Effective Use of Time-Out

Behavior Home Page
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LETTER CONCERNING USE OF TIME-OUT

Kentucky Department of Education, 2000

October 13, 2000

Dear Superintendent:

Many of you have asked us for guidance in relation to the use of time-out for students. Additionally, the department has been made aware of concerns about the improper use of time-out for students. These concerns cover issues such as leaving a student in a seclusionary time-out setting for excessive amounts of time, placing the student in a seclusionary time-out setting without proper supervision, using spaces for seclusionary time-out that are not safe, and continuing to implement time-out even after repeated use has failed to reduce the student's inappropriate behavior.

In an effort to provide assistance and address these concerns in a comprehensive manner, the Kentucky Department of Education is sending this information to school superintendents, directors of special education, principals, and parent resource centers to help promote effective policies for implementing appropriate uses of seclusionary time-out for all students. I encourage you to distribute this information to all staff that work with these students and to the parents of these students so that everyone involved can work cooperatively to ensure the student's educational success.

There are no federal or state regulations that address the use of seclusionary time-out; however, suggested below are guidelines and ideas to consider in planning for the use of seclusionary time-out with students. The information provided is based on recent research and practice in the field, guidance from the Office of Special Education Programs, United States Department of Education, and court cases on the subject.

Time-out is a procedure that involves denying a student access to all sources of reinforcement (e.g., teacher and peer attention, participation in ongoing activities) as a consequence of undesired behavior. The purpose is to reduce future occurrences of such behavior. Time-out may be implemented on three levels: (a) contingent observation; (b) exclusionary; and (c) seclusionary. Contingent observation requires the student to remain in a position to observe the group without participating or receiving reinforcement for a specified period. Exclusionary time-out denies access to reinforcement by removing a student from an ongoing activity, while seclusionary time-out removes the student from the instructional setting as a means of denying access to reinforcement. The use of all

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levels of time out, especially exclusionary or seclusionary must be premised on assurances that the student's behavior is not a reaction to ineffective instruction.

First and foremost, the use of seclusionary time-outs should only be considered as part of a continuum of interventions and strategies (e.g., teaching and rewarding positive behavior alternatives, not responding to undesired student behavior that is performed for the purpose of obtaining attention, taking away points or privileges as punishment) used with students who display inappropriate behaviors. The use of seclusionary time-out is a drastic measure that should be used as a last defense measure as part of an overall program to instruct the student in appropriate behaviors. How and when seclusionary time-out may be used with a students with disabilities should be thoroughly discussed and explained at the Admissions and Release Committee (ARC) meeting so that everyone involved with the student has a clear understanding of the topic. Use of any time-out must be documented by the ARC in the Individual Education Program (IEP) along with addressing the use of positive behavior supports. Prior to being placed in such a setting, the student, whether he or she attended the ARC, should fully understand circumstances under which he or she may be put into time-out and what to expect from the experience (e.g., length of time and expectations for release).

Prior to the use of seclusionary time-out, the school staff should have knowledge of the student's social and developmental history and any other relevant information about the student's disabilities and background. Additionally, the use of seclusionary time-out should only be used with students when data supports the reduction of the student's inappropriate behavior. The following are guidelines for implementation of effective seclusionary time-out:

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GUIDELINES FOR EFFECTIVE USE OF TIME-OUT
**(For more detailed information on the use of time-out, visit the Behavior Web Page
at http://www.state.ky.us/agencies/behave/homepage.html)**

1. **Obtain Parent/Guardian Permission to Use Time-Out.** Schools may want to consider obtaining written consent from parents or caregivers before using seclusionary time-out as an intervention. If the child has a disability, the use of any form of time-out should be a part of the IEP or 504 plan. The discussion of the time-out should include the specific procedures that will be used, including the circumstances leading to the use of time-out and its effect on the student's behavior. Communication should be made with the parents or caregivers whenever seclusionary time-out has been used as a form of intervention.

2. **Only Use Time-Out as One Component of an Extensive Array of Behavior Interventions.** Time-out, and especially seclusionary time-out, should never be used in isolation as the only behavior intervention being applied. Time-out is only one component of an effective behavior change strategy, and seclusionary time-out is near the end of the spectrum of more restrictive approaches to reducing undesired or challenging student behavior. Time-out must always be used in conjunction with an array of positive reinforcement, and time-out may be implemented on several levels, with the most restrictive version being seclusionary time-out. Procedures should be designed to teach students how to appropriately take a time-out, through role playing and modeling, with a clear understanding of what behaviors can lead to time-out and how the student can avoid this procedure. Seclusionary time-out should only be used when other less restrictive interventions have been attempted and documentation verifies they have been ineffective. Most often when other less extreme procedures are used appropriately, it is not necessary to use seclusionary time-out.

3. **Do Not Engage in Power Struggles with Students.** Forcing a student through physical means to take a seclusionary time-out should be avoided. When you engage in physical power struggles with a student, it becomes a no-win situation. It has been documented that this typically leads to an escalation of the situation and can also lead to injury of students and staff. If a student is posing physical danger to self or others, a plan of action should be in place and staff should be properly trained on its implementation.

