Training Module

Behavior Modifications 1 & 2

Presented by

Kaleidoscope Family Solutions, Inc

The first use of the term behavior modification appears to have been by Edward Thorndike in 1911. His article *Provisional laws acquired behavior or learning* makes frequent use of the term "modifying behavior." [1] Through early research in the 1940s and the 1950s the term was used by Joseph Wolpe's research group^[2]. The experimental tradition in clinical psychology^[3] used it to refer to psychotherapeutic techniques derived from empirical research. It has since come to refer mainly to techniques for increasing adaptive behavior through reinforcement and decreasing maladaptive behavior through punishment (with emphasis on the former). Two related terms are behavior therapy and applied behavior analysis. Emphasizing the empirical roots of behavior modification, some authors^[4] consider it to be broader in scope and to subsume the other two categories of behavior change methods. Since techniques derived from behavioral psychology tend to be the most effective in altering behavior, most practitioners consider behavior modification along with behavior therapy and applied behavior analysis to be founded in behaviorism. While behavior modification encompasses applied behavior analysis and typically uses interventions based on the same behavioral principles, many behavior modifiers who are not applied behavior analysts tend to use packages of interventions and do not conduct functional assessments before intervening.

In recent years, the concept of <u>punishment</u> has had many critics, though these critiques tend not to apply to <u>negative punishment</u> (time-outs) and usually apply to the addition of some aversive event. The use of <u>positive punishment</u> by board-certified behavior analysts is restricted to extreme circumstances when all other forms of treatment have failed and when the behavior to be modified is a danger to the person or to others. In clinical settings positive punishment is usually restricted using a spray bottle filled with water as an aversive event. When mis-used, extreme punishment can lead to affective (emotional) disorders, as well as to the target of the punishment eventually focusing only on avoiding punishment (i.e., "not getting caught") rather than improving behavior.

Pear and Martin indicate that there are seven characteristics to behavior modification, [4] they are:

- There is a strong emphasis on defining problems in terms of behavior that can be measured in some way.
- The treatment techniques are ways of altering an individual's current environment to help that individual function more fully.
- The methods and rationales can be described precisely.
- The techniques are often applied in everyday life.
- The techniques are based largely on principles of learning specifically operant and respondent (or Pavlovian or classical) conditioning.
- There is a strong emphasis on scientific demonstration that a particular technique

- was responsible for a particular behavior change.
- There is a strong emphasis on accountability for everyone involved in a behavior modification program.

Techniques

Therapy and consultation cannot be effective unless the behaviors to be changed are understood within a specific context. The process of understanding behavior in context is called functional behavioral assessment. Therefore, a functional behavioral assessment is needed before performing behavior modification. One of the most simple yet effective methods of functional behavioral assessment is called the "ABC" approach, where observations are made on Antecedents, Behaviors, and Consequences. In other words, "What comes directly before the behavior?", "What does the behavior look like?", and "What comes directly after the behavior?" Once enough observations are made, the data are analyzed and patterns are identified. If there are consistent antecedents and/or consequences, then an intervention should target them in order to increase or decrease the target behavior. This method has formed the core of positive behavior support for children in school from both regular education and special education.

Behavior modifiers like to employ a variety of evidenced-based techniques. These techniques intervene at all levels of context. For example, given specific setting events for a behavior, a behavior modifier may develop a neutralizing routine to eliminate that setting. If a behavior pattern has a specific antecedent of trigger, then an antecedent control strategy can be developed to train new behavior in the presence of the trigger. If a problem behavior readily occurs because it achieves some function, then an alternative behavior can be instructed and trained to occur in the context of the trigger. [8][9] If a behavior is particularly complex it may be task-analyzed and broken into its component parts to be taught through chaining. While all these methods are effective, when the behavior problem gets difficult or when all else fails many turn to contingency management systems. [10] Complex and comprehensive contingency management systems have been developed and represent effective ways to eliminate many problem behaviors (see applied behavior analysis and positive behavior support). Collaborative goal setting with the client enhances treatment effects. [11]

Some areas of effectiveness

Functional behavior assessment forms the core of <u>applied behavior analysis</u> and thus forms the core of behavior modification. Many techniques in this therapy are specific techniques aimed at specific issues. Interventions based on behavior analytic/modification principles have been extremely effective in developing evidence-

based treatments.[12]

In addition to the above, a growing list of researched-based interventions from the behavioral paradigm exists. With children with attention deficit hyperactivity disorder, one study showed that over a several year period, children in the behavior modification group had half the number of felony arrests as children in the medication group. [13] [14]

These findings remain to be replicated but are considered encouraging for the use of behavior modification for children with attention deficit hyperactivity disorder.

