs are also different colors. This shows how you can change characteristics that are already a part of the stimulus to prompt a correct response.

Slide Eight:
This is an example of extra-stimulus prompts. An instructor wanted to teach Will to discriminate his left hand from his right hand. To assist Will, she added an "X" to his right hand and explained to him that the hand that has the X is his right hand. The reason that this is an extra-stimulus prompt is because something was added to the learning situation that was not already a characteristic of the stimulus, here shown as Will's hand.

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Part 6: Prompting

References

1. Cooper, J. O., Heron, T. E., & Heward, W. L. (1987). Applied behavior analysis. Columbus, OH: Merrill.

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Part 7: Fading

Summary

This chapter component highlights fading procedures, which can be used for removing prompts once they are no longer needed. Fading procedures can be used for all prompts presented in the previous video. Descriptions of these procedures, along with examples for each are provided.

Learning Objectives

1. Define fading.

2. Define within-stimulus fading.

3. Define extra-stimulus fading.

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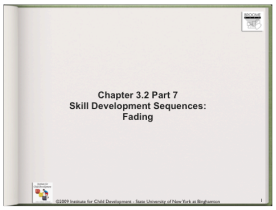
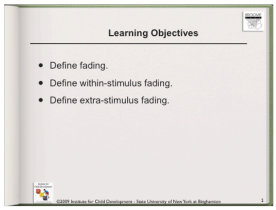
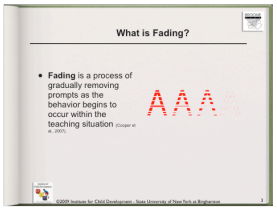
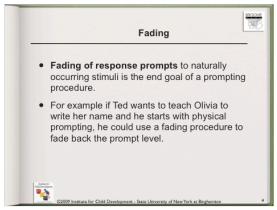
Part 7: Fading

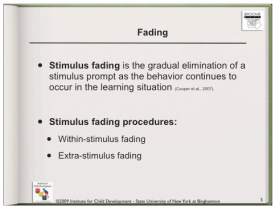
Slides

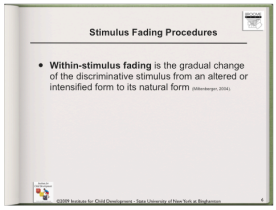


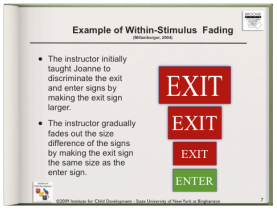


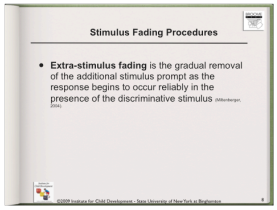


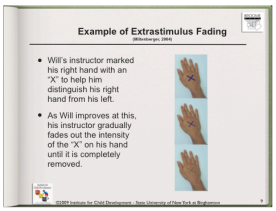












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Part 7: Fading

Scripts

Slide One:
This is module three chapter 3.2, part seven: Fading.

Slide Two:
The learning objectives for this component are to: define fading, within-stimulus fading and extra-stimulus fading.

Slide Three:
So what is fading? Fading is the gradual removal of prompts as the behavior continues to occur in the presence of the discriminative stimulus. This procedure is meant to increase the independence of the individual so that they are performing the behavior unaided.

Slide Four:
The fading of response prompts to the natural stimulus is the end goal of a prompting procedure. For example if Ted wants to teach Olivia to write her name and he starts with physical prompting, he could use a fading procedure to fade back the prompt level. Over time, physical prompts would fade to modeling prompts, then would fade to gestural prompts, and then would fade to verbal prompts, the end goal would be to fade out the verbal prompts so that the behavior is occurring in the presence of the stimulus without assistance from Ted.

Slide Five:
Stimulus fading is the gradual reduction of a stimulus prompt as the target behavior continues to occur in the presence of the discriminative stimulus. There are two types of stimulus fading procedures, within-stimulus fading and extra-stimulus fading, which will be discussed in more detail next.

Slide Six:
Within-stimulus fading is the gradual change of the altered stimulus to its original form as the individual begins to engage in the target behavior.

Slide Seven:
When considering the example of the instructor changing the appearance of the exit and enter signs to help Joanne learn to identify them, within stimulus fading would occur when the instructor gradually decreases the size of the exit sign down to the original size as Joanne begins to correctly discriminate between the two signs. Another further step might be to fade out the colors of the signs so that only the words remain for Joanne to discriminate between.

Slide Eight:
Extra-stimulus fading is the gradual removal of the added stimulus so that the behavior begins to occur in the presence of the natural discriminative stimulus.

Slide Nine:
When considering the example of extra-stimulus prompting with Will, his instructor marked his right hand with an "X" to help him discriminate between his right and left hand. Extra-stimulus fading would then mean that his instructor gradually fades the "X" on his right hand. Over time, the stimulus that was added (the X) would be completely faded out as Will was correctly discriminating between his right and left hand without assistive prompts.

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Part 7: Fading

References

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Part 8: Shaping

Summary

In this section of the chapter, an overview of the shaping procedure is presented. Shaping procedures are generally used to aid in acquiring skills that the individual does not have any prior experience with. A description of these procedures is provided with several examples on how to use shaping across multiple dimensions of behavior.

Learning Objectives

1. Define shaping.

2. Identify the 2 behavioral principles involved in shaping.

3. Identify the 5 dimensions of behavior that can be shaped.

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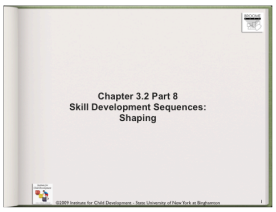
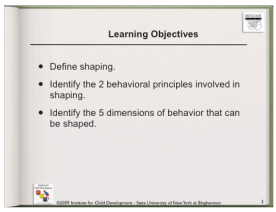
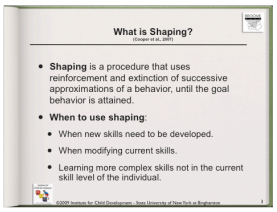
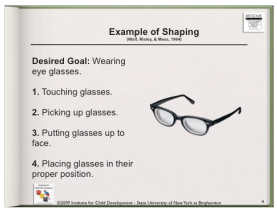
Part 8: Shaping

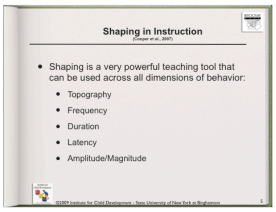
Slides

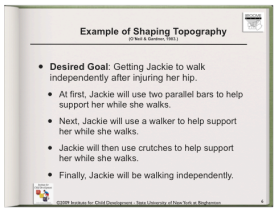


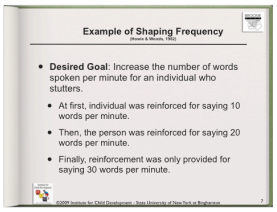


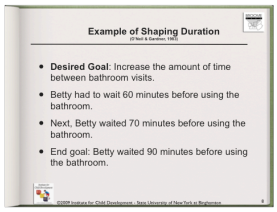


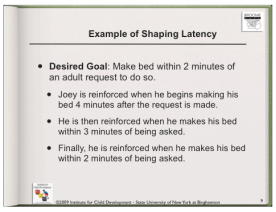


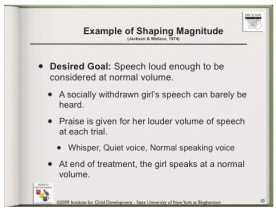












Module 3: Skill Development and Learning for Life
Chapter 3.2: Basic Components of Effective Skill Development

Part 8: Shaping

Scripts

Slide One:
This is module three chapter 3.2, part eight: Shaping.