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4. **Avoid Excessive Use of Time-Out.** Children should not be secluded in a time-out setting for more than 5-10 minutes at a time, depending on the age of the child, and never more than 15 total minutes. Repeated applications of time-out that exceed 15-minute maximum would not meet these guidelines. The appropriateness of time-out for children and youth at each end of the age spectrum (3-21) is questionable and should be avoided. The continued use of seclusionary time-out must be based on data supporting its effectiveness in reducing a student's inappropriate behavior, and if this data does not exist, the use of this procedure should not be implemented. If a student is using seclusionary time-out as a way to escape or avoid instruction as determined by a functional behavior assessment (FBA), time-out will not be effective.

5. **Never Lock a Student in a Closed Setting and Maintain a View of the Student at All Times.** Students should never be placed in a time-out setting secured with locks or latches or in a fully enclosed area that prevents staff observation and access to the student. For more details on physical design of a seclusionary time-out setting, consult the Behavior Web page.

6. **Maintain Thorough Written Records.** Detailed written records should be kept of use of seclusionary time-out, including the student's name, date, time and incident; prior interventions used, length of time-out and results.

7. **Assess When Time-Out is Not Working.** Functional behavior assessments (FBA) should be performed whenever data indicated that time-out is not effective.

I hope this information will provide assistance to staff on this topic. If additional information is needed, please contact Laura McCullough or Toyah Robey in the Division of Exceptional Children Services at (502) 564-4970.

Sincerely,

Gene Wilhoit

EFFECTIVE USE OF TIMEOUT

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Note:

The following guidelines are presented to help teachers, educators and other practitioners implement timeout procedures appropriately and effectively. These guidelines are not a comprehensive or a complete explanation of how to use timeout in a given setting. Those who are attempting to implement timeout procedures for the first time should have supervision and consultation by professionals with expertise in behavioral intervention procedures, and who have knowledge of the research literature regarding timeout.

Timeout involves removing a student from all sources of positive reinforcement, as a consequence of a specified undesired behavior. Timeout is only one option along a continuum of interventions supporting behavior change. Most teachers think that timeout involves placing the student in an isolated setting (a timeout area) for a period of time. Actually, timeout may be implemented on several alternative levels, ranging from the student taking timeout at his or her desk (contingent observation timeout) to removing the student to a separate area. Timeout is a relatively aversive and intrusive behavior reduction procedure, because it involves the removal of reinforcement and it interrupts the pupil's instructional program. However, its use may be required when the student's behavior impedes his or her learning or that of others. Behavior problems will not be positively affected by use of timeout unless it is used in the context of an appropriate program (e.g., teaching replacement behaviors, high rate of teacher reinforcement for appropriate student behavior, etc.). The age of the student is also a key factor in any decision to utilize time out. Professionals must consider whether timeout is appropriate for children and youth at both ends of the age continuum (3 - 21). Other strategies or interventions may be more effective for these individuals in supporting appropriate behavior

Objectives

You should establish a set of procedures for using timeout in your classroom including:

1. A set of classroom rules and consequences for their infraction.

2. A hierarchy of planned consequences for behavior, with timeout as one of several alternatives for consequenting misbehavior.

3. A range of timeout locations that are suited to your classroom, your pupils, and your personal classroom management plan.

4. A set of personal guidelines for deciding when to use timeout and what level of timeout to employ.

5. Written procedures for applying timeout, including:

- ❑ A warning signal, if appropriate.
- ❑ What you say to pupils when giving them a timeout.
- ❑ Decision rules regarding which level of timeout to impose, and when to go from one level to another.
- ❑ Due process procedures for obtaining administrative and parental consent to use seclusion timeout, if applicable.
- ❑ Specification of the duration of each timeout, how duration is monitored, and decision rules for varying the duration of timeout.
- ❑ Specification of desired student behavior in timeout.
- ❑ Procedures for releasing pupils from timeout.
- ❑ A data sheet for recording instances of timeout.
- ❑ Decision rules for evaluating the effectiveness of timeout with individual students.

6. Alternative interventions when it is concluded that timeout is not effective in a given instance, or in general.

7. Procedures for teaching students to take timeouts appropriately.

A professional with expertise in behavioral interventions should supervise your application of these procedures across three periodic classroom observations, using the Timeout Evaluation Checklist (see Appendix A)**.**

What factors are involved in using timeout?

1. A **warning signal** indicating that timeout is imminent if the pupil doesn't alter his/her behavior.

2. A brief **verbalized explanation** of why the student is being given a timeout if the student did not alter behavior after warning signal was given.

3. Provide **instruction** (see Appendix B) to the student in taking timeout.

4. The **location** in which timeout is taken

   - **Contingent observation** - requires the student to remain in a position to observe the group without participating or receiving reinforcement for a specified period

   - **Exclusionary** - denies access to reinforcement by removing a student from an ongoing activity

   - **Seclusionary** - removes the student from the instructional setting as a means of denying access to reinforcement

5. The **duration** of timeout

- Brief (e.g., 1-5 minutes) timeouts are as effective as longer timeouts if the student hasn't been exposed to long timeouts first.