Behavior modification programs form the core of many residential treatment facility programs. (In Wikipedia these link under <u>Behavior Modification Facility.</u>) They have shown success in reducing recividism for adolescents with conduct problems. One particular program that is of interest is 'teaching-family homes', which is based on a social learning model that emerged from <u>radical behaviorism.</u> These particular homes use a family style approach to residential treatment, which has been carefully replicated over 700 times.^[15]

One area that has repeatedly shown effectiveness has been the work of <u>behaviorists</u> working in the area of community reinforcement for addictions. ^[16] Another area of research that has been strongly supported has been behavioral activation for depression. ^[17]

One way of giving positive reinforcement in behavior modification is in providing compliments, <u>approval</u>, encouragement, and <u>affirmation</u>; a ratio of five compliments for every one complaint is generally seen as being effective in altering behavior in a desired manner.^[18] and even producing a stable marriage.^[19]

Of notable interest is that the right behavioral intervention can have profound system effects. For example, Forgatch and DeGarmo (2007) found that with mothers who were recently divorced a standard round of parent management training (a program based on social learning principles that teaches rewarding good behavior and punishing bad behavior combined with communication skills) could help elevate the divorced mother out of poverty. ^[20] In addition, parent management training programs sometimes referred to as behavioral parent training programs have shown relative cost effectiveness for their efforts ^[21] for the treatment of conduct disorder. Thus, such intervention can have profound effects on socializing the child in a relatively cost effective fashion and help elevate the parent from poverty. This level of effect is often looked for and valued by those who practice behavioral engineering and results of this type have caused the Association for Behavior Analysis International to take a position that those receiving

treatment have a right to effective treatment <u>ABA:I</u> and a right to effective education. <u>ABA:I</u>

Criticism

Behavior modification is critiqued in person-centered psychotherapeutic approaches such as Rogerian Counseling and Re-evaluation Counseling. [5] The argument is that these methods involve connecting with the human qualities of the person to promote healing and that behaviorism is denigrating to the human spirit. [22] Skinner arqued against this position in Beyond Freedom and Dignity by arguing that unrestricted reinforcement is what led to the "feeling of freedom" and thus removal of aversive events would allow people to "feel freer." [23] Further criticism extends to the presumption that behavior increases only when it is reinforced. This premise is at odds with research conducted by Albeit Bandura at Stanford University. His findings indicate that violent behavior is imitated, without being reinforced, in studies conducted with children watching films showing various individuals 'beating the daylights out of Bobo'. Bandura believes that human personality and learning is the result of the interaction between environment, behavior and psychological process. There is evidence, however, that imitation is a class of behavior that can be learned just like anything else. Children have been shown to imitate behavior that they have never displayed before and are never reinforced for, after being taught to imitate in general. [24]

Several people have criticized the level of training required to perform behavior modification procedures, especially those which are restrictive or use <u>aversives</u>, <u>aversion therapy</u> or <u>punishment</u> protocols. Some desire to limit such restrictive procedures only to licensed psychologist or licensed counselors. Still others desire to create an independent practice of behavior analysis through licensure to offer consumers choices between proven techniques and unproven ones (see <u>Professional practice of behavior analysis</u>). Level of training and consumer protection remain of critical importance in applied behavior analysis and behavior modification.

While <u>behavior analysis</u> continues to grow as a science by including more environmental factors and <u>behaviorism</u> grows as a philosophy, some continue to criticize it for being reductionist.

