

AN EFFECTIVE GROUP-BASED DURATION CONTINGENCY FOR CLASSROOM MANAGEMENT

Marcea L. Pennypacker
South Metro Psychoeducational Center

H. S. Pennypacker
University of Florida

There is increasing emphasis within the Precision Teaching movement on the use of the Standard Behavior Chart to display children's academic progress in the form of learning pictures. However, there is also a set of important functional relations between many requisite social response classes (such as orderly transition from activity to activity) and the opportunity to record and enjoy growth during highly structured timings. The Chart is equally useful as a tool in managing the classroom environment in ways that enhance and support development of such socially functional responses. For example, in this study the convention for charting measures of duration was used to monitor a group contingency applied to a class of six students who initially had difficulty making the transition from a period of individual activity to a group activity.

Method

Students and Setting The six students involved in this demonstration ranged in age from 7 to 8 years old, were from low to middle socioeconomic homes, and had been classified as severely emotionally disturbed as a result of either psychological or psychiatric evaluation. They were assigned to a self-contained Behavior Disorders class managed entirely by the first author (MP) and one support therapist.

The daily classroom routine consisted of 15 activities, each of 15 to 20 minutes duration. One activity, known as Center Time, was devoted to individual participation by the students in various learning centers located around the room. Following this activity was Group Time, which required the students to assemble and participate as a group in a designated area of the room. The daily transition from the first of these activities to the second had become lengthy and usually disruptive, often requiring both therapists to intervene verbally and/or physically to achieve behavioral redirection. Such intervention, of course, carries the risk of reinforcing the undesired behavior, especially if physical contact is involved.

Procedure Baseline data were collected for one week prior to imposition of any contingencies. The lead therapist (MP) announced each day when it was time to clean up for Group Time. With the announcement a timer was started; it was stopped when all the children were seated at their desks in the Group Time area. Thus, a transition duration was obtained daily.

On the fifth day the class was informed of the timing procedure and its results. A discussion was held and agreement was reached that a reduction of this time to 1 1/2 minutes would merit a special activity or treat. Various suggestions were offered by the students. These suggestions were listed on the chalkboard, and a vote was taken. The class selected a special snack (other than the routine juice and cookies) for Snack Time as the consequence most worth working for. Thus was the following arrangement cemented: On each day that the entire class cleaned up and moved from Center Time to Group Time in 1 1/2 minutes or less, they would receive something special during Snack Time.

Each day of the second phase the lead therapist would announce the beginning of the transition time and mention the special snack available for that day (potato chips, brownies, oranges, etc.). She then said, "Go" and started timing. At the end of 1 minute she said, "Thirty seconds to go." In addition, as each student completed the transition, she announced it to the class. For example: "Sam is ready. He has cleaned up his center and is sitting at his desk." Upon completion of the transition, the elapsed time was announced.

The procedure during the third phase was identical to that of the second, except the allowable duration was reduced to 1 minute, and the 30-second warning came after the first 30 seconds of timing. This phase was conducted in an effort to establish a limiting value for the time involved in the contingency. We suspect that there is some optimal frequency for the composite behavior involved in transition. Attempts to drive the frequency higher may not only destroy the quality (centers left in a mess, etc.), but may lead to physical injury due to running, colliding, etc.

Results and Discussion

Chart 1 displays the daily duration measures obtained during the three phases of this study. The announcement of each phase change brought compliance prior to the first contact with the special snack. This initial step-up from phase to phase may be due to the earlier establishment of consistent behavior management practices in the classroom.

Of particular interest is the change in variability (daily bounce) from phase to phase. Table 1 shows the geometric mean, total bounce, and kappa values (Johnston & Pennypacker, 1980) of the duration measures for each of the three phases.

