The Eden Decision Model & Accountability Process

The Eden Decision Model (EDM) is a set of rules and procedures to guide decisions about the treatment programs Eden uses with its students. It follows the same objective as other strategies that have been developed to analyze, assess, and modify behavior (Evans & Myer, 1985; Groden, 1989; O’Neill et al., 1990; Parrish, Iwata, Dorsey, Bunck & Silfer, 1985; Touchette, MacDonald & Langer, 1985), but the EDM attempts to provide a more comprehensive analysis of the factors contributing to a behavior, and utilizes more input from staff and parents about the possible functions of a behavior. The EDM’s Accountability Process enables teachers to track the effectiveness of behavioral interventions, and to modify them to achieve the greatest possible effectiveness. The Accountability Process, also a set of guidelines, ensures that the intervention chosen is the least restrictive intervention possible, and that the intervention meets clinical and human rights criteria.
Together, the EDM and its Accountability Process give staff members a concrete way to analyze and modify behavior. They provide a step-by-step outline of the questions that must be asked, and the decisions that must be made, to select the least intrusive, most effective intervention to modify a student’s behavior.

The EDM consists of five related components: 1) determination of need; 2) analysis of environmental conditions; 3) analysis of curricular conditions; 4) differential reinforcement; and 5) analysis of behavior maintenance conditions—development of an aversive decelerative procedure. These five elements are closely related. They are discussed in the following sections.

**Component 1—Determination of Need**

The first component of the EDM enables staff members to develop a data-based determination of need. Not all unacceptable behaviors need to be decreased through formal behavior reduction programs. To determine whether a behavior needs to be changed, and how pressing the need for change is, three questions are asked:

1. Is the behavior harmful to the student or to others?
2. Does the behavior interfere significantly with the student’s work or learning?
3. Does the behavior seriously restrict the student’s access to his community?

If the answer to all of these questions is “no,” a formal program will not be developed. If, however, the answer to any one of these questions is “yes,” an analysis is begun to change the behavior. Each of these questions refers to a critical area of behavior for the student. Any behavior that is harmful, interferes with the student’s work, or significantly restricts the student’s access to his community is a behavior that needs to be modified.

If it is determined that a behavior needs to be changed, an operational definition of the behavior is developed. The definition of the behavior is a written, objective description of the behavior that accurately describes the behavior and is easily and reliably understood by everyone involved in the student’s treatment. This definition is field-tested by being given to several staff members who are not involved in authoring the description. If independent observers agree on the occurrence of the behavior based on the writ-

---

We try to determine why behavior occurs. With self-injury, we start by asking why he hits his head every time we present a particular task. There must be something about that task he does not like or understand. Then we look at the different elements of the task, where it is taught, and what else is going on around the teaching session. Only by analyzing the situation in great detail, and trying several different strategies to get him to stop hitting his head, will we really understand the function of the behavior and be able to stop it.

—Lyn O’Donnell, Coordinator, Clinical Services
ten description, the description is considered reliable. The operational definition of the behavior helps staff members address the behavior in a consistent manner, and increases the effectiveness of the intervention strategy.

The next step is to collect baseline data on the occurrence of the behavior. This data provides objective information about the behavior before intervention strategies begin. The frequency and duration of the behavior is recorded, along with an antecedent-behavior-consequence (A-B-C) (Bijou, Peterson, Harris, Allen & Johnson, 1969) analysis. This analysis gives a general idea of the events that immediately precede and follow the behavior, and also includes other information that may affect the behavior; including environmental conditions, physical conditions such as the amount of sleep the student receives, what the student has eaten, and psychological conditions such as the student’s affect. The baseline period lasts a minimum of five days, or fewer for serious self-injurious or aggressive behaviors, until a stable rate has been achieved.