- Durations longer than 15 minutes should not be employed.

- A **nonverbal signal** indicating the beginning and end of timeout may be used if students have been taught to respond to it.

6. Requirements for **release from timeout**.

- Completion of the specified duration of timeout.

- Appropriate behavior during timeout.

- End of 15 minute maximum duration of timeout (implement alternate intervention if timeout has not been effective at this point).

How should timeout be implemented?

1. Identify reinforcers maintaining the undesired behavior.

2. Conduct a **functional assessment** to identify the function of the target (undesired) behavior.
   - Behavior has two functions: to obtains something the student wants (e.g., teacher or peer attention), or to escape or avoid something he doesn't want (e.g., undesired task)

   - If timeout serves either of these functions, it will not have the desired effect on behavior (e.g., If the student is able to escape an undesired academic activity by going to timeout, behavior resulting in timeout will continue. Timeout also will not be effective if it provides an opportunity to engage in behavior that is self-reinforcing [e.g., self-stimulation]).

   Note: In addition to a timeout contingency, a plan should be in place to support desired replacement behaviors [see Appendix D for differential reinforcement examples].

3. Specify **in advance** the behaviors which will result in timeout.

4. Use less **intrusive behavior reduction procedures** first (i.e., differential reinforcement [see Appendix D], extinction, verbal aversives, response cost).

5. These less intrusive procedures should have been **documented as ineffective <u>before</u> timeout is used**.

6. Develop a **written statement** of how timeout is to be implemented.

7. If **seclusionary timeout** is used, the following requirements should be met:

   - The timeout room should be at least 6' x 6' or larger and based upon the age and size of the student.

   - The room should be properly lighted and ventilated.

   - The room should be free of objects and fixtures with which the student could harm himself.

   - A staff person should be able to see and hear the student in timeout **at all times**.

     - The area should **never be locked**.

       - Use of a fully enclosed area limits staff observation and access to student.

       - Confinement in a small area may lead to an escalation of student behavior.

       - At no time shall a student be placed in a locked area alone.

8. Keep **written records** (see Appendix C) of each occasion when timeout is used including:

   - Student's name and date

   - Episode resulting in timeout

   - Time of entry into and release from timeout

   - The location of timeout (contingent observation, group separation, exclusion)

   - The student's behavior in timeout

9. Always **differentially reinforce** desired student behavior in time-in environment (classroom or instructional setting). (See Appendix D)

10. **Evaluate procedures** (see Appendix A) if timeout duration exceeds 15 minutes.

11. Evaluate the effectiveness of the procedures if timeout is not having the desired impact on student behavior (collect and chart data on the frequency of the target behavior).

   Note: If timeout does not prove to be an acceptable or effective intervention the Admissions and Release Committee shall determine what interventions are to be utilized to address the behavior(s) of concern. A Functional Behavioral Assessment may be necessary, if not already undertaken, to improve upon or develop a Behavior Intervention Plan.

How may timeout be abused?

1. Timeout is overused due to lack of appropriate, proactive, instructional program.

2. The **time-in environment** (Classroom or instructional setting) is not sufficiently reinforcing (see Appendix D).

   - Should give **four times** as much positive reinforcement as reductive consequences.

   - Should have a systematic behavior support plan for teaching and reinforcing a replacement behavior that serves the same function as the undesired behavior.

3. Timeout is **applied inappropriately**.

   - Timeout is the only, or nearly the only, behavior reduction procedure used.

   - Timeout is applied too late---when the student is out of control.

   - Teacher escalates student behavior by lecturing student when in timeout.

4. The **teacher does not enforce timeout contingencies**.

   - Student is able to avoid timeout by arguing or refusing to take timeout.

   - Teacher is unable to direct physically mature students to utilize timeout if they refuse (Consider age appropriateness).

   - Teacher is inconsistent in following through with timeout after warning (i.e., Using timeout after three (3) warnings, five (5) warnings, etc.)

   - Solution is to teach students to take timeout: (see Appendix B).

- Use systematic teaching procedures (e.g., Model, role play/practice and feedback).
- Hold timeout training sessions at other occasions than when timeout is needed: reinforce successive approximations.
- If the teacher is unable or unwilling to enforce timeout, he/she should consider alternate behavior reduction procedures.

5. The effectiveness of **timeout is not evaluated**

- Use the Timeout Record (see Appendix C) to monitor the use and results of timeout. If timeout is used excessively (for example, 3 or more times a day for several consecutive days with a single student) the effectiveness of timeout needs to be evaluated and the individual behavior management plan for that student needs to be adjusted.

RECOMMENDED READINGS

Gast, D. L., and Nelson, C. M. (1977). Legal and ethical considerations for the use of timeout in special education settings. Journal of Special Education, 11, 457-467.

Nelson, C. M., and Rutherford, R. B., Jr. (1983). Timeout revisited: Guidelines for its use in special education. Exceptional Education Quarterly, 3, 56-67.