References

- 1. Thorndike, E.L. (1911).Provisional laws of acquired behavior or learning. In E.L. Thorndike's *Animal Intelligence*. New York, The McMillian Company.
- 2. Wolpe (1958) Pyschotheraphy by Reciprocal Inhibition
- 3. In A. J. Bachrach (Ed.), Experimental foundations of clinical psychology (pp. 3-25). New York: Basic Books
- 4. Mattin, G., & Pear, J. (2007). Behavior modification: What it is and how to do it (Eighth Edition). Upper Saddle River, NJ: Pearson Prentice Hall.
- 5, McIntosh, K. & Av-Gay, H. (2007): Implications of Current Research on the Use of Functional Behavior Assessment and Behavior Support Planning in School Systems. *IJBCT*, 3.(1), pp.38-49BAO
- 6. Waguespack, A. Vaccaro, T. & Continere, L. (2006). Functional Behavioral Assessment and Intervention with Emotional/Behaviorally Disordered Students: In Pursuit of State of the Att IJBCT, 2.(4), pp.463-480 BAO
- 7. Robetts, M. (2001). Research in Practice: Practical Approaches to Conducting Functional Analyses that all Educators Can Use. *The Behavior Analyst Today*, *3 (J)*, pp.83-97ill
- 8. McIntosh, K. & Av-Gay, H. (2007): Implications of CmTent Research on the Use of Functional Behavior Assessment and Behavior Support Planning in School Systems. *IJBCT*, 3.(1), pp.38-49BAO
- 9. Waguespack, A. Vaccaro, T. & Continere, L. (2006). Functional Behavioral Assessment and Intervention with Emotional/Behaviorally Disordered Students: In Pursuit of State of the Art IJBCT, 2.(4), pp.463-480BAO
- 10. Walker, H. (1990). Acting Out Child. Soporis West
- 11. Martin, G. & Pear. (2007) Behavior Modification: What is it and how to do it. 12.:O'Donohue, W. & Ferguson, K.E. (2006). Evidence-Based Practice in Psychology and Behavior Analysis. *The Behavior Analyst Today, 7(3)* pp.335-352[2].
- 13. Satterfield, J.H., Satterfield, B.T., & Schell, A.M.(1987). Therapeutic interventions to prevent delinquency in hyperactive boys. Journal of the American Academy of Child and Adolescent Psychiatry, pp.26, 56-64
- 14. Satterfield, J.H. & Schell, A. 1997). A prospective study of hyperactive boys with conduct problems and normal boys: Adolescent and adult criminality. Journal of the American Academy of Child and Adolescent Psychiatry, 36, pp.1726-1735
- 15. Dean L. Fixsen, Karen A. Blase, Gary D. Timbers and Montrose M. Wolf (2007) In Search of Program Implementation: 792 Replications of the Teaching- Family Model. *Behavior Analyst Today* Volume 8, No. 1, pp.96-106 *Behavior Analyst Online*
- 16. Milford, J.L., Austin, J.L. & Smith, J.E. (2007). Community Reinforcement and the Dissemination of Evidence-based Practice: Implications for Public Policy. IJBCT, 3.(1), pp.77-87ill)
- 17. Spates,R.C, Pagoto, S. & Kalata, A. (2006). A Qualitative and Quantitative Review of Behavioral Activation Treatment of Major Depressive Disorder. *The Behavior Analyst Today*, *7(4)*, pp.508-517[4]
- 18. Kirkhart, Robert and Evelyn, "The Bruised Self: Mending in the Early Years", in Kaoru Yamamoto (ed.), *The Child and His Image: Self Concept in the Early Years*. New York: Houghton Mifflin Company, 1972.
- 19. Gottman, J.M., & Levenson, R. W. (1999). "What predicts change in marital interaction over time? A study of alternative models." *Family Process*, 38 (2), pp.143-158
- 20. Forgatch, M. & DeGarmo (2007). Accelerating recovery from poverty: Prevention effects for recently separated mothers. *Journal of Early and Intensive Behavior Intervention*, *4*(4), pp.681-72.BAO
- 21. Olchowski,A.E., Foster, E.M., & Webster-Stratton C.H. (2007). Implementing Behavioral Intervention Components in a Cost-Effective Manner: Analysis of the Incredible Years Program. Journal of Early and Intensive Behavior Intervention, Vol. 3;(4) and Vol 4(1) Combined Edition, pp.284-304.BAO
- 22. Holland, J. L. (1976). A new synthesis for an old method and a new analysis of some old phenomena. *The Counseling Psychologist, 6,* pp.12-15
- 23. BF Skinner, 1974, Beyond Freedom and Dignity
- 24. D Baer, RF Peterson, JA Sherman Psychological Modeling: Conflicting Theories, 2006

Definition and Description

Behavior Is the way a person reacts to a particular stimulus and varies from individual to individual.

Behavior Modification is a treatment approach that replaces undesirable behaviors with more desirable ones though reinforcement.

- Behavior modification helps change unwanted behavior and increases desired behavior. Rewards such as praise, food or even money can reinforce the desired behavior and increase its frequency.
- For example: If a child sits still during a lesson, this is desired behavior. A teacher reinforces this by giving the child a star on a chart or praise, to encourage the child to repeat the behavior; the child sits still during the next lesson to get another star. This is behavior modification.

So why are we talking about this?

The goal of any behavior modification is to:

- Change and adjust behavior that is inappropriate or undesirable in some way
 - o It is important Is that the undesirable behavior be isolated and observed
 - With this observation comes awareness of the behavior on the part of the parent and/or treatment team, and also on the part of the Individual whose behavior is being addressed
 - Finally, with this awareness comes the greater goal of understanding the cause and effect of the behaviors, thus helping to affect change.
 - This is understanding the *FUNCTION* of the behavior.

A Few Thoughts About How We Learn

In an effort to understand the functions of behavior, it is important to talk about how we learn.

Nature vs. Nurture

- Is a theoretical debate over what portion of behavior is learned (personal experience) vs. what portion of a behavior Is Innate.
- So, we ask ourselves, what portion of this Influence Is cause for differences in our physical and behavioral traits.
- What do you think? At what rate to you believe nature and nurture influence human behavior?
- What about you Is because of nature? What about you is because of nurture?

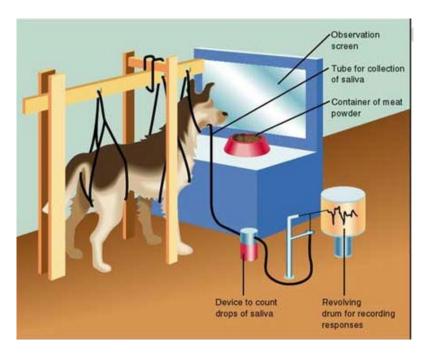
Beginning and Development of Behavior Modification

Ivan Pavlov - 1849-1936
Edward Thorndike - 1874-1949
John Watson - 1878-1958
B. F. Skinner-1904 -1990

Ivan Pavlov

Classical Conditioning

Ivan Pavlov studied canine salivation and accidentally discovered conditioning. He noticed if he paired meat powder with the ringing of a bell, after some time the bell alone would cause salivation in dogs, even when not paired with meat. He conditioned his dogs to respond with salivation to a bell, in this way he modified their behavior. You may notice this yourself when you open a can of <u>dog food</u> and your dog suddenly appears. It associates the sound of the can opening with food.