Gary Montgomery, Operations Coordinator, describes the process of collecting baseline data, and explains how important it is in developing an effective intervention strategy:

_The analysis we do provides a good indication of what the motivation for a behavior is. We look at the behavior in different settings, note when it occurs—is the child alone or in groups, under stress, or in leisure time? Then we start to find out some interesting things about the child and the behavior. For example, we may think at first that a child screams because he does not want to help make lunch. The data, however, may show instead that the child screams whenever he has to enter the lunch room. With more analysis, we may be able to determine that the child dislikes crowded places in general. Knowing that enables us to develop much more effective intervention strategies. For this child, we would likely develop a program to gradually desensitize him to crowded places._

_Quite often a subjective observer, who is not using data, is wrong about behavior. Staff members who are inexperienced have said “I cannot believe his behavior. He is hitting all the time.” But after a baseline of the behavior is done, it turns out that he actually hits maybe four times a day. It only seems to happen more often because hitting is a very disruptive behavior._

---

1 A systematic analysis of baseline and A-B-C data is conducted in Component II of the EDM.
Below is an example of the checklist teachers complete for Component I of the EDM. The analysis is being done for Sean in the Early Childhood Program. The behavior being analyzed here has been a problem of Sean’s for some time, and so has been previously analyzed through the EDM. However, previous strategies to reduce Sean’s behavior have not been sufficiently effective, so teachers have begun again at Component I to re-analyze Sean’s behavior. The example below is from this re-analysis.

Behavioral Reduction Program Checklist

Component I: Determination of Need

Topographical Classification of Behavior:
Aggression (hitting, grabbing, and pinching)

Is the behavior:
- harmful to self or others? Yes
- highly work interfering? Yes
- restricting access to the community? Yes

Explanation:
Sean’s aggression, especially if directed toward the other students, can be harmful. He seems to avoid work by being aggressive, and his aggression is not acceptable in the community.

Operational Definition of the Behavior:
Any aggression toward others with the exception of aggression accompanied by crying. (Reliability of definition established through previous analysis.)

Baseline Information:
Date of baseline: March 26 through April 2.
Type of baseline: A measure of the frequency of the behavior.
Rate at baseline: 76 occurrences per day on average.
Antecedent-Behavior-Consequence analysis: see the following pie chart.

Additional Baseline Information:
Sean’s aggression is often accompanied by self-injurious behavior and crying. His total aggression averages twenty minutes per day.

Does the Baseline Data Validate a Need for an Intervention Program? Yes
Are there potential medical causes?
No. Sean has already been checked for ear infections and bladder problems, both of which have been causes of unacceptable behavior for him in the past.

Current rate of behavior:
76 occurrences per day, unchanged.

According to the data, is there a need for the decision-making process to continue from this point?
Yes
If yes, begin Component II analysis.

Aggression/SIB for Sean
% by Antecedent Event

- Denied 28.7%
- "No" 1.0%
- R+Sit 2.0%
- Attn 2.0%
- Rep.Aggr. 5.0%
- Sitting 6.9%
- Sds 8.9%
- "Sit" 11.9%
- No Change 15.8%

PP = Physical prompts were used
"Sit" = Told to sit
Waiting = While waiting
Attn = Attention-getting behavior
"No" = Told no

No Change = No change in activity
Sds = Variety of Sds
Rep.Aggr. = Repeated aggression
R+Sit = Reinforced for good sitting
Denied = Denied a desired activity
When we have performed an analysis of a behavior, the program we develop is often successful. There are rare cases, however, in which we cannot do this analysis right away. A behavior may be so serious that we have to make a temporary clinical guess as to why it occurs, and initiate a behavior reduction program right away. We would then follow this up with more a careful analysis. We are not generally as successful when we have to make quick decisions. For example, if a child is hitting, we could initiate a temporary program to restrain his hands. At this point, we have not asked why he is hitting. He could be hitting to get attention. If so, we will likely reinforce, rather than reduce, his hitting because restraining his hands gives him attention.

Occasionally, the baseline data reveal that the student’s behavior does not occur with enough frequency or severity, or does not sufficiently limit learning or community opportunities, to justify intervention. In these cases, the decision-making process ends. If the data does indicate that intervention is necessary, however, the process continues, and possible medical causes for the behavior are investigated.

A wide variety of medical conditions, such as allergies, headaches, toothaches, viruses, and other infections, can adversely affect behavior, especially in people with autism. Because many people with autism lack the cognitive ability or language skills to effectively communicate that they are in pain or simply do not feel well, possible medical causes for a behavior are analyzed and eliminated before any behavioral intervention is begun. For example, several possible medical causes for Sean’s aggressive behavior were explored. Carol Markowitz, Director of Educational Services:
Sean frequently has problems with ear infections, so we looked at them as a possible cause for his aggression. He was also having toilet accidents, so we did a urinalysis to ensure that he did not have a urinary infection. Medical tests revealed that he did not have either of these problems.