Rutherford, R. B., Jr., and Nelson, C. M. (1982). Analysis of the response-contingent timeout literature with behaviorally disordered students in classroom settings. In R. B. Rutherford, Jr. (Ed.). Severe behavior disorders of children and youth (Vol. 5). Reston, Virginia: Council for Children with Behavioral Disorders.

Twyman, J. S., Johnson, H. Buie, J. D., and Nelson, C. M. (1994). The use of a warning procedure to signal a more intrusive timeout contingency. Behavioral Disorders, 19, 243-253.

Appendix A

Time-out Evaluation Checklist

TIME OUT EVALUATION CHECKLIST
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Directions: Qualified supervisors and consultants may use this form to assess teachers' use of timeout and provide appropriate feedback. Observations should be made on at least three separate occasions (different days) and deficiencies in the application of specific procedures should be corrected with appropriate remedial activities (e.g., modeling, direct instruction, discussion, and referral to informational resources.

Teacher_____ School_____

Evaluation_____ Date_____

Criterion	EVALUATION (Deficient, Satisfactory, Excellent)	Comments and Remedial Suggestions
1. Classroom rules are appropriate and posted.		
2. Hierarchy of planned consequences is appropriate; location of time out in hierarchy is appropriate.		
3. Time out location (s) is/are appropriate.		
4. Teacher can explain decisions regarding when time out is used, and which level is employed.		
5. Written time out procedures are appropriate (evaluate each separately). • Warning signal. • Verbalized explanation to student when giving time out. • Decision rules (i.e., time out levels). • Due process procedures. • Duration of each time out, and how duration is monitored. • Desired student behavior in time out. • Procedures for release from time out. • Time out data sheet. • Decision rules for evaluating time out.		
6. Alternative interventions have been developed and are appropriate.		
7. Procedures for training pupils to take time out are appropriate and effective.		

	YES	NO
8. Teacher observed administering time out.		
9. If yes, were procedures specified above followed?		
10. If yes, did student take time out appropriately?		
11. If yes, was time out successful in controlling student behavior?		
12. If yes, was time out the most appropriate intervention?		
13. If no, was time out intervention needed, but not used?		
14. If no, was classroom management effective?		
15. If no, was alternative intervention applied effectively?		

Comments:

Appendix B

Teaching Students to Take Time-out Appropriately

TEACHING STUDENTS TO TAKE A TIME OUT APPROPRIATELY

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Note: You should not assume that students will comply with directions to take a timeout if they have not been taught how to do so. This task analysis is a generic lesson for teaching students to take timeouts. Task steps should be altered according to the characteristics and needs of individual students. Steps should be practiced systematically several times a day until each is mastered. You may use individual or small group instruction.

STEP	CRITERION
1. Imitate correct time out behavior (sitting or standing quietly in designated area), for 10 seconds following demonstration by teacher.	5 consecutive correct trials for 3 consecutive days.
2. Demonstrate correct time out behavior for 10 seconds following teacher instruction during practice sessions.	Same as above.
3. Demonstrate correct time out behavior for 30 seconds following teacher instruction during practice sessions.	Same as above.
4. Same as Step 3, but time out duration is 2 minutes.	Same as above.
5. Take a 5-minute time out within 10 seconds, when instructed to do so by a teacher in a real time out situation.	50% of assigned time outs taken correctly over 5 consecutive days.
6. Same as Step 5.	100% of assigned time outs taken correctly over 5 consecutive days.
7. Take a 5-minute time out within 10 seconds, demonstrating appropriate time out behavior, when instructed to do so by general education teacher. Note: Provide practice steps 1 - 5 if criterion is not met.	50% of assigned time outs taken correctly over 5 consecutive days.
8. Same as Step 7.	100% of assigned time outs correctly taken over 5 consecutive days.

Comments:

Appendix C

Time-out Record

TIME OUT RECORD

Describe the levels of time out used in your classroom (e.g., Contingent observation).

1.
2.
3.

Record for each episode of time out.

Date	Student	Observed Behavior	Time Out Level #	Time In	Time Out	By Whom	Outcome

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Date	Student	Observed Behavior	Time Out Level #	Time In	Time Out	By Whom	Outcome

Appendix D

Differential Reinforcement Example

Webber, J. & Scheuermann, B. (1991, Fall). Accentuate the positive: Eliminate
the negative! Teaching Exceptional Children, 24(1), 13-19.
Copyright, 1991, The Council for Exceptional Children
(http://www.cec.sped.org/)

Managing Behavior Problems: Accentuate the Positive… Eliminate the Negative!

Jo Webber and Brenda Scheuermann

A former student called me yesterday.

"I need help. I'm teaching math to sixth, seventh, and eighth graders in a resource room, and my class is out of control. I've got Michael, Selina, Ryan, and Chris--All known for causing trouble--plus five others in this class. Everyone feels sorry for me. I thought teaching was supposed to be fun."

"What have you done with your applied behavioral analysis textbook?" I asked with amusement.

"I sold it," she said, sighing.

"OK" I said in my best professional voice. "Tell me what's going on."