Slide Two:
The learning components for this part of the chapter include: defining shaping, identifying the two behavioral principles involved in shaping, and identifying the five dimensions of behavior that can be shaped.

Slide Three:
Shaping is a procedure that uses reinforcement and extinction of successive approximations or gradual improvements in behavior to develop a target behavior that is not already present in the individual's skill set. Successive approximations are another way to say that the behavior is reinforced as it begins to look more and more like the ending goal target behavior. A successive approximation is reinforced until the behavior occurs consistently, then a closer approximation of the behavior is reinforced and the previous approximation is no longer reinforced, this continues until the goal behavior is attained. Shaping should be used when developing new skills, modifying current skills, or teaching more complex skills.

Slide Four:
For example, if staff want to teach an individual to wear eyeglasses, the successive approximations could be touching the eyeglasses, picking up the eyeglasses, putting the eyeglasses up to their face and finally placing the eyeglasses correctly on their face. The individual at first would be reinforced for touching the eyeglasses, then they would only be reinforced when they picked up the eyeglasses, this would continue until the individual has completed all the approximations and has attained the skill of putting on the glasses.

Slide Five:
Shaping is a very powerful teaching tool that can be used across all five dimensions of behavior: You will recall that these were discussed earlier, but we will review them here as well. The first dimension is topography, which is the physical form of the behavior, or what the behavior looks like. The second is frequency, which is the number of times a behavior occurs in a given time frame. The third is duration, which is the total time that the behavior occurs. The fourth is latency, or the time between when the stimulus is presented and behavior occurs. The last dimension is magnitude, or the amount of force or strength of the behavior.

Slide Six:
This is an example of shaping the topography of a behavior. Remember that the topography is what the behavior looks like. The end goal was to have Jackie walk independently, starting off with a simple

behavior walking while holding on to two parallel bars was shaped into a more complex behavior of walking using a walker. This was then shaped into walking using crutches, and finally shaped into walking independently.

Slide Seven:
In this example, the end goal is to increase the amount of words said per minute for someone who stutters. This is an example of shaping the frequency of a behavior; the amount of words said per minute was shaped from 10 words per minute to 20 words and then 30 words per minute.

Slide Eight:
Betty was going to the bathroom more than once an hour because she worried if she did not go she would have an accident. The dimension of behavior being shaped in this example is duration because the end goal is to have Betty wait longer to use the bathroom over time. Originally Betty was reinforced when she waited an hour in between bathroom visits, followed by being reinforced for waiting 70 minutes, and the finally reinforcement for waiting 90 minutes between bathroom visits.

Slide Nine:
The desired end goal is to decrease the amount of time from the time Joey is asked to make his bed to the time when he starts making his bed. Originally, Joey would be asked to make his bed and he would ignore the request for five minutes before making his bed. In this example, the shaping procedure would focus on decreasing the latency until a behavior occurs. Remember that latency is the time between when the stimulus is presented and behavior occurs. During the first approximation Joey was reinforced when he made his bed within four minutes of being asked. He was then reinforced when he started to make his bed within three minutes of being asked. Finally he was reinforced when he started making his bed within two minutes of being asked.

Slide Ten:
Finally, you see an example of shaping magnitude. Staff want to increase the volume of a socially withdrawn girl's speech, so the instructors could reinforce successive approximations, which in this case would be louder volume when the girl speaks until the girl is speaking at a normal volume. They might start by reinforcing her whispering and then continue to reinforce only when she begins to increase her volume enough so that she is speaking at a normally audible, or easy to hear, level.

Module 3: Skill Development and Learning for Life
Chapter 3.2: Basic Components of Effective Skill Development

Part 8: Shaping

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3: Skill Development and Learning for Life
Chapter 3.2: Basic Components of Effective Skill Development

Part 9: Task Analysis and Chaining

Summary

This part of the chapter presents task analysis and chaining methods. These methods involve analyzing the individual components of complex actions. An explanation of how to conduct each technique is provided with examples to clarify their use.

Learning Objectives

1. Define task analysis.

2. Define behavior chain.

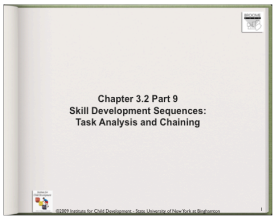
3. Identify the 3 types of behavior chains.

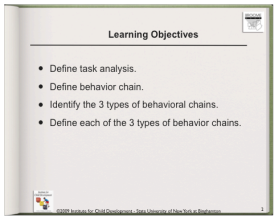
4. Define each of the 3 types of behavior chains.

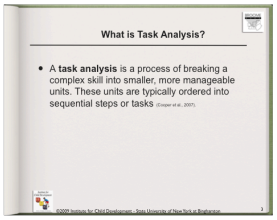
Module 3: Skill Development and Learning for Life
Chapter 3.2: Basic Components of Effective Skill Development

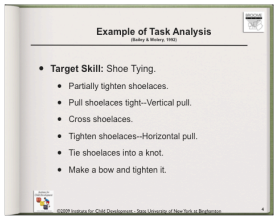
Part 9: Task Analysis and Chaining

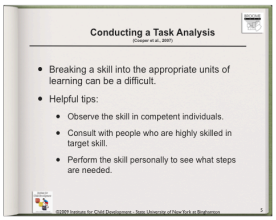
Slides

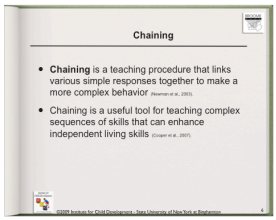


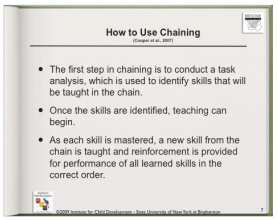


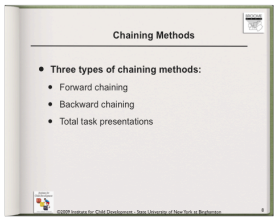


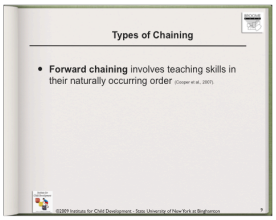


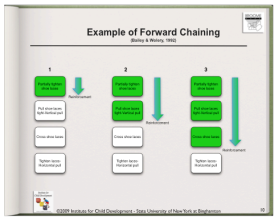


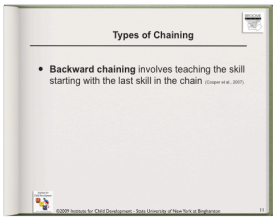


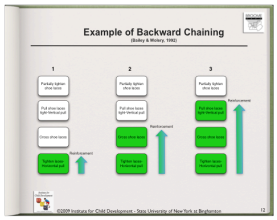


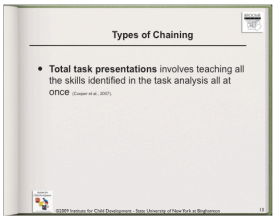


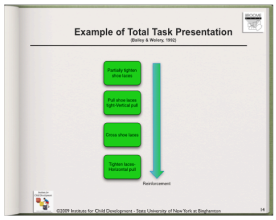












Module 3: Skill Development and Learning for Life
Chapter 3.2: Basic Components of Effective Skill Development

Part 9: Task Analysis and Chaining

Scripts

Slide One:
This is module three chapter 3.2, part nine: Task Analysis and Chaining.