If a medical condition is found, appropriate treatment and monitoring are obtained, and the decision-making process ends. However, if no medical conditions are identified, or if a medical condition is treated and the behavior persists, the decision-making process proceeds to the second component of the EDM, an analysis of environmental conditions.

**Component II—Analysis of Environmental Conditions**

The second component of the EDM requires a more thorough examination of environmental conditions that surround a behavior. Teachers assess conditions in the student’s environment, such as the amount of heat and light in a room, the type of furniture, the clothes a student wears, and other physical factors that could influence behavior. These are primary environmental conditions. They are assessed by asking if the student’s environment is physically uncomfortable. Intervention at this level can be as simple as moving a student away from a drafty window or providing him with a different chair.

Secondary environmental conditions are also assessed. These are defined as conditions that might distract or confuse a student, such as excessive noise, an overcrowded work-place, or interactions with a teacher that involve complex responses. Intervention strategies for behavior related to secondary environmental conditions could include moving the student to a less crowded or noisy room, or the student could be allowed not to perform a task that requires multiple steps.

---

We have an ecological approach to behavior. We look at the whole environment the child is in, instead of just looking at the behavior itself. For example, knowing that a child hits himself twenty times a day doesn’t tell us much about the behavior. We have to know why he hits himself, when, and what makes him stop. Figuring out why a behavior is done is where the EDM really comes in. A child often can’t tell us why he does something, so we have to use other ways to analyze the behavior. We try to get as sophisticated an analysis as we can of every behavior we treat in order to determine the child’s motivation for the behavior.

—Carol Markowitz, Director of Educational Services
The second component of the EDM also provides an assessment of the student's ability to interact with his environment. Teachers ask if a student can communicate his responses to the environment in a functional and acceptable manner. If he cannot, he may become frustrated, which could be the cause of his behavioral problem. Research has clearly demonstrated a correlation between increases in communication and decreases in problematic behavior (Carr & Carlson, 1993; Durand & Carr, 1992; Wacker et al., 1990; Carr & Kemp, 1989; Bird, et. al., 1989).

---

This is the checklist for Sean in Component II of the EDM. This checklist is from an earlier analysis of Sean's behavior through the EDM. The intervention suggested here was not sufficiently effective in reducing Sean's aggression. However, it provides a good example of how teachers analyze a student's environment for possible causes of a problematic behavior.

**Behavioral Reduction Program Checklist**

**Component II: Analysis of Environmental Conditions**

**What conditions in the student's physical environment may be perceived by the student as being uncomfortable, as indicated by their association with the targeted behavior?**

The A-B-C pie chart indicates that Sean's environment is comfortable.

**What conditions in the student's learning environment may be perceived by the student as being distracting, as indicated by their association with the targeted behavior?**

The A-B-C pie chart does not indicate that Sean's aggression is related to distracting conditions in the environment.

**Does the student demonstrate an ability to exert appropriate control over his environment, with emphasis on situations associated with the display of the targeted behavior?**

No. The A-B-C pie chart shows that Sean is more aggressive when he is told to do something, or when he is denied something.

**If "No" what associated programming is indicated?**

Sean may be trying to communicate so subtly that teachers are not able to pick up on his cues. Teachers will pay more attention to Sean's attempts to communicate.
Interventions to help the student interact more successfully with his environment could include teaching him functional communication, choice-making skills, or other ways to deal with a disturbing environment. For example, a student who finds bright rooms annoying may be taught to move himself away from the lights. A student who finds crowded and noisy places disturbing may be slowly desensitized to excessive noise and crowding.

Interventions to improve the control a student has over his environment include teaching communication alternatives to unacceptable behaviors, such as

Sean will also be given a greater variety of reinforcers, and teachers will be sure he gets the opportunity to choose among them. And, Sean will be able to choose from a variety of activities, so he has more control over his day.

**DOES THE STUDENT HAVE APPROPRIATE ALTERNATIVES TO THE TARGETED BEHAVIOR?**
Possibly not. Sean’s reward system will be analyzed to ensure that the rewards he receives for communicating appropriately are greater than the reward he receives by hitting himself or his teacher.

**RESULTS OF PROGRAMMING:**
Sean is able to choose among a variety of reinforcers and activities, and his reward system has been analyzed. Teachers have also paid more attention to Sean’s possible attempts at communication. However, Sean’s behavior is still problematic.