Edward Thorndike

The Law of Effect

- Responses that are closely followed by satisfying consequences become associated with the situation, and are more likely to recur when the situation is subsequently encountered.
- Responses that are followed by aversive consequences, associations to the situation become weaker.
- He also developed the first three "Laws of learning:" readiness, exercise, and effect.
- Thorndike specified three conditions that maximizes learning:

- The law of effect stated that the likely recurrence of a response is generally governed by its consequence or effect generally in the form of reward or punishment.
- The law of recency stated that the most recent response is likely to govern the recurrence
- The law of exercise stated that stimulus response associations are strengthened through repetition.

(We will talk more about these conditions later.)

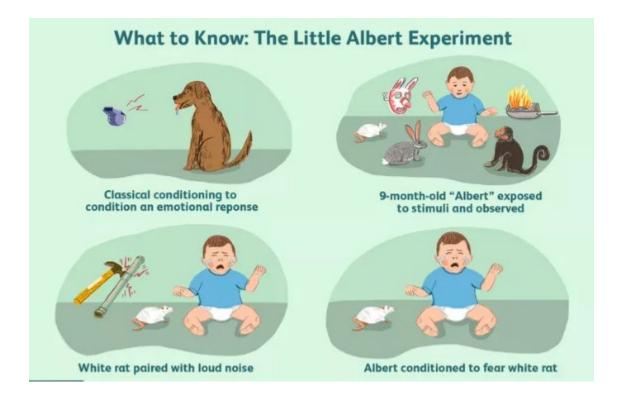
Watson and Skinner

- American psychologist John Watson, best known for his controversial experiments with a young orphan named Albert, demonstrated that the acquisition of a phobia could be explained by classical conditioning.
 - Below Is famous quote in the heyday of behaviorism, when the child was considered to be a 'tabula rasa' (blank slate) onto which anything could be sculpted through environmental experience. This would be a 100% environmental view, but virtually no psychologists would accept such an extreme position today.
- "Give me a dozen healthy Infants & my own specific world lo bring them up in, & I'll guarantee to lake any one at random & train him to become any type of specialist I might select doctor, lawyer, artist, merchant, chef & yes, even beggar & thief, regardless of his talents, penchants, tendencies, abilities, vocations, and race of his ancestors."
- Harvard psychologist B. F. Skinner's early experiments produced pigeons that could dance, do figure eights, and play tennis. Today known as the father of behavioral science, he eventually went on to prove that human behavior could be conditioned in much the same way as animals.

John Watson

All About Albert

 John Watson extended Pavlov's ideas to humans. In 1921, he studied Albert, an 11-month-old child. He introduced Albert to a white rat and paired the rat with a loud noise. At first, the child had no fear of the rat, but after repeatedly hearing the loud noise he began to fear all white rats. He modified the child's behavior to fear white rats and created a phobia.



B. F. Skinner

Positive Reinforcement

BF Skinner demonstrated positive reinforcement. Skinner had a box with a lever that released food when pushed. He introduced a rat to the box, and when the rat pushed the lever, he received food. The rats quickly learned to touch the lever immediately to get food. The positive action of receiving food reinforced the lever pushing behavior. Using behavior charts in school and receiving gold stars for good behavior are examples of positive reinforcement.

Negative Reinforcement

BF Skinner placed the rat in a different box with a lever. Once In the box the rat received an electric current. While running around the box, the rat would push the lever, which immediately turned off the electric current. The rats learned to touch the lever immediately to switch off the current. Their behavior was reinforced by escaping a negative situation. If a child can get out of lime-out by behaving themselves, this is negative reinforcement.

Punishment

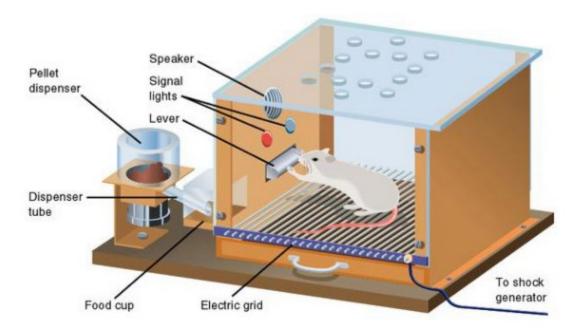
BF Skinner stressed that punishment should only be used as a last resort. He believed that positive reinforcement was more effective because people would work harder for a reward than through fear of punishment. If a child is given detention when they misbehave, this is punishment. Skinner believed, however, that punishment did not result In long term behavior modification, and had only temporary results.

Continuous Reinforcement...

- Is the original scenario: Every time that the rat does the behavior (such as pedal-pushing), he gets a rat goodie.
- The fixed ratio schedule was the first one Skinner discovered: If the rat presses the pedal three times, say, he gets a goodie. Or five times. Or twenty times. Or "x" times. There is a fixed ratio between behaviors and reinforcers: 3 to 1, 5 to 1, 20 to 1, etc. This is a little like "piece rate" in the clothing manufacturing industry: You get paid so much for so many shirts.
- The fixed interval schedule uses a timing device of some sort. If the rat presses the bar at least once during a particular stretch of time (say 20 seconds), then he gets a

goodie. If he fails to do so, he doesn't get a goodie. But even if he hits that bar a hundred times during those 20 seconds, he still only gets one goodie! One strange thing that happens is that the rats tend to "pace" themselves: They slow down the rate of their behavior right after the reinforcer, and speed up when the time for it gets close.