Slide Two:
After watching this chapter video you will be able to: define task analysis, define behavior chain, and identify and define the three types of behavior chains.

Slide Three:
A task analysis is the process of breaking down a complex behavior into smaller, more manageable steps. A task analysis can be created by engaging in the behavior that is going to be taught and writing down the necessary steps to complete the behavior.

Slide Four:
For example, if staff wanted to teach shoe tying, a task analysis of shoe tying could be: partially tightening the shoelaces, pull the shoelaces tight with a vertical pull, cross shoelaces, tighten shoelaces with a horizontal pull, tie shoelaces into a knot, and make a bow with the shoelaces and then pull the bow tight.

Slide Five:
Conducting a task analysis and breaking the skill into appropriate steps can be difficult. It is often helpful to: observe a person engage in the behavior, consult with people who are highly skilled in the target skill, or engage in the behavior yourself to see what steps are necessary.

Slide Six:
Chaining is a teaching procedure that links various simple responses together to teach a more complex behavior. Chaining is a useful procedure that can be used to each individual's complex sequences of skills that will enhance independent living.

Slide Seven:
The first step in a chain is to conduct a task analysis to identify the steps in the chain that will be taught. Once the steps are identified, the teaching procedure can begin. As each step of the chain is mastered, a new step is added on to the chain. Reinforcement is provided when the individual performs all of the steps learned in the correct order.

Slide Eight:
There are three types of chaining: forward chaining, backward chaining and total task presentation. These three types of chaining will be discussed in the following slides.

Slide Nine:
Forward chaining involves teaching the steps involved in the behavior in the order they occur in.

Slide Ten:
When using forward chaining to teach shoe tying the first step would be partially tightening the shoelaces. As you can see in the diagram, the individual at first gets reinforced for completing the first step and after they are successful with the first step, they are reinforced for successfully completing the first and second step. This process is continued on until the individual is reinforced for completing all the steps in the chain.

Slide Eleven:
Backward chaining involves teaching the steps involved in the behavior, starting with the last step of the chain.

Slide Twelve:
When using backward chaining to teach shoe tying the first skill taught, (which is the last step in the sequence), would be tightening the shoelaces with a horizontal pull. As you can see in the diagram, the individual at first gets reinforced for completing the first step and after they are successful with the first step, they are reinforced for successfully completing the first and second step. This process is continued on until the individual is reinforced for completing all the steps in the chain.

Slide Thirteen:
Total task presentation involves teaching all the steps identified in the task analysis at the same time.

Slide Fourteen:
When using total task presentation to teach shoe tying the individual would only be reinforced after completing all the steps identified in the task analysis. As you can see in the diagram, the individual only gets reinforced after completing all the steps listed.

Module 3: Skill Development and Learning for Life
Chapter 3.2: Basic Components of Effective Skill Development

Part 9: Task Analysis and Chaining

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Module 3: Skill Development and Learning for Life
Chapter 3.2: Basic Components of Effective Skill Development

Part 10: Generalization and Maintenance

Summary

This section of the chapter provides tools that can be used to help individuals retain the skills they have learned in order to use them in their daily life. Information on several different ways to promote skill utilization across time and settings are introduced.

Learning Objectives

1. Define maintenance.

2. Define generalization.

2. Define generalization across settings.

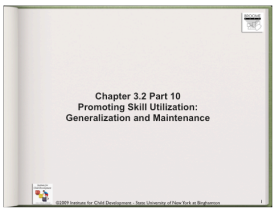
3. Define generalization across skills.

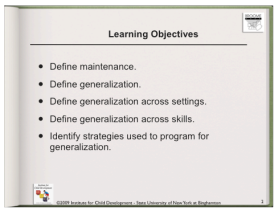
4. Identify strategies used to program for generalization.

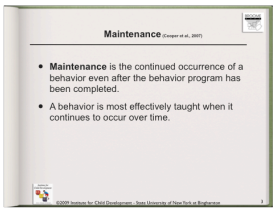
Module 3: Skill Development and Learning for Life
Chapter 3.2: Basic Components of Effective Skill Development

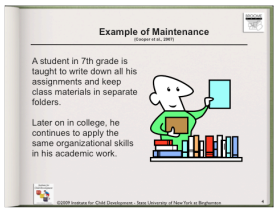
Part 10: Generalization and Maintenance

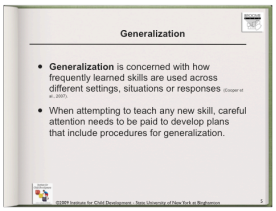
Slides

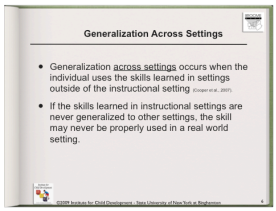


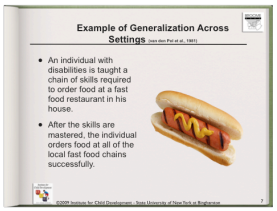


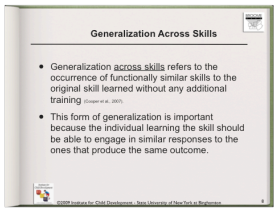


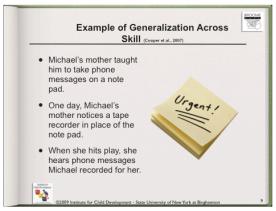


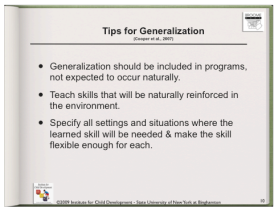












Module 3: Skill Development and Learning for Life
Chapter 3.2: Basic Components of Effective Skill Development

Part 10: Generalization and Maintenance

Scripts

Slide One:
This is module three chapter 3.2, part ten: Generalization and Maintenance.

Slide Two:
The learning objectives for this component include: defining generalization, maintenance, generalization across settings, and generalization across skills. You will also learn to identify strategies used to promote generalization.

Slide Three:
Maintenance is the continued occurrence of a behavior across time. A behavior that continues to occur even after the behavior program has been completed is successfully learned.

Slide Four:
For example a student learned to write down his assignments and keep his class materials separated in folders in seventh grade. In college this same student continues to apply the organizational skills to his college assignments and materials.