**AT THIS POINT, IS THE STUDENT’S PHYSICAL ENVIRONMENT COMFORTABLE AND CAPABLE OF PROMOTING THE DEVELOPMENT OF APPROPRIATE ALTERNATIVES TO THE TARGETED BEHAVIOR, AND IS PROGRAMMING IN PLACE TO TEACH APPROPRIATE ENVIRONMENTAL CONTROL?**
Yes.

**CURRENT RATE OF BEHAVIOR:**
Approximately 70 instances per day.

**ACCORDING TO THE DATA, IS THERE A NEED FOR THE DECISION-MAKING PROCESS TO CONTINUE FROM THIS POINT?**
Yes.
asking for help instead of throwing materials, or signing “go away” instead of becoming frustrated. Donna Viciomini, Assistant Director for Education and Retreat Support Services:

*We try to show the children other ways to express themselves than being aggressive, and how they can channel their energy in a positive way. We do this by trying to help them work through their own misunderstandings. They might not know, for example, why they are feeling sad or frustrated, or what to do about it. They may show these emotions through aggression. We help them work out ways to deal with their feelings other than by being aggressive.*

Other interventions which help the student interact successfully with his environment include choice-making skills, tolerance training, and relaxation techniques.
When Sean's teachers analyzed his aggression at a later date, they had a different answer to the question of whether Sean had appropriate alternatives to being aggressive. They responded:

Sean may still not have appropriate alternatives to the targeted behavior. Therefore, a program will be developed to give him a more appropriate communicative alternative than aggression. Sean will be given an "escape" option on his voice-output computer and teachers will train Sean in what it means. When he asks to take a break, Sean will be excused from his work, and so will immediately reap the benefits of communicating. He will escape-avoid his work for a while to do something he loves, such as jump on the trampoline or climb on the climber.

After implementing this program, Sean's aggression decreased to about 60 instances per day. As Sean learned what the option meant, he began using it more to indicate his desire to quit working. However, teachers felt that his rate of aggression was still too high. So they proceeded to the next component of the EDM.

If one of these interventions significantly reduces the targeted behavior, the decision-making process ends. The student's physical environment is comfortable and he can adequately interact with his environment. If the data do not show a reduction in the targeted behavior, however, other factors must be causing the behavior. The decision-making process then proceeds to Component III.

**Component III—A Functional Analysis of Curricular Conditions**

The third component of the EDM is an analysis of the student's curriculum. It enables teachers to determine if something in the student's curriculum is causing the targeted behavior. The key question teachers ask is "Does a particular task always precede the behavior?" A task may cause unacceptable behavior because it is too difficult for the student, or involves some steps that have not yet been mastered. A task may take a long time to complete, and may be boring, or simply disliked. The A-B-C analysis done in Component III is used to determine whether the behavior is related to a particular task.

Sean's data indicated that he was not having a problem per se with the curriculum we had developed for him, but he was still showing a lot of aggressive behavior. When it became clear that our approach was not working, we looked at his reinforcement system. The staff members did several days of antecedent data collecting to see what preceded his aggressive behavior, and what was reinforcing to him. We also looked again at what reward choices we were offering him, and what activities he was given to choose from during the day.

—Carol Markowitz, Director of Educational Services
Below is the checklist completed by Sean’s teachers for Component III.

Behavioral Reduction Program Checklist

Component III: A Functional Analysis of Curricular Conditions

Does the data indicate that a task precipitates the targeted behavior?
Yes. Sean is aggressive in teaching situations where he receives heavy physical prompts. Physical prompts are used with him mostly in adaptive physical education activities. Sean is also aggressive when he has to wait his turn.

Can the task be removed from the student’s repertoire?
No. Sean needs adaptive physical activity and needs to learn how to wait his turn, i.e., be patient.

Does the task seem too complex or difficult?
No. Sean is able to wait, and to participate in adaptive physical activity.

Does the task seem boring?
Quite possibly. Sean at times seems bored with the equipment he works with. Adaptive physical education appears not to interest him, and he does not have a strong desire to participate in such teaching sessions.

Intervention Strategies:
In adaptive physical education groups, Sean will only need to stay in his pre-assigned place to be reinforced. He will not need to participate in the group, and so will receive fewer physical prompts. Teachers will also use more gestural, and fewer physical, prompts with him.

Teachers will also change the equipment Sean works with in teaching sessions, and will present the equipment to Sean in a different fashion to make it more interesting to Sean.