Skinner also looked at variable schedules. Variable ratio means you change the "x" each time: first It takes 3 presses to get a goodie, then 10, then 1, then 7 and so on. Variable interval means you keep changing the time period -- first 20 seconds, then 5, then 35, then 10 and so on.



Primary Reinforcer



Secondary Reinforcer



Principles of Learning

- 1. Learning is fundamentally social.
- 2. Cracking the whip stifles learning.
- 3. Learning needs an environment that supports it.
- 4. Learning crosses hierarchical bounds.
- 5. Self-directed learning fuels the fire.
- 6. Learning by doing is more powerful than memorizing.
- 7. Failure to learn is often the fault of the system, not the people.
- 8. Sometimes the best learning is unlearning.
- 9. Video

Principles of Learning

- Readiness Individuals learn best when they are physically, mentally, and emotionally ready to learn, and they do not learn well if they see no reason for learning.
- If an individual has a strong purpose, a clear objective, and a definite reason for learning something, they make more progress than if they lack motivation. When someone is ready to learn, they meet the Therapist at least halfway, and this simplifies the Therapist's job.
- Since learning is an active process, one must have adequate rest, health, and
 physical ability. One who is exhausted or in ill health obviously cannot learn
 much. If outside responsibilities, interests, or worries weigh too heavily on their
 minds, if their schedules are overcrowded, or if their personal problems seem
 insoluble, students may have little interest in learning.

Principles of Learning

- Exercise states that those things most often repeated are best remembered.
 It has been proven that students learn best and retain information longer when
 they have meaningful practice and repetition. The key here is that the practice
 must be meaningful. It is clear that practice leads to improvement only when it's
 followed by positive feedback.
- The human memory is fallible. Students do not learn complex tasks in a single session. They learn by applying what they have been told and shown. Every time practice occurs, learning continues. All of these serve to create learning habits.
- The Therapist must repeat important items of subject matter at <u>reasonable</u> <u>intervals</u>, and provide opportunities for students to practice while making sure that this process is directed toward a goal.
- Effect Is based on the emotional reaction of the student. It has a direct relationship to motivation. The principle of effect is that learning Is strengthened when accompanied by a <u>pleasant or satisfying feeling</u>, and that learning Is weakened when associated <u>with</u> an unpleasant <u>feeling</u>.
- The student will strive to continue doing what provides a pleasant effect to
 continue learning. Positive <u>reinforcement</u> is more apt to lead to success and
 motivate the learner, so the Therapist should recognize and commend
 Improvement. Whatever the learning situation, it should contain elements that
 affect the students positively and give them a feeling of satisfaction. Therefore,
 Therapists should be cautious about using punishment in the classroom.
- Experiences that produce feelings of defeat, frustration, anger, confusion, or futility are unpleasant for the student.
- It is better to tell students that a problem or task₁ although difficult, is within their capability to understand or perform. Every learning experience does not have to be entirely successful, nor does the student have to master each lesson completely. However, every learning experience should contain elements that leave the student with some good feelings.
- Primacy, the state of being first, often creates a strong, almost unshakable, impression. Things learned first create a strong impression in the mind that is difficult to erase. If, for example, a student learns a faulty technique the Therapist will have a difficult task correcting bad <a href="https://habits.ncbi.nlm.ncb
- The student's first experience should be positive, functional, and lay the

foundation for all that is to follow. What the student learns must be procedurally correct and applied the very first time. The Therapist must present subject matter in a logical order, step by step, making sure the students have already learned the preceding step

Principles of Learning

- The principle of recency states that things most recently learned are best remembered. Conversely, the further a student Is removed time-wise from a new fact or understanding, the more difficult it is to remember. For example, it is fairly easy to recall a telephone number dialed a few minutes ago, but it is usually impossible to recall a new number dialed last week. The closer the training or learning time is to the time of actual need to apply the training, the more apt the learner will be to perform successfully.
- Information acquired last generally is remembered best; frequent review and summarization help fix in the mind the material covered. Therapists recognize the principle of recency when they carefully plan a summary for a lesson or learning situation. The Therapist repeats, restates, or reemphasizes important points at the end of a lesson to help the student remember them. The principle of recency often determines the sequence of lectures within a course of instruction.
- **Intensity** The more intense the material taught, the more likely it will be retained. This principle implies that a student will learn more from the real thing than from a substitute.
- For example, a student can get more understanding and appreciation of a movie by watching it than by reading the script. The more immediate and dramatic the learning is to a real situation, the more impressive the learning is upon the student.
- The Therapist needs to use imagination in approaching reality as closely as possible. Demonstrations, skits, and role playing do much to increase the learning experience of students.
- **Freedom** states that things freely learned are best learned. Conversely, the further a student is coerced, the more difficult is for him to learn, assimilate and implement what is learned.
- Since learning is an active process, students must have freedom: freedom of choice, freedom of action, freedom to bear the results of action -- these are the three great freedoms that constitute personal responsibility. If no freedom is granted, students may have little interest in learning.