"I've tried sending them to the office, calling their parents, giving them detention, and making them sit in the hall. Nothing seems to work. The principal and the parents just scold them and the kids are just as disruptive the next day. One of them called me a mean, mean teacher yesterday… and I feel like one."

As teachers try to maintain control in their classrooms, they often react initially by punishing undesired behavior (Morgan & Jenson, 1988). Teachers prefer punishment as a means to reduce undesirable behavior because they are reinforced by the immediate nature of its effects (Alberto & Troutman, 1986).

However, punishment often fails to create attentive, quiet, compliant students. By definition, it does not teach desirable behavior. Scolding, ridicule, lowering of a grade, loss of privileges, temporary removal from class, suspension, or corporal punishment

will not guarantee that a student will come to class on time, bring the necessary materials, or begin doing satisfactory schoolwork.

One reason for this failure might be that too often teachers *only* focus on reducing the inappropriate student behavior rather than actively teaching and reinforcing appropriate behavior (Winett & Winkler, 1972). They concentrate on what the student is *not* to do, as opposed to emphasizing which desired behaviors they want the student to exhibit instead.

To remedy this requires a shift in the traditional mindset: Rather than concentrating on the undesired behavior, the teacher should look for a positive alternative that will result in reinforcement for the student. This involves deciding what the student needs to do that she is not doing at the moment, then teaching it and reinforcing it. This positive approach to reducing misbehavior is an easy and effective strategy know as *differential reinforcement* or *positive reductive procedures* (Deitz & Repp, 1983). Differential reinforcement, in this context, means that positive behaviors receive reinforcement. The behavior targeted for reduction is not directly addressed. The result is an increase in more appropriate alternative behaviors and a decrease in the undesired behavior. It is an instructionally sound technique and has been used successfully in clinics and classrooms to reduce a variety of behaviors such as aggressive behavior (Knapczyk, 19988; Poling & Ryan, 1982); out-of-seat behavior and talking (Ayllon & Roberts, 1974); in-class sleeping, talk-outs, and disruptions (Allen, Gottselig, & Boylan, 1982; Deitz, Repp, & Deitz, 1976); inappropriate speech (Barton, 1970); and hyperactivity (Patterson, 1965; Twardosz & Sajwaj, 1972).

> "I'm sorry you feel like a mean teacher. Punishment has a way of putting you in that role. Tell me about your reinforcement program."

" I let students work on the computer or have free time if they finish their work, and if everyone is cooperative all week, we have popcorn on Friday."

"Technically, you are using differential reinforcement, which is an effective technique, but you need to 'fine tune' this system so it will work for you. Tell me more about Michael."

"He's a bully. He's big and loud and is always picking fights with the other kids. He was in four fights today!"

"Why don't you try a DRO technique with him?"

"DRO?"

Differential Reinforcement of Zero Rates of Behaviors (DRO)

DRO means that the student is reinforced for periods of time during which no inappropriate behavior is displayed. For example, if the goal is to reduce fighting, the student may be reinforced for every hour that he or she is not in a fight. Or, if the goal is to reduce cursing in the classroom, the teacher may reinforce the student for every 10 minutes of refraining from cursing. The frequency of the inappropriate behavior before the treatment intervention begins will determine the initial criterion for reinforcement. (During baseline, the teacher counts how much time elapses between instances of the target behavior, the average of all these times becomes the initial criterion.) The time intervals with "zero undesired behavior" will gradually be increased until the student's behavior approximates that of an average peer in a regular classroom setting.

For example, the teacher said Michael fights on an average of three times per 6-hour school day. Therefore, he might be reinforced for every 2 hours (6 divided by 3) that he does not fight. At the end of each 2-hour segment that he does not fight, Michael can

give himself a point on his point card. His points can be turned in daily or weekly for classroom rewards.

When using differential reinforcement, it is usually recommended that any instances of the targeted inappropriate behavior be ignored. However, this is not always possible with severe behaviors such as fighting. Punishment for the inappropriate behavior may be necessary if the behavior is dangerous or if it is one that spreads quickly to other students (e.g., running in the school, horseplay, or calling out). However, the teacher should try a DRO procedure before considering punishment. DRO can work well with verbal aggression (e.g., name calling, threats), talking back, destruction of property, and tantrums.

"Well, I can see how DRO might work for Michael, but I don't see how it would work for Ryan. He refuses to do anything that I ask him to do. He doesn't work, doesn't pay attention, doesn't look at me, and doesn't answer my questions. He's already doing zero behavior--good behavior, that is."

"Why don't you try DRI with Ryan?"

"I feel like I'm taking one of your tests! What's DRI?"

Differential Reinforcement of Incompatible Behaviors (DRI)

With this strategy, the teacher reinforces a specific student behavior (e.g., following directions) that is impossible for the student to perform at the same time as the behavior targeted for reduction (e.g., noncompliance). For instance, if a teacher wishes to reduce name-calling behavior, then calling people by their appropriate names would be systematically reinforced. The student cannot both call people by their appropriate names and name call at the same time. Thus, as calling people by their correct names increases in frequency, name-calling behavior automatically becomes less frequent. As

another example, if a teacher wishes to reduce talking, it would be wise to heavily reinforce instances when the student's mouth is closed. The two behaviors (mouth closed and talking) are incompatible.