Results of Programming:
Sean’s participation in the group has dropped, but he is staying in place more. His interest in teaching sessions has not changed significantly, and his rate of aggression is about the same.

At this point, is the student’s curriculum individualized, functional, and appropriate?
Yes.

Current rate of behavior:
Remains at approximately 60 instances per day.

According to the data, is there a need for the decision-making process to continue from this point?
Yes.
If a correlation between a task and the behavior is found, teachers evaluate how well the student and the skill are matched. The skill may be too difficult, and so may need to be broken down into smaller parts. Or, the skill may need to be made more relevant. For example, instead of teaching basic measurement skills, the student may need to be taught how to measure the ingredients for the day’s lunch. Occasionally, a skill can be deleted from the curriculum, but only if the removal of the task of learning the skill does not inadvertently reinforce the targeted behavior. Skills that are essential for independent functioning in the future are never deleted.

After these interventions have been implemented, the frequency and duration of the behavior is again examined. If the behavior has been reduced successfully, the decision-making process ends. If not, the process proceeds to the next component of the EDM.

---

**Fig. 3. Component III—Functional Analysis of Curricular Conditions**
COMPONENT IV—BEHAVIOR REDUCTION THROUGH DIFFERENTIAL REINFORCEMENT

The strategies developed to modify behavior through Component III of the EDM are “preemptive” in nature. They attempt to decrease the frequency and duration of the targeted behavior by manipulating the conditions associated with the behavior, and teaching the student how to accommodate those conditions. The intervention strategies in Components IV and V, on the other hand, are reactive in nature. These strategies react to the targeted behavior rather than try to change the conditions causing the behavior.

In Component IV of the EDM, procedures to modify the targeted behavior are developed around several structured differential reinforcement strategies. Differential reinforcement is a technique that involves reinforcing desired behaviors while ignoring unacceptable ones. Since most desired and unacceptable behaviors cannot occur simultaneously—working on an assembly task is directly incompatible with hand flapping, for example—differential reinforcement procedures teach people to replace unacceptable behaviors with desired ones.

There are many types of differential reinforcement procedures. Differential reinforcement of other behaviors (DRO) involves reinforcing for longer and longer periods of time in which a person does not engage in the targeted behavior, and so reinforces other appropriate behavior. In the differential reinforcement of low rates of behavior (DRL), a student is reinforced for lower and lower frequencies of the targeted behavior. A DRL procedure is often used as a precursor to a DRO procedure because each reinforces the student for gradually replacing the unacceptable behavior with desired behavior. The differential reinforcement of incompatible behaviors (DRI) reinforces the student for behaviors that are directly incompatible with the targeted behavior.² The differential reinforcement procedure chosen de-

² There are other differential reinforcement procedures, namely DRA, DRC, and DRH. In the differential reinforcement of alternative behavior (DRA), a student is reinforced for behavior that produces the same effect but is more acceptable than the defined behavior (for example, tapping someone on the shoulder to get attention rather than yelling). Through the differential reinforcement of communicative behavior (DRC), a student is reinforced for communicative behavior that serves the same function as the targeted behavior (for example, asking for a preferred activity rather than engaging in it without permission). DRH is often used in functional communication training. DRH, or the differential reinforcement of high rates of behavior, is used to increase behavior. It is therefore used in skill acquisition programs rather than as a behavior reduction strategy. DRH, DRC, and DRA are especially useful procedures to employ under incidental teaching conditions.
Behavioral Reduction Program Checklist
Component IV: Differential Reinforcement

Do the data indicate any identifiable conditions which are associated with, and reinforce, the targeted behavior?
Yes. Sean often escapes from a task when he is aggressive. This is indicated by the high rates of aggression when Sean is asked to do something (including being asked to wait and to sit down).

When Sean is aggressive, he also receives attention from the teachers. This also seems to be reinforcing his aggression. The data indicate this with high rates of aggression even when there are no demands on Sean. During such times, his aggression is often identifiable solely as attention-getting.

It is fairly certain that Sean’s aggression is not motivated by noncompliance. The proximity of his outburst to teachers’ requests, and the nature of his aggression, indicate that his behavior is motivated by either the desire to escape a situation, or to get attention.

Is the targeted behavior a low frequency and low intensity aggression or self-injurious behavior?
No. In fact, the frequency of the targeted behavior has increased.