Slide Five:
Generalization is the occurrence of a skill across different settings, situations or responses. When planning to teach a new skill, plans to promote generalization should be created in advance.

Slide Six:
Generalization across settings occurs when the individual engages in the target behavior in different settings or situations other than the training setting. In order for a skill to be most effective it must occur outside of the training setting.

Slide Seven:
For example, an individual with disabilities is taught (in his house) the chain of skills required to order food at a fast food restaurant. Once the skills required are mastered at home, if the skills continue to occur at the local fast food store, then the skills were generalized across settings, and the behavior plan was effective.

Slide Eight:
Generalization across behaviors or skills refers to the occurrence of functionally similar skills or behaviors in addition to the original skill learned, without any further training. This form of generalization is important because the individual learning the skill should be able to engage in similar responses to the one that produce the same outcome.

Slide Nine:
An example of generalization across skills is when Michael learns to takes messages on a note pad from people calling for his mother, and one day Michael's mother notices a tape recorder left where the note pad used to be, when she plays the tape recorder she realizes that Michael left her a message on the tape recorder instead of the notepad. In this case, Michael's skill (leaving a message) generalized from writing the message down on paper to recording the message on a tape recorder.

Slide Ten:
Generalization should be a part of every skill development plan, do not assume that generalization will occur, plan for it in advance. A good way to increase generalization is to teach skills that will be naturally reinforced in the actual environment. By doing this the individual is more likely to engage in the skill outside of the training environment to access reinforcement. Another way to increase generalization is to plan in advance all the settings and situations where the learned behavior is expected to occur, make sure that the skill is taught flexibly enough so that it can easily occur across all settings and situations.

Module 3: Skill Development and Learning for Life
Chapter 3.2: Basic Components of Effective Skill Development

Part 10: Generalization and Maintenance

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Module 3: Skill Development and Learning for Life
Chapter 3.3: Additional Supports for Skill Development

Part 1: Structural and Visual Supports

Summary

This chapter section gives a general overview of structural and visual supports for individuals with autism. Topics covered in this video include modifying the general layout of the environment, creating visual boundaries, enhancing organization, and minimizing distractions. Multiple examples and tips are provided to aid in implementation.

Learning Objectives

1. Identify the 4 areas of a supportive environment.

2. Identify methods for creating visual boundaries.

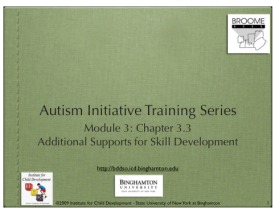
3. Identify methods of organization.

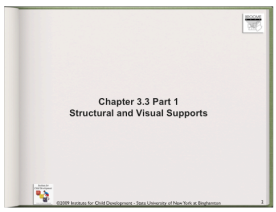
4. Identify methods for minimizing distractions.

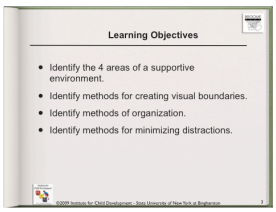
Module 3: Skill Development and Learning for Life
Chapter 3.3: Additional Supports for Skill Development

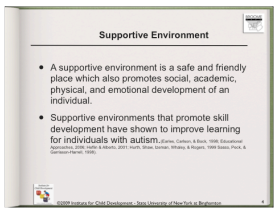
Part 1: Structural and Visual Supports

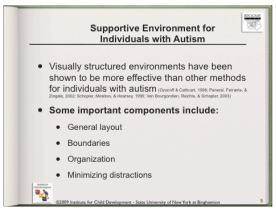
Slides

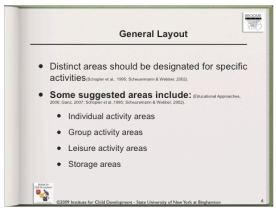


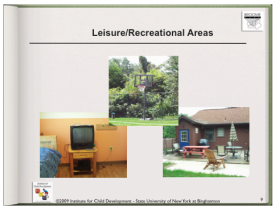


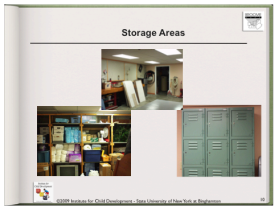


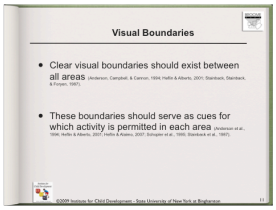


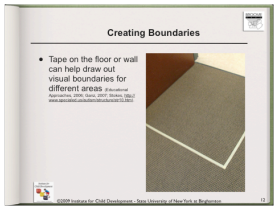


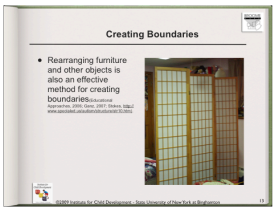


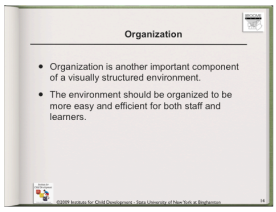


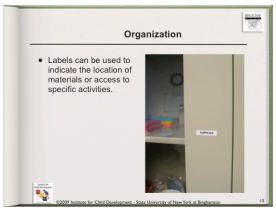


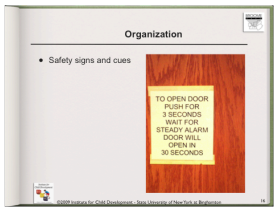


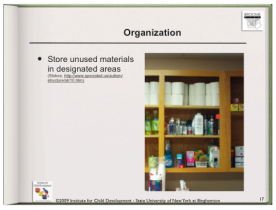











Organization
Store unused materials in designated areas
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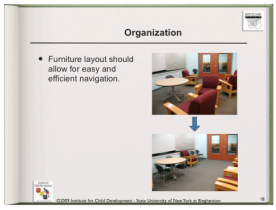
Organization
Furniture layout should allow for easy and efficient navigation.
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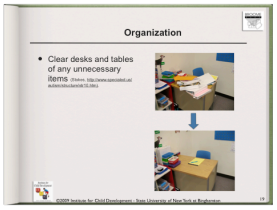
Organization
Clear desks and tables of any unnecessary items
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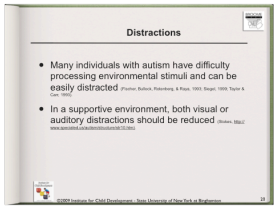
Distractions
Many individuals with autism have difficulty processing environmental stimuli and can be easily distracted
In a supportive environment, both visual or auditory distractions should be reduced
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Minimizing Visual Distractions
Minimize visual clutter
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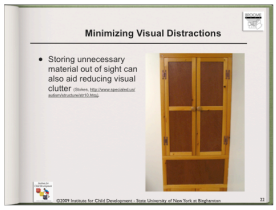
Minimizing Visual Distractions
Storing unnecessary material out of sight can also aid reducing visual clutter
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Minimizing Visual Distractions
Blinds or curtains can be used to control the amount of light coming through the windows
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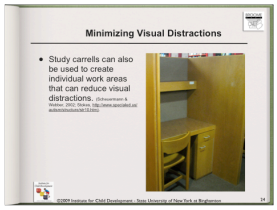
Minimizing Visual Distractions
Study carrells can also be used to create individual work areas that can reduce visual distractions.
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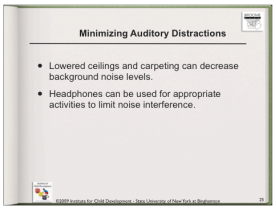
Minimizing Auditory Distractions
Lowered ceilings and carpeting can decrease background noise levels.
Headphones can be used for appropriate activities to limit noise interference.
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Module 3: Skill Development and Learning for Life
Chapter 3.3: Additional Supports for Skill Development

Part 1: Structural and Visual Supports

Scripts

Slide One:
This is module three chapter 3.3, part one: Structural and Visual Supports.