The behaviors chosen (the one targeted for reduction and the alternate behavior) should cover 90% to 100% of the possible alternative behaviors (Donnellan, LaVigna, Negri-Shoultz, & Fassbender, 1988). This means that the child will have no other choices for behavior. For example, the child is either off task, quiet or talking, in seat or out of seat, on task. There are few other choices. It would not work well to reinforce "hands-to-self" behavior in order to decrease off-task behavior. The student can keep hands to self and sleep, which would be off task, and still be eligible for reinforcement. Likewise, it would not work well to reinforce task completion to decrease noncompliance. The student could finish the task but not follow the teacher's directions in doing so (noncompliance), the task could be handed in late or done in pencil instead of pen. The student would still be eligible for reinforcement even though the noncompliance was not reduced. If the student can be doing what is asked while still engaging in the undesirable behavior, another incompatible behavior should be chosen for reinforcement. Table 1 provides some examples of appropriate incompatible behaviors.

Table 1

Positive Incompatible Alternatives for Common Classroom Behavior Problems

UNDESIRED BEHAVIOR	POSITIVE INCOMPATIBLE ALTERNATIVE
Talking back	Positive response such as "Yes Sir" or "OK" or "I understand"; or acceptable questions such as "May I ask you a question about that?" or "May I tell you my side?"

Cursing	Acceptable exclamations such as "Darn," "Shucks."
Being off-task	Any on-task behavior: looking at book, writing, looking at teacher, etc.
Being out of seat	Sitting in seat (bottom on chair, with body in upright position).
Noncompliance	Following directions within ___ seconds (time limit will depend upon age of student); following directions by second time direction is given.
Talking out	Raising hand and waiting to be called on.
Turning in messy papers	No marks other than answers; no more than ____ erasures; no more than three folds or creases.
Hitting, pinching, kicking, pushing/shoving	Using verbal expression of anger; pounding fist into hand; sitting or standing next to other students without touching them.
Tardiness	Being in seat when bell rings (or by desired time).
Self-injurious or self-stimulatory behaviors	Sitting with hands on desk or in lap; hands not touching any part of body; head up and not touching anything (desk, shoulder, etc.)
Inappropriate use of materials	Holding/using materials appropriately (e.g., writing only on appropriate paper, etc.)

"Oh, I see… I can reinforce Ryan for following directions and probably reduce his refusal to do what I say. Maybe I can use a point system with Ryan, also, where he gets a point for every direction that he follows. I think I may need to prompt Ryan at first so he will know when I'm giving a direction. I think this might work!"

"Let's talk about what we can do about Selina," I said, encouraged.

"Selina wants to dominate the class and shout out things when others are trying to talk. Her comments are often off task, and it really disrupts interactions."

"Well, you could use DRO or DRI, but it sounds like a habit and it might be easier for Selina to reduce the behavior gradually, rather than all at once."

"Let me guess--another differential reinforcement procedure?"

Differential Reinforcement of Lower Rates of Behavior (DRL)

For behaviors that do not need to be reduced quickly or reduced to zero occurrence (e.g., calling out for help), or for behaviors that are strong habits (e.g., talk-outs, burping, teeth grinding, self-stimulation), DRL may be the technique of choice. A teacher using this strategy would reinforce progressively lower rates of a behavior. For instance, if a teacher can tolerate some call-outs, then she can reinforce the student for progressively reducing the number of times that she calls out without permission. Or if a teacher wants to reduce teeth grinding, but does not need this to change immediately, he could reinforce the student for grinding his teeth no more than four times during a specific time period. When the student is successful at this level, reinforcement would next be contingent upon grinding teeth no more than three times. This criterion would gradually be lowered until the behavior is at an acceptable level.

The initial criterion for reinforcement is set by determining the average frequency or duration of the behavior before starting the procedure. If a student talks out on an average of four times per period, then setting the initial reinforcement criterion at four or less would be appropriate. The criterion for reinforcement is gradually lowered by reasonable intervals until an acceptable level of behavior is achieved. By allowing the student to change a habitual behavior gradually, rather than expecting immediate

cessation, DRL helps ensure success as the student progresses toward the target level. Dangerous behaviors or contagious behaviors would not be appropriate for reduction with a DRL technique.

"Well, I can see that I could individualize my point system for each student. I could let Selina earn a point for every hour that she has fewer than eight call-outs. If she is successful this week, then next week it will have to be fewer than six call-outs until she has an average of only one call-out per hour. But what about Chris? He's a different one. He acts very immature, and anytime something does not go his way he cries and whines and stomps around the room. Even though the other kids make fun of him, he continues the behavior."

"You could use DRO, but it sounds like he needs to learn how to express his frustration. There is another technique that might work for him called DRC."