At this point, is DRO, DRI, DRL, DRA, or DRC alone appropriate?
No. Sean also has other behavior problems which could be inadvertently reinforced by using only a DRO, DRI, or DRL procedure. His aggressive behavior is very intense, and is often accompanied by self-injury. However, his self-injury and aggression are not perfectly correlated. Therefore, using a DR procedure for his aggression could inadvertently reinforce his self-injury.

Current rate of the behavior:
Approximately 70 occurrences per day.

According to the data, is there a need for the decision-making process to continue from this point?
Yes.
Fig. 4. Component IV—Differential Reinforcement
depends on the frequency, duration, and function of a student's behavior. Depending on the severity of the targeted behavior, other strategies may need to be used in conjunction with differential reinforcement strategies. For example, a student who talks loudly to himself when alone would likely be reinforced with a DRO strategy. But he would also need a program to teach him more appropriate leisure activities. Teaching programs are often combined with differential reinforcement procedures because students generally need to be taught the behaviors which are reinforced through DR procedures.

If a differential reinforcement procedure is effective in reducing the targeted behavior, the decision-making process ends. If these procedures are not effective, the reinforcement's effectiveness is analyzed before the process proceeds to the final component of the EDM. In analyzing the reinforcement, teachers look at the duration of the interval between reinforcement, how reinforcing the rewards offered are, and the consistency with which the procedure is implemented. If the targeted behavior is reduced after reasessing the student's reinforcement, the decision-making process ends. If not, the process continues to its final stage: the development of a more intrusive behavior reduction procedure.

**Component V—Behavioral Reduction Through Punishment**

Having progressed through the first four components of the EDM, teachers have determined that: 1) the student has no medical conditions that may be the cause of the behavior, 2) the student is living and working in a safe, comfortable environment, 3) the student has been taught or is being taught strategies that will enable him to manipulate his own environment, and the student's curriculum consists of tasks that are challenging yet commensurate with his abilities, and 4) reinforcement for appropriate behaviors is available on a regular basis. All four of these conditions must be met before any behavior reduction strategy based on punishment is implemented. If a punishment strategy is used, all the teaching and modification strategies developed through the first four components of the EDM continue to be monitored, and are not changed in any way until teachers can determine whether the punishment strategy has any effect on the targeted behavior.

When selecting a punishment procedure, the conditions discussed in the previous chapter must be met. Just as important as those conditions in developing an effective intervention strategy, however, is the continuing analysis of what

---

3 Again, these are: a) it restricts the student’s freedom of movement; b) it restricts the student’s opportunity for acquiring positive reinforcement; c) it causes the loss of privileges which a student enjoys; d) it engages the student in behavior which may be against his will (behavior he would not engage in given the freedom to choose); e) it results in the application of a stimulus viewed as painful or unpleasant by the student.
motivates the student to display the targeted behavior. Teachers have found that the motivation for unacceptable behavior generally falls into one of four categories: 1) as a way to get attention, 2) to escape something unpleasant, 3) the behavior is intrinsically rewarding, or 4) occasionally the student does not receive adequate reinforcement for engaging in alternative behavior.\(^4\)

If the analysis from Component I indicates that the targeted behavior occurs more frequently when there is less teacher or peer interaction, the behavior may be maintained by positive reinforcement, or as a way to get attention. For example, if a student makes disruptive noises to get attention, and a teacher comes over to see why he is noisy, the teacher would be incidentally reinforcing the student’s behavior by giving him attention. Intervention strategies to reduce attention-getting behavior are those which manipulate the positive reinforcement associated with the behavior, such as extinction,\(^5\) time-out strategies, visual screening, and various token loss/earn strategies.

A behavior could also be motivated by the desire to escape. If a student made disruptive noises whenever he participated in speech therapy, his behavior would effectively exclude him from participating in speech training. Strategies that negate the efficacy of escape have had the most success in modifying behaviors motivated by the desire to escape. The student’s disruptive noises, for example, could be redirected by the teacher; the teacher could then turn the noises into sounds the student uses in speech therapy. Other intervention strategies used for escape-motivated behaviors include simple correction, positive practice overcorrection, negative practice overcorrection, and restitutionsal overcorrection.\(^6\)

If the behavior is maintained primarily by the reinforcement the behavior itself provides, as with most self-stimulatory and all compulsive behaviors, more typical punishment is usually appropriate. Aversive contingencies, such as verbal reprimands or a tap on the hands, are often effective. Visual screening, overcorrection procedures, brief restraint through temporary response interruption procedures, and occasionally contingent exercise are also used. Contingent exercise helps reduce anxiety and hyperactivity, and so is a good way to release excess energy which can drive compulsive behavior. For example, contingent exercise would be used with a student who runs around flapping his arms. Being placed on the treadmill for five minutes would give him a positive way to channel his energy, yet be a disincentive for arm flapping.