Slide Two:
Part One Structural and Visual Supports.

Slide Three:
After completing this section of the chapter, you will be able to: identify the four areas of a supportive environment, identify methods for creating visual boundaries, identify methods of organization and identify methods for minimizing distractions.

Slide Four:
To begin, let's define what we mean when we use the term supportive environment. A supportive environment is a safe and friendly place, which also promotes social, academic, physical, and emotional development for an individual. Research has shown that supportive environments that promote skill development can improve learning for individuals with autism, so understanding how to create this type of environment is very important for therapeutic staff who work with these individuals.

Slide Five:
There are various methods for designing a supportive environment. Of these, visually structured environments have been shown to be more effective than other methods for individuals with autism. Some important components to consider when creating a visually structured environment include: general layout of the rooms, boundaries set between different areas, organization of materials and supplies, and minimizing distractions when possible. When considering these components, it is also important to take into account individual strengths and weaknesses, age, gender, and personal preferences when using these methods to structure the environment in each residence.

Slide Six:
Now we will review each of the components and provide examples for each. General layout refers to how distinct areas are created in the environment and what activities take place in those areas. It is important to remember that distinct areas should be designated for specific activities and used only for those activities. Some of the commonly used and suggested areas to achieve this type of structure include: individual activity areas, group activity areas, leisure activity areas and storage areas.

Slide Seven:
An individual activity area might be an area in the home where an individual can have privacy or engage in activities that are based on their own preferences. These pictures show some common examples of

individual activity areas such as a desk for studying, a personal bedroom for reading or playing video games, and a computer desk for learning to type.

Slide Eight:
Group activity areas include shared space or any area where a group would do something together. Some examples of this type of area might be a dining room, kitchen, or living room.

Slide Nine:
Leisure and recreational areas provide a place where individuals can relax or engage in preferred activities. These activities could be either group or individually based. The examples presented here highlight very general leisure and recreational activities, such as watching t.v., playing sports, or enjoying a nice barbecue outside. However, different individuals will find different activities relaxing and their preferences should play an important role in deciding how best to structure these areas for maximum enjoyment.

Slide Ten:
Storage areas can be something as simple as a few shelves in a closet to having a whole room dedicated just for storage. These areas are very useful in helping both staff and individuals be able to easily locate items they are looking for as well as store currently unneeded items. For storing individual personal belongings, secured lockers or storage bins can be used.

Slide Eleven:
Once the distinct areas have been determined, it is important that individuals can distinguish between these areas. To do this, staff should create clear visual boundaries between all areas. Also, these boundaries should serve as cues for the activity permitted in each area.

Slide Twelve:
Tape can be used to create visual boundaries for various purposes. In this example, tape is used to make a visual boundary indicating the unsafe area in a doorway where a person would get hit if they stood there. Although tape on the floor or wall can help draw out visual boundaries for different areas, the individual and group needs of the individuals in the home should be considered when creating these visual cues.

Slide Thirteen:
Rearranging furniture or other objects is also an effective method for creating boundaries. This includes objects such as bookcases, rugs, office panels, tables, and room dividers. The example in this picture shows how a room divider can be used to create a visual boundary.

Slide Fourteen:
Organization is another important component of a visually structured environment. The environment should be organized to be easier and more efficient for both staff and learners to help create functional learning opportunities throughout the home. Let's look at some examples...

Slide Fifteen:
Here you can see that labels can be used to indicate the location of materials or access to specific

activities. On this cabinet a small text label is used to indicate that supplies are stored here. Labels may be more general or specific depending on the needs of the individuals.

Slide Sixteen:
They can also be used for other functions such as safety signs and cues for what behavior to engage in. For individuals who cannot read or have difficulty with language, these signs can also be pictures or other representations of the same idea.

Slide Seventeen:
Unused materials should always be stored in designated storage areas. As discussed earlier, using storage areas can help enhance efficiency by decreasing the clutter in the home and providing specific locations where certain items are always stored.

Slide Eighteen:
Another way to organize the environment is to move furniture. Most importantly, furniture layout in the room should allow for easy and efficient navigation. The pictures presented below are examples of before and after images of how this might be done. In the top picture all the furniture is in the middle of the room, but in the lower image it has all been grouped and moved to the walls in order to create a space for walking and transitioning between furniture.

Slide Nineteen:
Also, clear desks and tables of any unnecessary items. These should be stored in drawers or in labeled cabinets and storage areas presented earlier in this portion of the chapter. Pictured here you can see that the top image shows the wrong way to organize a desk, where there is no clear workspace. However, in the bottom picture all materials are organized neatly on the desk or in drawers to permit a writing or workspace on the desk.

Slide Twenty:
Minimizing distractions is a very important part of building a supportive environment, particularly for adolescents and adults with autism. Many individuals with autism have difficulty processing environmental stimuli and can be easily distracted. In a supportive environment, both visual and auditory distractions should be reduced wherever possible.

Slide Twenty-one:
As previously mentioned, storing unnecessary material out of sight aids in organization, but also reduces visual clutter. The cabinets in this picture present a good example of storing materials out of sight. You will notice that there are no decorations or intense colors used on the cabinet itself, also making this an effective object in the environment because it does not create a visual distraction itself.

Slide Twenty-two:
One type of distraction can be in the form of visual clutter, such as room decorations. Excessive room decorations can make it difficult for some individuals to pay attention and should be kept at a minimum in spaces where learning is meant to occur.

Slide Twenty-three:
Another way to reduce visual distraction is to use blinds or curtains to control the amount of light coming through the windows. These can also be useful in minimizing distractions from activities that are happening outside or objects that might be visible through the window.

Slide Twenty-four:
Study carrels can also be used to create individual work areas that can reduce visual distractions. This can be useful for completing homework assignments and other school related activities.

Slide Twenty-five:
We have already discussed many examples of visual distractions and possible solutions to them, but auditory distractions present a different challenge. This is because some noise will be expected in learning and living situations. However, there may be some solutions that can be effective if implemented in room design and activity planning for each room. Some helpful ways to reduce auditory distractions are: lowered ceilings and carpeting to decrease background noise levels. Also, headphones can be used for appropriate activities to limit noise interference from other individuals or learners. Headphones are also great for allowing individuals to engage in activities such as listening to music without disrupting others around them. These are all helpful ways to assist in minimizing distractions, improving organization, and increasing efficiency in the home or learning setting. In part two of this chapter, we will outline how to use other forms of visual supports for both individual and group activities.