Differential Reinforcement of Communicative Behaviors (DRC)

Recent literature (Sasso & Riemers, 1988) has proposed that some students may be acting inappropriately in order to communicate something. An analysis of aggressive and noncompliant behavior may reveal that the student is simply attempting to say, "Stop, I don't want to do it," or "I don't like you, " or "I don't know the answer," or "I'm frustrated." Many students have not learned how to say these things directly. If this is the case, then teaching an appropriate alternative method for the student to communicate those thoughts and feelings will result in a reduction of the aggressive and noncompliant behavior.

The teacher's task is to analyze the student's inappropriate behavior and attempt to find communicative intent in it. If the teacher suspects communicative intent, then an appropriate communication strategy needs to be determined. For example, how should

students communicate anger? Students with good language skills may learn to write about the anger or say "Being pushed makes me angry." Lower-functioning students may need to draw a picture of the emotion or use words or sign language. If the teacher demonstrates an alternative style of communication and heavily reinforces the student when appropriate communication is used, aggressive and noncompliant behaviors that have communicative intent should be reduced.

"So I could give Chris a point each time he says "I'm frustrated" with no crying, whining, or stomping. Maybe I could also give him points for each day that he has zero tantrums. That's DRO isn't it?"

"Yes, good! You can combine any of these techniques to make a more powerful intervention. By George, I think you've got it!

Advantages of Differential Reinforcement

Differential reinforcement has many advantages. Among them are the following:

1. If the differential reinforcement system reduces the inappropriate behavior, the teacher can avoid punishment and its side effects. Most teachers are not effective punishers. They do not punish consistently, unemotionally, or contingently. Moreover, many students in special education have built up resistance to commonly available punishers such as scolding, being sent to the office, or corporal punishment. They require a much stronger punisher that may not be available to school personnel. Use of differential reinforcement can also help the teacher forestall the rage, avoidance, and anger reactions that often accompany the delivery of punishment.

2. Differential reinforcement is a powerful intervention strategy that will effectively reduce the majority of inappropriate behaviors without the concurrent use of

punishment. Punishment should be used only after differential reinforcement techniques alone have been found to be inadequate. This may be true in the case of aggressive, dangerous, destructive, self-injurious, or extremely disruptive behaviors which, because of their severity, need to be extinguished immediately.

3. Use of differential reinforcement will help ensure that the teacher is teaching prosocial behavior because the teacher must specify a positive goal, assess the student's current skill level relevant to that goal, provide direct instruction in deficient skill areas, and give the student feedback (e.g., reinforcement) regarding progress toward the goal.

4. Differential reinforcement can be conducted in a variety of settings by a variety of people, thus adding to effective generalization.

5. Differential reinforcement allows the teacher to display and demonstrate prosocial behavior (e.g., praising someone's efforts and giving rewards) as opposed to antisocial behavior (e.g., hurting someone).

6. Once a behavior is targeted for reinforcement, individualized education program (IEP) goals and objectives are easily written in positive terms.

7. Differential reinforcement tends to enhance the student-teacher relationship by setting up positive interactions between the target student and the teacher. It creates a situation in which the teacher delivers positive instead of (or in addition to) negative consequences.

Steps for Implementation

The following steps are recommended for classroom implementation.

Identify the behavior to be reduced or eliminated. This is generally the easiest step. However, a word of caution: Do not try to change every undesired behavior that a

student exhibits. Start with the behavior this is most intolerable in the school setting or the behavior that is causing the most problems for the student.

Identify positive alternatives to the undesired behavior. What would you like for the student to do instead? Provide the student with an alternative behavior that can be reinforced. For example, if the student is talking out without permission, reinforce only when he or she raises a hand to speak; if the student is frequently aggressive, reinforce during the times when he or she is not aggressive. If a student calls out frequently provide reinforcement for calling out less often. If a student acts out feelings, model an appropriate way to communicate feelings.

Select a system of differential reinforcement. Use DRL for behaviors that can be reduced gradually; DRO for behaviors that need to be reduced to zero levels; DRI to teach a specific positive behavior as an alternative to the undesirable behavior; and DRC when the goal is to increase functional communication skills. Table 2 lists recommended differential reinforcement systems for common behavior problems.

Table 2

Positive Incompatible Alternatives for Common Classroom Behavior Problems

PROBLEM BEHAVIOR	DIFFERENTIAL REINFORCEMENT TECHNIQUE
Talking back	Reinforce each 15- or 30-minute or 1-hour period with no talking back (DRO). Or reinforce each time that the student responds to the teacher without talking back (DRI).
Causing property damage	For each day that no property is damaged, reinforce the student and/or the class (DRO)
Cursing	Reinforce each 15- or 30-minute or 1-hour period with no cursing (DRO). Reinforce use of appropriate adjectives and

exclamations (DRC).