Key Points

Keep Patient

The key, experts agree, is not to hope or wish for overnight results, but to be patient and be consistent with your program. By remaining level headed and knowing that behavior Improvement will take time, hard work, and complete devotion, you will achieve your goals without causing other troubles in the process.

Track Changes

It is also important to track changes in behavior, and notice even slight behavior Improvements In your child. A behavior chart is good for this, it gives both you and your child a chance to see actual behavior improvement this is great for the reward gratification and self-esteem building it will do for your child and you and other family members will also benefit from being able to see improvement in behavior over time.

Be Realistic

Behavioral specialists also stress rather than worrying so much as to when you will see improvement It is more Important to site specific behaviors that you want to see change, set realistic goals, follow the program with patience, perseverance and consistency and you will accomplish behavior Improvement, and probably In less lime then you thought.

Know Your Role

It is understandable that parents feel the need to take control of their children's behavior but the reality is you cannot do that. By being demanding and throwing them into a world of orders you will only separate the bond even further, resulting in many problems down the road. Sit back, and let them take advantage of the rules and consequences set in the home. Let them make their mistakes, and live the consequences, then move forward stamping the situation as lesson learned.

- Guideline for Use of Punishment
- Do not use physical punishment
- Punish inappropriate behavior immediately
- Positively reinforce appropriate behavior
- Clarify what behavior is being punished and why (separate the person from the behavior)
- Do not mix punishment with rewards
- Do not back down once you begin to punish

Reinforcement and Discipline Issues

Research has found the key to administering punishment (i.e. warnings, informal discussion, pay loss, etc.) include:

- deliver the punishment very soon after the undesirable response
- give moderate levels of punishment-not too high or low
- punish the undesirable behavior, riot the person (don't say "you have a bad attitude" but rather "not being at your desk is causing major problems")
- use punishment consistently
- clearly communicate the reasons for the punishment

Key Points

Punishment, penalty, and negative reinforcement will never create more than minimal effort.

ONLY POSITIVE REINFORCEMENT will inspire people (including your children) to give extra, voluntary, enthusiastic effort.

Use the negative consequences as necessary, and put extra effort into creating positive reinforcements. This is a key behavior modification technique.

Understanding Positive and Negative

Here the terms "positive" and "negative" are not used in their popular sense:

- "positive" refers to the addition of something, while "negative" refers to the subtraction, or removal of something
- What is added or subtracted may be either reinforcement or punishment
 - i.e. Positive punishment is sometimes a confusing term, as it denotes the addition of punishment (such as spanking or an electric shock)

Definitions

- Reinforcement is a consequence that causes a behavior to occur with greater frequency.
- Punishment is a consequence that causes a behavior to occur with less frequency.
- Extinction is the lack of any consequence following a behavior. When a
 behavior produces neither favorable nor unfavorable consequences, it will occur
 with less frequency. When a previously reinforced behavior is no longer
 reinforced with either positive or negative reinforcement, it leads to a decline in
 the response.

Reinforcement, Punishment, & Extinction

- Reinforcement and Punishment, the core tools of operant conditioning, are either positive (delivered following a response), or negative (withdrawn following a response).
- This creates a total of four basic consequences, and a fifth procedure:
 - Positive reinforcement
 - Negative reinforcement
 - Positive Punishment
 - Negative Punishment
 - Extinction

Positive Reinforcement

- Positive <u>reinforcement</u> occurs when a behavior (response) is followed by a favorable stimulus (commonly seen as pleasant) that <u>increases</u> the frequency of the desired behavior.
 - i.e. In the <u>Skinner box</u> experiment, a stimulus such as food or sugar solution can be delivered when the rat engages in a target behavior, such as pressing a lever.

Positive Punishment

• **Positive <u>punishment</u>**: Also known as "punishment by contingent stimulation" occurs when a behavior (response) is followed by an aversive stimulus, such as introducing a shock or loud noise, resulting in a decrease in that behavior.

Negative Reinforcement

- Negative <u>reinforcement</u> occurs when a behavior (response) is followed by the removal of an aversive stimulus (commonly seen as unpleasant) thereby increasing that behavior's frequency.
 - i.e. In the Skinner box experiment, negative reinforcement can be a loud noise continuously sounding inside the rat's cage until it engages in the target behavior, such as pressing a lever, upon which the loud noise is removed.

Negative Punishment

- Negative <u>punishment</u>: Also known as "punishment by contingent withdrawal" occurs when a behavior (response) is followed by the removal of a favorable stimulus, resulting in a decrease in that behavior.
 - o i.e. such as taking away a child's toy following an undesired behavior

Operant Conditioning

Based on B.F. Skinner's principles of Operant Conditioning

- Operant conditioning is the use of consequences to modify the occurrence and form of behavior
- Operant conditioning deals with the <u>modification of "voluntary behavior"</u> or operant behavior
- Operant behavior "operates" on the environment and is maintained by its consequences

Observable Outcomes

This approach to understanding human behavior focuses on **observable outcomes**. In this approach there is little attempt to understand the internal state of the person, only what is observable. Furthermore, this approach assumes that:

- all complex behavior is learned, shaped, and subject to observable laws
- one can change behavior through rewards and punishment
- behavior Is determined by the environment; I.e., determined by the consequences or anticipated consequences of that behavior
- some of what we learn Is not the direct result of reinforcers but is rather the result of observing others and the consequences of their actions and modeling our behavior
- virtually all work behavior is operant

Let's Talk About the Function of the Behavior

Examining the behavior.
Behavior always occurs in three parts:

A= Antecedent

B= Behavior

C= Consequence

Function of the Behavior

The purpose that the behavior serves is to:

To Gain or To Escape

- Attention
- Activities
- Objects
- Sensory Stimulus

Examples to think about...