Module 3: Skill Development and Learning for Life
Chapter 3.3: Additional Supports for Skill Development

Part 1: Structural and Visual Supports

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Module 3: Skill Development and Learning for Life
Chapter 3.3: Additional Supports for Skill Development

Part 2: Schedules and Transitional Supports

Summary

This portion of the chapter provides a general overview of schedules and transitions. Topics include prerequisite skills for using schedules, different types of schedules, and how to use and teach the schedules to learners. Finally, some helpful tips for what to do and not to do with schedules are provided.

Learning Objectives

1. Define schedules.

2. Identify 3 prerequisite skills required for schedules.

3. Define group schedules.

4. Identify the 4 types of group schedules.

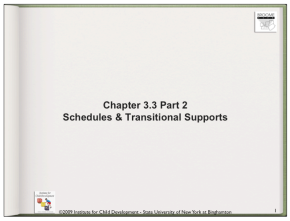
5. Define individual schedules.

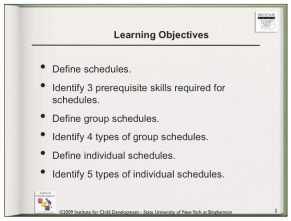
6. Identify the 5 types of individual schedules.

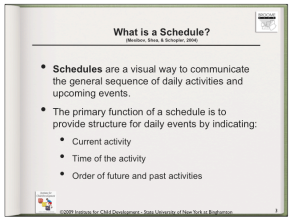
Module 3: Skill Development and Learning for Life
Chapter 3.3: Additional Supports for Skill Development

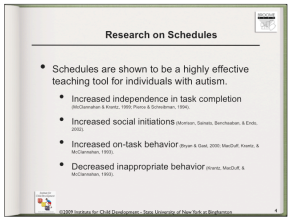
Part 2: Schedules and Transitional Supports