Being off task	Reinforce each 5-, 10-, 15-, or 30-minute period of continuous on-task behavior (DRI).
Failing to complete tasks	Reinforce each task that is completed, half completed, or started (DRI).
Tardiness	Reinforce each day or period that the student is on time (DRI).
Being out of seat	Reinforce 5-, 10-, 15-, or 30-minute periods of continuous in-seat behavior (DRI).
Fighting	Reinforce the student each time he or she interacts appropriately with another student (DRI). Or reinforce the student each hour that he or she does not tease, pinch, etc.(DRO).
Noncompliance	Reinforce the student for each direction that he or she follows with 5 seconds (DRI). The schedule can be thinned to every 3 directions followed, 8, 10, etc.
Talking out	Reinforce the student each time that he or she raises a hand and waits to be called on (DRI). Thin the schedule to 3, 5,10 times, etc. Or reinforce progressively less talking out (DRL).

Set up a reinforcement system. Pick reinforcers appropriate for the student's age and grade level. The reinforcers can be tangible reinforcers of privileges. Use school-related (natural) reinforcers whenever possible. Social reinforcers (smiles, praise, etc.) should always be used in conjunction with other reinforcers so that other renforcers can be faded eventually. Survey the students, watch them, or ask other teachers and parents for appropriate reinforcer ideas. Make a list of at least 10 possible reinforcers.

Token reinforcement systems are a convenient way to reinforce systematically in the classroom. Checkmarks, stars, stamps, stickers, or initials can be exchanged for the reinforcers on the list. Tokens make it possible to give heavy reinforcement initially without disrupting lessons and without the danger of satiation. For more information on token systems see Alberto and Troutman (1986); Ayllon and Azrin (1968); Kazdin (1977); Polloway and Polloway (1979); and Stainback, Payne, Stainback, and Payne (1973).

Set a success criterion. Determine the **final** criterion for the desired behavior. For example, how long must the student stay seated? How many tasks must the student complete each day? How long must the student display no teasing? The success criterion will vary according to the age and developmental level of the child, the setting in which the child must operate, and the behavior. One way to decide on a reasonable criterion is to determine how much or how long the same behavior is exhibited by an average student of the same age in a relevant setting. For example, if most students stay in their seats for an average of 40 minutes continuously, then do not stop the reinforcement strategy until this criterion is met by the student and the behavior is exhibited at this level over a substantial period of time. Be specific about setting a success criterion. It should not be decided haphazardly, but should be based on what the student needs to display to be successful in the mainstream setting. Begin by reinforcing small increments or short periods of time, and gradually lengthen these time periods or increase the amount of behavior required for reinforcement.

Evaluate results. Count both the inappropriate student behavior and the alternative behavior that had been reinforced. Simply saying that the student is acting "better" does not provide the information necessary for further planning. If either behavior is not progressing in the desired direction, check the intervention for problems.

Potential Problems

The following are possible reasons why the differential reinforcement system is not working. Check these items before and during your intervention.

1. The target behavior has not been specified or assessed well. Pick one behavior at first and count it. Also, analyze it for communicative intent.

2. The reinforcers are not as rewarding to the student and/or are less powerful than the reinforcers the student is receiving for inappropriate behavior (e.g., teacher or peer attention, avoiding tasks, etc.)

3. The reinforcers are not delivered often enough for the student to recognize the value of exhibiting the desired behavior, or they are delivered so often that they cause satiation.

4. The reinforcers are not delivered consistently and contingently. Do not just give reinforcers when you feel like it, or stop the strategy because it "takes too much time." If the strategy is working, do not stop it until the success criterion is met.

5. The alternate behavior is not one that is achievable by the student. If the student does not know how to perform the behavior, then it should be taught using direct instruction and prompting.

6. The reinforcement schedule is thinned too slowly. Fade prompts and thin the reinforcement schedule as the student is successful at each stage. The goal is to eventually get to the point where an intermittent schedule of naturally occurring reinforcers will maintain unprompted behavior.

7. Generalization of the behavior in other settings has not been specifically addressed. Generalization should be taught before instruction is stopped. (See Alberto & Troutman, 1986, or Morgan & Jenson, 1988, for methods of generalization training.)

8. Instruction in new, appropriate behaviors is not continued. When the student has mastered one new appropriate behavior, teach another one. In this way, the student's access to reinforcers is increased. Furthermore, as the student masters more appropriate behaviors, fewer inappropriate behaviors will be displayed.

Summary

Differential reinforcement is a positive, relatively easy, and effective method of reducing inappropriate behavior by reinforcing positive alternative to the undesired behavior. It requires a shift from concentration on what the student **needs to stop** to focusing on what the student **needs to do** instead. Differential reinforcement may be used alone, or, if necessary, in conjunction with punishment if the undesired behavior is extremely violent, dangerous, self-injurious, or destructive.

Differential reinforcement, like any other good behavior management system, places certain requirements on teachers if it is to work. The teacher must be consistent in delivering the reinforcers for the targeted desired behavior. It often is not easy to maintain this level of consistency, and it requires a high degree of commitment on the part of the teacher. However, the rewards resulting from this commitment are great. Time spent administering a system of differential reinforcement is probably less than that which is already being expended in dealing with inappropriate behavior, and the returns are far greater. It not only reduces inappropriate behavior, it teaches and reinforces appropriate behavior. Differential reinforcement is well worth the time and effort it involves.

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