Finally, sometimes the student has been taught an appropriate alternative to the targeted behavior, but does not use it. The unacceptable behavior pro-

---

\(^4\) However, some behavior does not fall into any of these categories. Behavior motivated by fear does not. If a student has what appears to be irrational fears—one student had a fear of stairs, another was terrified of blenders and motorcycles, and a third panicked at even the slightest touch—teachers implement strategies to desensitize him. The student may be gradually introduced to what he fears, or a more intrusive flooding procedure may be more appropriate.

\(^5\) See the previous chapter for a description of each of the intervention strategies mentioned here.

\(^6\) See Chapter 6 for descriptions of these procedures.
This is the checklist for Sean in the final Component of the EDM. Sean’s teachers proceeded to this point in the EDM more than once to try to modify his behavior. So, a summary of additional strategies tried with Sean is given after the early version of the checklist below.

Behavioral Reduction Program Checklist
Component V: Development of a Behavior Reduction Procedure

As indicated by the data, is the targeted behavior maintained by positive reinforcement, or to get attention?
Yes. This was determined in Component IV. The aggression that Sean exhibits when he is asked to do something often seems to be motivated by a desire for more attention. For example, when teachers prompt him to stay in place during adaptive physical education activities, Sean will often be aggressive in order to disrupt the session and have attention focused on himself.

Intervention strategies:
Teachers will continue to use primarily gestural prompts with Sean, but if gestural prompts are not responded to, Sean will be prompted physically without teachers’ eye contact, and without any verbal command. Teachers will also use fewer prompts, so that Sean has fewer opportunities to disrupt the group.

As indicated by the data, is the behavior maintained by negative reinforcement, or the desire to escape?
Yes. This was determined in Component IV.

Intervention strategies:
A mild negative reinforcement strategy will be used. The physical prompting described above will be used to make sure Sean stays in place during adaptive physical education activities, and to make sure that he completes the trial. If he stays in place and completes the trial with or without prompting, he will receive reinforcement.

As indicated by the data, is the behavior maintained by perceptual reinforcement? In other words, is it intrinsically rewarding (self-stimulatory)?
No. If it were, Sean would show high rates of the targeted behavior when in low-demand situations. He does not.
HAVE PREVIOUS INTERVENTION STRATEGIES FROM COMPONENTS II-IV FAILED TO SIGNIFICANTLY DECREASE THE TARGETED BEHAVIOR?

Yes. The behavior remains problematic.

RESULTS OF PROGRAMMING:

Paying less attention to Sean’s aggression and using the mild negative reinforcement procedure has reduced Sean’s aggression somewhat. However, these strategies were designed to modify his aggression mainly during physical education activities, and Sean’s aggression has been occurring more frequently in other teaching sessions.

CURRENT RATE OF BEHAVIOR:

60 instances per day.

ADDITIONAL INFORMATION:

Teachers suggest that the decision-making process return to Component I. A re-analysis of Sean’s behavior is needed.

* * * * *

Sean’s teachers did begin a re-analysis of his behavior when the negative reinforcement strategy did not work. They tried more restrictive strategies. Carol Markowitz explains:

Sean was showing aggressive behavior in all prompting sessions, so we went through the EDM again. We decided to try putting a protective helmet on him so he at least would not hurt himself. We also tried putting him in time-out every time he became aggressive. That actually ended up reinforcing his aggression. His rate doubled in just a few days.

Sean began getting too big for us to work through his behavior, and the behavior was still occurring frequently. So, we began restraining his hands at his desk until he was calm. We would then continue with the task, so he was not actually allowed to escape. That worked very well. He has had several days of no aggression, and many more very low incidence days.

* * * * *

vides a more efficient means of getting what he wants. Behavior falling into this category is usually motivated by a desire to communicate. For example, a student may know how to request a break, but finds that throwing a small tantrum is easier and more effective. Interventions for this type of behavior are designed to decrease the efficiency of the targeted behavior and increase the efficiency of