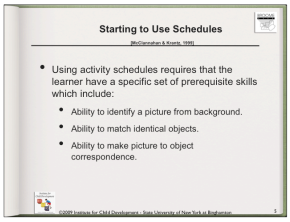
Slides

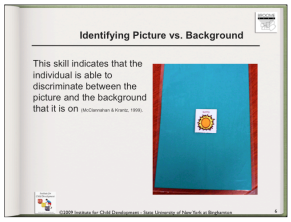


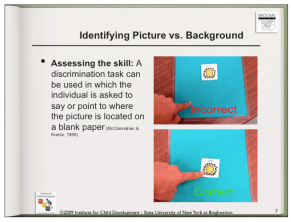


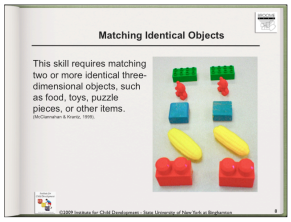


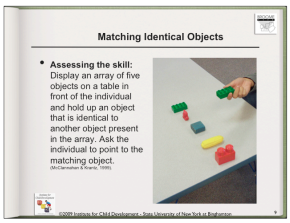


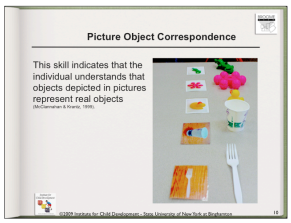


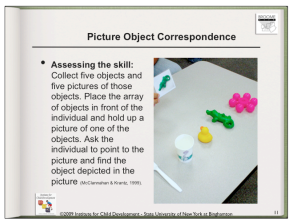


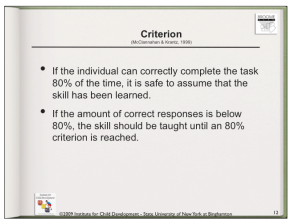


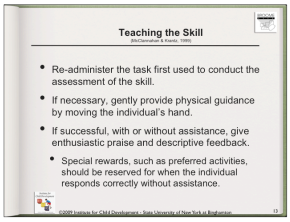


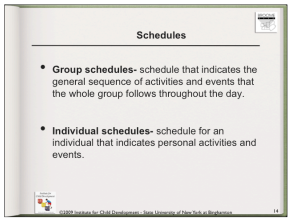


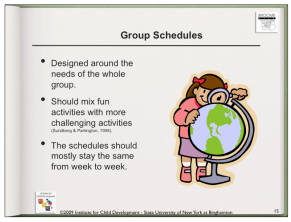


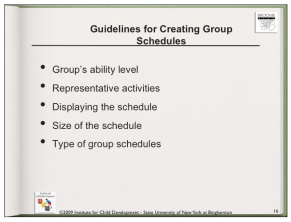


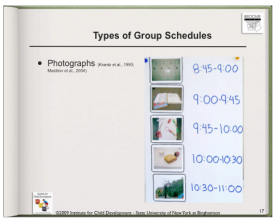











Types of Group Schedules
Photographs (Krantz et al., 1993; Meidton et al., 2004)
9:45-9:00
9:00-9:45
9:45-10:00
10:00-10:30
10:30-11:00
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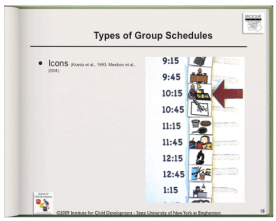
Types of Group Schedules
Icons (Krantz et al., 1993; Meidton et al., 2004)
9:15
9:45
10:15
10:45
11:15
11:45
12:15
12:45
1:15
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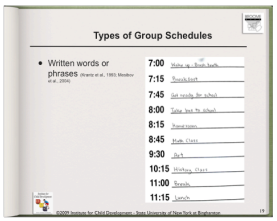
Types of Group Schedules
Written words or phrases (Krantz et al., 1993; Meidton et al., 2004)
7:00 Wake up / Brush teeth
7:15 Breakfast
7:45 Get ready for school
8:00 Take bus to school
8:15 Homeroom
8:45 Math Class
9:30 Gym
10:15 Working Class
11:00 Break
11:15 Lunch
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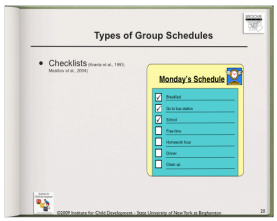
Types of Group Schedules
Checklists (Krantz et al., 1993; Meidton et al., 2004)
Monday's Schedule
Breakfast
Go to bus station
School
Free time
Homework hour
Dinner
Clean up
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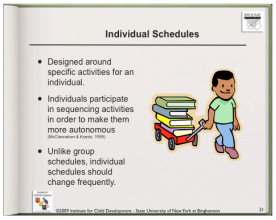
Individual Schedules
Designed around specific activities for an individual.
Individuals participate in sequencing activities in order to make them more autonomous (McClannahan & Krantz, 1999)
Unlike group schedules, individual schedules should change frequently.
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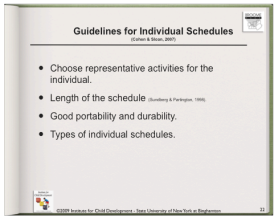
Guidelines for Individual Schedules
(Cohen & Sloan, 2007)
Choose representative activities for the individual.
Length of the schedule (Sundberg & Partington, 1998)
Good portability and durability.
Types of individual schedules.
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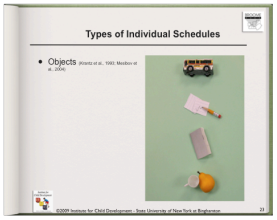
Types of Individual Schedules
Objects (Krantz et al., 1993; Meidton et al., 2004)
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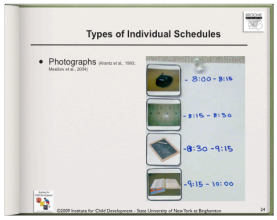
Types of Individual Schedules
Photographs (Krantz et al., 1993; Meidton et al., 2004)
8:00 - 8:15
8:15 - 8:30
8:30 - 9:15
9:15 - 10:00
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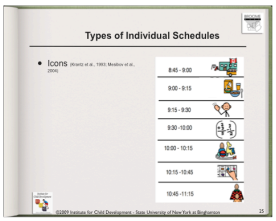
Types of Individual Schedules
Icons (Krantz et al., 1993; Meidton et al., 2004)
8:45 - 9:00
9:00 - 9:15
9:15 - 9:30
9:30 - 10:00
10:00 - 10:15
10:15 - 10:45
10:45 - 11:15
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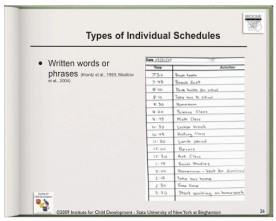
Types of Individual Schedules
Written words or phrases (Krantz et al., 1993; Meidton et al., 2004)
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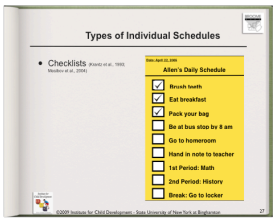
Types of Individual Schedules
Checklists (Krantz et al., 1993; Meidton et al., 2004)
Date: April 22, 2009
Allen's Daily Schedule
Brush teeth
Eat breakfast
Pack your bag
Be at bus stop by 8 am
Go to homeroom
Hand in note to teacher
1st Period: Math
2nd Period: History
Break: Go to locker
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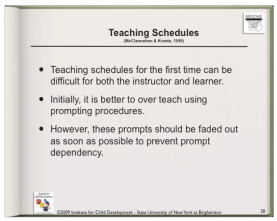
Teaching Schedules
(McClannahan & Krantz, 1999)
Teaching schedules for the first time can be difficult for both the instructor and learner.
Initially, it is better to over teach using prompting procedures.
However, these prompts should be faded out as soon as possible to prevent prompt dependency.
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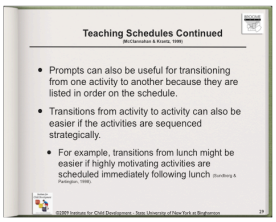
Teaching Schedules Continued
(McClannahan & Krantz, 1999)
Prompts can also be useful for transitioning from one activity to another because they are listed in order on the schedule.
Transitions from activity to activity can also be easier if the activities are sequenced strategically.
For example, transitions from lunch might be easier if highly motivating activities are scheduled immediately following lunch (Sundberg & Partington, 1998).
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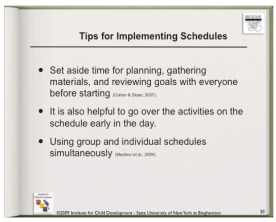
Tips for Implementing Schedules
Set aside time for planning, gathering materials, and reviewing goals with everyone before starting (Cohen & Sloan, 2007).
It is also helpful to go over the activities on the schedule early in the day.
Using group and individual schedules simultaneously (Meidton et al., 2004).
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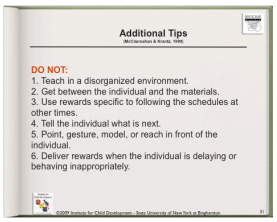
Additional Tips
(McClannahan & Krantz, 1999)
DO NOT:
1. Teach in a disorganized environment.
2. Get between the individual and the materials.
3. Use rewards specific to following the schedules at other times.
4. Tell the individual what is next.
5. Point, gesture, model, or reach in front of the individual.
6. Deliver rewards when the individual is delaying or behaving inappropriately.
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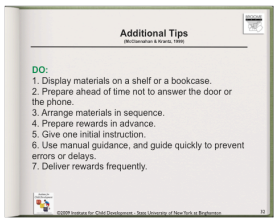
Additional Tips
(McClannahan & Krantz, 1999)
DO:
1. Display materials on a shelf or a bookcase.
2. Prepare ahead of time not to answer the door or the phone.
3. Arrange materials in sequence.
4. Prepare rewards in advance.
5. Give one initial instruction.
6. Use manual guidance, and guide quickly to prevent errors or delays.
7. Deliver rewards frequently.
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Module 3: Skill Development and Learning for Life
Chapter 3.3: Additional Supports for Skill Development

Part 2: Schedules and Transitional Supports

Scripts

Slide One:
This is module three chapter 3.3, part two: Schedule and Transitional Supports.

Slide Two:
After completing this section of the chapter, you will be able to: define schedules, identify three prerequisite skills for schedules, define group schedules, identify four types of group schedules, define individual schedules, and identify five types of individual schedules.

Slide Three:
So what is a schedule? Schedules are a visual way to communicate the general sequence of daily activities and upcoming events. The primary function of a schedule is to provide structure for daily events by indicating: what the current activity is, the time of an activity, and the order or sequence of future and past activities.

Slide Four:
According to research, schedules are shown to be a highly effective teaching tool for individuals with autism, more specifically, they have shown to be effective for: increasing independence in task completion, increasing social initiations and on-task behavior and decreasing inappropriate behavior.

Slide Five:
However, using activity schedules requires the learner to have a specific set of prerequisite skills. This means that instructors must assess whether the person has: the ability to identify a picture from its background, the ability to match identical objects to each other and the ability to make picture to object correspondence. Before using schedules, an assessment should be conducted to see if the individual already possesses these skills. Before continuing with examples of schedules, we will review each of these skills with explanations on how to assess them and teach them, when necessary.

Slide Six:
Identifying picture versus background is a skill that indicates if the individual is able to discriminate between the picture and the background page that it is on. In this example, the sun is the picture and the background is the blue piece of paper.

Slide Seven:
To assess this skill, a discrimination task can be used in which the individual is asked to say or point to where the picture is located on a blank paper. In this example, the individual was asked to point to the picture of the sun. This skill should be assessed more than one time since the individual may have gotten the answer correct by chance.

Slide Eight:
Matching identical objects requires matching two or more identical three-dimensional objects, such as food, toys, puzzle pieces, or other identical items. This is important because an individual will be using their schedule to match items or activities to events in the real world.

Slide Nine:
To assess this skill, display an array of five objects on a table in front of the individual and hold up an object that is identical to another object present in the array. While holding the object, ask the individual to point to the matching object. Make sure to conduct this task with all the objects in the array. This skill should be assessed more than one time with each object since the individual may have gotten the answer correct by chance.