What do you think could be the function of the behavior?

- Mary spits at a classmate:
 - o Give an example of a positive punishment
- Bernard won't do his homework
 - Give an example of a negative punishment
- John recently refuses to comply with curfew
 - o Give an example of positive reinforcement
- Marta is always late for gym class
 - Give an example of negative reinforcement

We do not always know what is reinforcing the child, it may not be the most logical cause we think of...

ABC's

First, define the **behavior** (**B**). What is the current behavior? What is happening? What did the client do? Describe the action. Also notice when, where, and how often the behavior occurs.

Next, look for prior events that may have triggered the behavior (the **antecedent (A)**). Did anyone or anything trigger the behavior? What was happening before the behavior started? Were there any changes in the environment beforehand?

Lastly what is the **consequence** (C) of the behavior? What happens as a result of the behavior? What changes occurred in the environment or in the behavior of other people because of the client's behavior?

Scenario #1

Scenario: Brian is a 5 year-old mildly retarded boy. He is highly impulsive, hyperactive and aggressive. When he is asked to get ready for school he curses and throws his clothes on the floor. His mother yells at him and tells him his father will punish him for this behavior. This behavior is usually worse when he has not taken his morning medication.

In this example, what is the:

- Setting
- Antecedent
- Behavior
- Consequence
- Function of the behavior
- Interventions/Assessment/Follow up plan

Scenario #2

Scenario: Meghan is a 14 year-old girl diagnosed with Oppositional Defiant Disorder (ODD). When she is asked to answer questions in math class she becomes disruptive, makes noise, talks under her breath, and smirks. Her teacher gives her a detention when this happens, which she serves after school. This behavior appears to become worse when she has had a fight with her mother in the morning before school.

In this example, what is the:

- Setting
- Antecedent
- Behavior
- Consequence
- Function of the behavior
- Interventions/Assessment/Follow up plan

Behavior

Behavior is <u>not</u>:

- Your reaction to the situation
- Your interpretation of the situation
- Your expansion of the situation

What can we control?

How can we minimize problematic behavior and outbursts **through our words and actions** and then develop a systematic approach to replacing the disruptive behavior with more appropriate behavior.

Some Things to Think About

- 1. Talk about the behaviors, do not make judgments
- 2. Recognize that your job is very difficult. It is important to be able to collaborate with team members for help
- 3. Forget about failures in the past, and focus on current and future successes
- 4. Behavior change requires systematic instruction and improvement will be gradual

Identifying the behavior

Which of these are "well defined?"

- Sleeps during circle time
- Has autistic like behaviors
- · Scratches left ear constantly
- Has low self-esteem
- Can't handle transitions

A Behavior Modification Program should include:

- targeted specific behaviors
- analysis of the causes and antecedents of existing behavior or barriers to new behavior
- explicit goal setting; concrete measurable goals
- training
- clear reinforcement: praise, recognition, money, etc.
- concrete continuous feedback

To Stop Inappropriate Behavior

- Satiation Principle: To stop a child from acting in a particular way, you may allow him to continue (or insist that he continue) performing the undesired act until he tires of it.
- Extinction Principle: To stop a child from acting in a particular way, you may arrange conditions so that he receives no rewards following the undesired act.
- Incompatible Alternative Principle: To stop a child from acting in a
 particular way, you may reward an alternative action that is inconsistent with or
 cannot be performed at the same time as the undesired act.
- Punishment Principle: To stop a child from acting in a certain way, deliver
 an adversive stimuli immediately after the action occurs. Since punishment
 results in increased hostility and aggression, it should only be used infrequently
 and in conjunction with reinforcement.

To Develop a New Behavior

- Successive Approximation Principle: To teach a child to act In a manner In which he has seldom or never before behaved, reward successive steps to the final behavior.
- 2. Continuous Reinforcement Principle: To develop a new behavior that

- the child has not previously exhibited, arrange for an immediate reward after each correct performance.
- Negative Reinforcement Principle: To Increase a child's performance in a particular way, you may arrange for him to avoid or escape a mild aversive situation by improving his behavior or by allowing him to avoid the aversive situation by behaving appropriately.
- 4. **Modeling Principle:** To teach a child new ways of behaving, allow him to observe a person performing the desired behavior.
- Cueing Principle: To teach a child to remember to act at a specific time, arrange for him to receive a cue for the correct performance just before the action is expected rather than after he has performed it incorrectly.
- 6. Discrimination Principle: To teach a child to act in a particular way under one set of circumstances but not in another, help him to Identify the cues that differentiate the circumstances and reward him only when his action is appropriate to the cue.

To Strengthen a New Behavior

Decreasing Reinforcement Principle:

 To encourage a child to continue performing an established behavior with few or no rewards, gradually require a longer time period or more correct responses before a correct behavior is rewarded.

Variable Reinforcement Principle:

 To improve or increase a child's performance of a certain activity, provide the child with an intermittent reward.

Some other things to think about...

- As your child matures, it is important to involve them in setting expectations, rewards, and consequences. Empowering them in this manner will improve their self-esteem and reinforce the concept that they are ultimately the masters of their own behavior.
- Teenage years can be tough enough without ADHD, so be gentle and understanding. Communicate openly with them about the issues surrounding physical and sexual maturation.

- Continue to be consistent and fair in your own behavior. Having predictable, reasonable support in a parent and in the treatment team is a huge asset for children with ADHD.
- Children learn more quickly when they participate actively in the learning process
- Repetition increases learning
- Learning increases when the training has a meaningful purpose
- Feedback: learning Increases when the learner gets clear feedback on the results of one's actions
- Don't give the same level of rewards to everyone
- Children should participate in determining rewards
- People need to be very clear about what is being rewarded
- Clearly define an acceptable level of behavioral objective
- Make sure the target level is attainable
- Use reinforcing rewards that are salient to the Individual
- Be careful not to reward Inappropriate behavior
- Minimize the time lag between behaviors and rewards; use continuous reinforcement
- When using punishment, treat it as learning experience; state clearly what behavior is to be corrected
- Try to use natural consequences

Behavior Management and ADHD for Preschoolers

- Provide a consistent routine to the days and structure to the environment. If there will be a change, inform the child when the routine is changing or something unusual is going to happen, such as a visit from a relative, a trip to the store, or a vacation.
- Provide clear boundaries and expectations. These Instructions and guidelines are best given right before the activity or situation. A timer is a good way to build and reinforce structure and expectations
- Devise an appropriate reward system for good behavior or for completing a certain number of positive behaviors, such as a merit point or gold star program with a specific reward, such as a favorite activity.
- Engage your child in constructive and mind-building activities, such as reading, games, and puzzles by participating in the activities yourself.

Behavior Management and ADHD for Children 6-12

- As much as possible, give clear instructions and explanations for tasks throughout the day. If a task is complex or lengthy, break it down into steps that are more manageable.
- Reward the child appropriately for good behavior and tasks completed. Set up a clear system of rewards (point system, gold stars) so that the child knows what to expect when they complete a task or refine their behavior.
- Bear in mind that as your child gets older they will be more sensitive to how they
 appear to others and may overreact or be unduly ashamed when they are
 disciplined in front of others. It is important to have a plan for appropriate
 discipline for misbehaving that does not require carrying out in front of others.
 Setting up a specific consequence for a certain behavior is probably the best
 method of providing consistency and fairness for your child.
- Communicate regularly with teachers so that behavior patterns can be dealt with before they become a major problem and before the teachers get overly frustrated with the situation.
- Always set a good example. Children with ADHD need role models for behavior more than other children, and the adults in their lives are very important.

Treatment Plan

Strengths: Challenges: Challenging Behavior:

- Short Term Goal
- Long Term Goal
- Tasks to Accomplish Goal

Let's Write a Treatment Plan

Jowanna is a 16 year old female who recently moved into a foster families house from a one year stay at a residential center. Her mother is involved through visitation every week.

- Jowanna has an IQ of 75.
- She has difficulty with low frustration tolerance, can be aggressive and at times uses biting as a means of communication,
- She enjoys music, dancing, basketball and touch.
- She has little understanding of personal space and has difficulty sleeping,
- She is taking medication to help with her sleeping Issues as well as her aggressive behavior and is compliant with her medication regimen.
- Jowanna struggles in math and has a tendency to present behaviors during this class instruction.
- Jowanna responds better to males and engages them appropriately. She has engaged in self injurious behaviors in the past but this has not been In an Issue since she moved into the foster family.
- The foster family is made up of two other siblings. Both younger than Jowanna. The
 two siblings, John and Sarah are 13 year old twins. She gets along with both of
 them. At times there are some issues with Sarah and fights break out.



Kaleidoscope Family Solutions Inc.

Behavior Modifications 1 & 2 - Training Module Post-Test

Name:		Date
1.) Define behavior modification:		
•	•	e argument. What is your personal opinion about whether or not you
were mo	ore affected by Nature or Nurtur	9? wny?
		of "conditioning" was discovered by Ivan Pavlov accidentally.
	a. Law of Effect:	
	b. Law of Recency:	
5.) True	or False (please circle): John Wa	tson is known as the Father of Behavior Science
6.) What	are the core tools of operant co	onditioning (four basic consequences and fifth procedure)?
	1.)	2.)
	3.)	4.)
	5.)	
7.) What	is the difference between punis	
•	-	the behavior, it is important to consider that Behavior always occurs,and
III tillee		, and otherwise known as the ABC's of behavior.
Q \ Durin		the following regarding Megan's behavior.
a.) Duilli	•	
	Setting:Antecedent:	
		
	Behavior:	
	Consequence:	
	Function of Behavior:	

- 10.) Please circle the behavior that is considered "well-defined"?
 - 1. Allie sleeps during circle time
 - 2. Kerry has autistic-like behaviors