Slide Ten:
Picture object correspondence is a skill that indicates that an individual understands that objects depicted in pictures represent real objects. This is the next, higher order step in matching, since we already indicated the need for an individual to match images with real events.

Slide Eleven:
For assessing this skill, you will need to collect five objects and five pictures of those objects. Place the array of objects in front of the individual and hold up a picture of one of the objects. Ask the individual to point to the picture and find the object depicted in the picture. As with matching identical objects task, make sure to conduct this task with all the objects in the array. This skill should be assessed more than one time with each object since the individual may have gotten the answer correct by chance.

Slide Twelve:
Criterion is the standard amount of correct answers you would require before confirming that a skill has been learned and can be used independently by the individual. If the individual can correctly complete the given task 80% of the time, it is safe to assume that the skill has been learned. So, if someone got eight correct answers out of ten attempts, they would meet criterion. If the amount of correct responses is below 80%, the skill should be taught until an 80% criterion is reached.

Slide Thirteen:
To teach the skill: re-administer the task first used to conduct the assessment of the skill, if necessary, gently provide physical guidance by moving the individual's hand, if successful, with or without assistance, give enthusiastic praise and descriptive feedback. However, special rewards such as preferred activities should be reserved for when the individual responds correctly without assistance. Now, we will return to our discussion of schedules.

Slide Fourteen:
Schedules can be for groups or a single individual. A group schedule indicates the general sequence of activities and events that the whole group follows throughout the day. An individual schedule is for an individual that indicates personal activities and events. Whenever possible, it is better to use both schedules simultaneously. This assists individuals in managing their time for themselves and the larger

group in which they are a member, which most adults do throughout their day in work and the community.

Slide Fifteen:
First, let's review group schedules. Group schedules should be designed around the needs of the whole group, taking into account the ability level, interests, and needs of everyone. Staff should also attempt to mix fun activities with more challenging ones throughout the day. This can help to keep the day interesting and make transitions easier. Finally, for general daily activities, the schedules should stay mostly the same from week to week. This provides structure and routine to the events and transitions of the residence.

Slide Sixteen:
Importantly, there are many things to consider when creating a group schedule. First, the group ability level should determine the complexity, size, number of activities, and types of symbols that are used. Second, choice of activity should best suit the needs of everyone as they go through their day. This means that the activities on the group schedule are representative of the basic routine for all members of the group. Third, the schedule must be placed in a visible location. Staff should try to display the schedule where it can be viewed and easily referred to by everyone. Fourth, the schedule should be made large enough to get everyone's attention. Finally, there are several different types of schedules. The different types of schedules have distinct qualities that make them better in certain situations than the others. The type of schedule that best fits the ability of the group should be used. Some examples of these schedules will follow.

Slide Seventeen:
A photographic schedule uses real photographs to represent the activities. Using this type of schedule has the advantage of being able to depict an actual picture of the event scheduled for that time period.

Slide Eighteen:
An icon schedule uses icons or images to represent an activity. Icon schedules are useful if the activities that need to be portrayed because they are difficult or inconvenient to capture in a photograph.

Slide Nineteen:
Written schedules simply have the activities written out in a word or a phrase. This type of schedule is very easy to create and use. However, because the tasks are written out, this type of schedule may not be best for individuals that have difficulty reading.

Slide Twenty:
Checklist schedules are schedules that include check boxes with each task. This type of schedule is great for being able to keep track of which task has been completed and what tasks still need to be completed.

Slide Twenty-one:
Now, individual schedules are designed around specific activities for a single individual. Because the focus is only on one person, individual schedules usually consist of a larger variety of activities. Additionally, individuals should be allowed to participate in sequencing activities in order to make them

more autonomous or independent. This can involve simply asking them which order they would like to do their work in or when they would like to take breaks. Finally, unlike group schedules, individual schedules should change frequently over time to reflect changes in independent routines and increase flexibility for the individual.

Slide Twenty-two:
Similar to the group schedule, choose representations of activities that best suit the needs of the individual. Because only one individual is being considered, the activities can be much more specific. Length of schedule should be adjusted to how much an individual can handle. This includes the amount of activities scheduled in a day as well as how long each activity takes to complete. Portability and durability of the individual schedule is also important as they are usually carried around all day by the individual or a staff member. The schedule should be easy to carry and durable enough not break apart during travel. Also, as with group schedules, there are several different types of individual schedules. Let's review them more specifically.

Slide Twenty-three:
Object schedules are schedules that use real objects, mostly miniature replicas of the real item, to depict an event or task. This type of schedule is good for providing a strong visual cue for an activity. However, it can often be difficult to find the appropriate miniature object to match the activity.

Slide Twenty-four:
Aside from the object schedule, the individual photographic, iconic, written, and checklist schedules are much the same as group schedules. However, individual schedules provide more specific activities to suit the needs of that individual. As pictured above, the individual might have a specific picture of the their backpack in order to know when it is time to pack up his belongings for day programs, school, or vocational placement.

Slide Twenty-five:
Here is an example of an individual icon schedule. In comparison to the group schedule shown before, you will notice that there are more specific tasks, such as matching tasks at 10:15 and checkers or board games at 10:45.

Slide Twenty-six:
Here is an example of an individual written schedule, with specific breaks and instructions written in for this person.

Slide Twenty-seven:
And finally, here is an example of an individual checklist schedule.

Slide Twenty-eight:
Teaching a schedule for the first time can be a difficult process for both the instructor and learner. When starting to teach schedules, it is better to over teach using prompting procedures. This can help reduce the amount of energy spent trying to learn to use the schedule through a process of trial and error. However, these prompts should be faded out as soon as possible to prevent prompt dependency.

Slide Twenty-nine:
Prompts can also be useful for transitioning from one activity to another because they are listed in order on the schedule. Verbal cues such as "times up" and "check your schedule" can be used to prompt the upcoming activity. Transitions from activity to activity can also be easier if the activities are sequenced strategically. For example, transitions from lunch might be easier if highly motivating activities are scheduled immediately following lunch.

Slide Thirty:
Listed below are some helpful tips for using schedules. First, set aside time for planning, gathering materials, and reviewing goals with everyone before starting. This makes the purpose of the method for using the schedules clear to everyone on the treatment team. Second, go over the activities on the schedule early in the day with everyone who will be using the schedule, including the individual and group members. Finally, as mentioned before, try to use both group and individual schedules simultaneously when possible.

Slide Thirty-one:
When using schedules, there are some things you will want to avoid: teaching in a disorganized environment, getting between the individual and the materials, using rewards specific to following the schedules at other times, telling the individual what is next, pointing, gesturing, modeling, or reaching in front of the individual and delivering rewards when the individual is delaying or behaving inappropriately.

Slide Thirty-two:
Some things to do when using schedules include: making sure to display materials on a shelf or a bookcase, preparing ahead of time not to answer the door or the phone, arranging materials in sequence for easier use, preparing the rewards in advance, giving one initial instruction, using manual guidance and guide quickly to prevent errors or delays, making sure that rewards are delivered frequently when the individual or group correctly uses their schedule and makes the transition.

Module 3: Skill Development and Learning for Life
Chapter 3.3: Additional Supports for Skill Development

Part 2: Schedules and Transitional Supports

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