Table 1

Descriptive Statistics for each
of the Three Phases

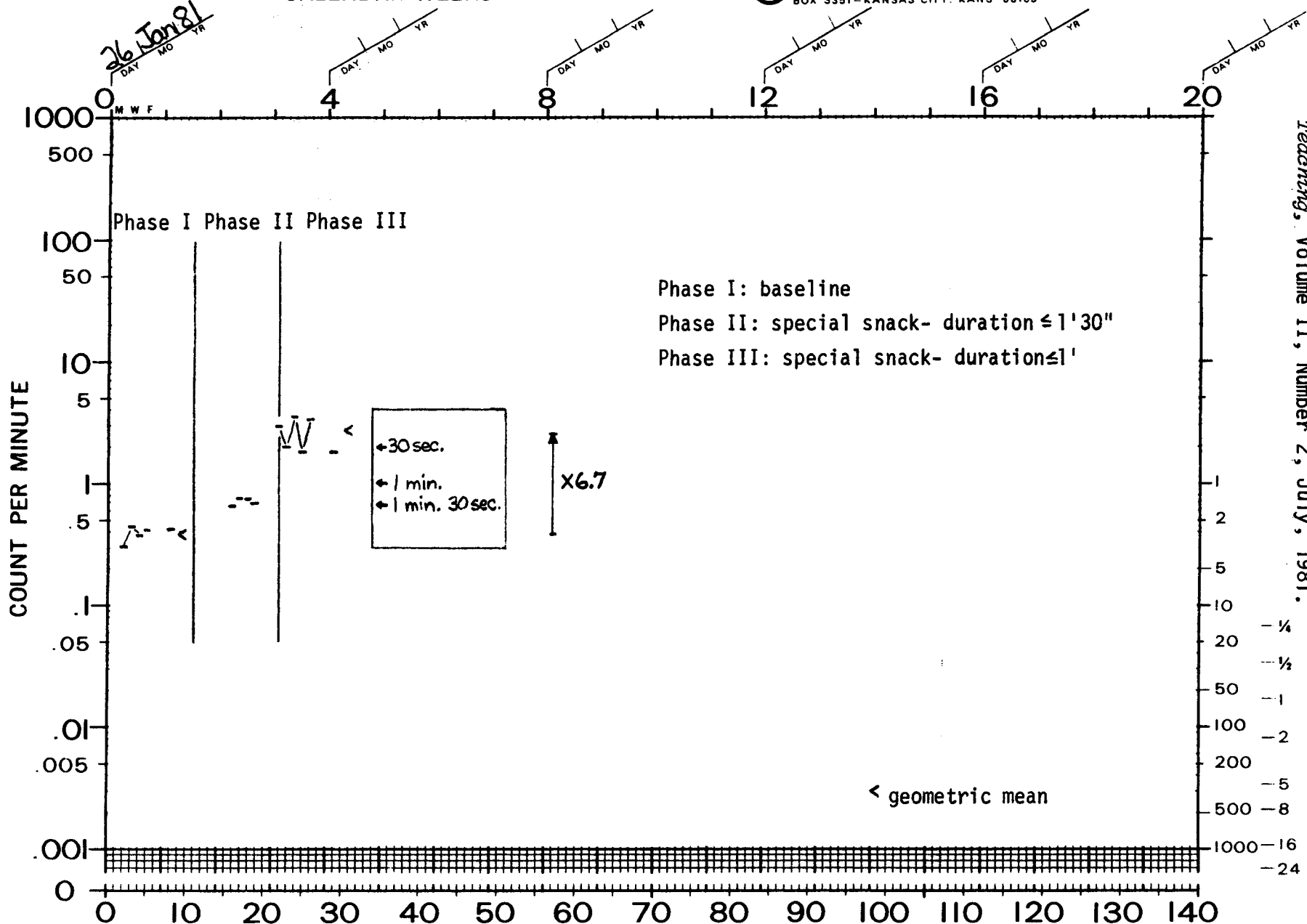
	<u>Phase I</u>	<u>Phase II</u>	<u>Phase III</u>
Geometric Mean	.39	.66	2.63
Total Bounce	x1.57	x1.17	x2.43
Kappa	1.273	1.088	1.576

Regardless of the index of variability selected, it is clear that the performance of the class became substantially more variable in Phase III, during which the 1-minute contingency was in effect. In fact, the students attempted to beat the 30-second warning signal and, as the chart shows, were successful on 3 of the 6 days the contingency was in effect. Thus, some value between 30 seconds and 1 minute probably represents a realistic ceiling or limiting value for this performance by this group in this situation.

In this study, a simple, direct contingency produced a x6.7 overall increment in a socially appropriate class of behavior. It also induced an increase in day-to-day variability, leading one to question the generality

CALENDAR WEEKS

26 Jan 81
 DAY MO YR



Pennypacker, Marcea and Pennypacker, H.S. An effective group-based duration contingency for classroom management. *Journal of Precision Teaching*, Volume II, Number 2, July, 1981.

Chart 1. Duration of transition from center time to group time.

H. Pennypacker		M. Pennypacker		SUCCESSIVE CALENDAR DAYS		class(n=6)	7-8	duration of	
SUPERVISOR	ADVISER	MANAGER				BEHAVIOR	AGE	LABEL	COUNTED
South Metro Psychoeducational Center Atlanta, Georgia						transition from center time to group time			
DEPOSITOR	AGENCY		TIMER	COUNTER	CHARTER				

20

of this effect to other classes of complex social behavior. It may be, for example, that children described as having behavior disorders would benefit from the initial use of any contingencies designed to accelerate cooperative social responding. Thereafter, differential consequence of increasingly appropriate elements in the higher frequency repertoire could lead to rapid acquisition of adaptive social behavior and a corresponding decrease in the frequency with which they are described as "disordered".

REFERENCE

Johnston, J.M. and Pennypacker, H.S. Strategies and Tactics of Human Behavioral Research. Hillsdale, New Jersey: Lawrence Erlbaum Associates, 1980.

Marcea L. Pennypacker is a lead therapist at the South Metro Psychoeducational Center, Atlanta, Georgia. H.S. Pennypacker is a professor of Psychology at the University of Florida, Gainesville, Florida 32611.

STRATEGIES FOR IDENTIFYING REINFORCERS AND PUNISHERS

Carl Binder
Walter E. Fernald State School

Jim Pollard
Merrimack Education Collaborative
Jim Rast
Sunland Center

A reinforcer is an event that occurs immediately subsequent to a movement cycle and increases the frequency of that movement cycle. Similarly, a punisher is a subsequent event that decreases the frequency of a movement cycle. Strictly speaking, we cannot call an event a "reinforcer" or a "punisher" unless we have demonstrated its effects or functions relative to a measurable response. However, statements such as "we reinforced the response" commonly occur in the absence of the appropriate data. Even worse, we occasionally hear such statements as "reinforcement didn't work," which is a contradiction in terms. If a subsequent event did not increase the response frequency relative to a baseline measurement, it cannot be called a reinforcer.

All too often, psychologists, teachers, and other behavior change agents fail to identify reinforcing consequences, especially when working with the severely handicapped. Instead, they rely on such observations as "he seemed to like it," or "she ate the candy when I gave it to her." Such observations may be clues, but they are not proof that the events or substances in question are reinforcers. Unfortunately, especially in attempts to manage inappropriate behavior, we decide that procedures such as DRI (reinforcement of incompatible behaviors) will not work, and opt for other (often aversive) procedures because of an initial incorrect assumption that we have identified a reinforcing event. The problem is not that DRI didn't work. Rather, it wasn't applied -- we did not actually reinforce the incompatible responses (i.e., increase their frequency through subsequent event manipulations). Over and over again we observe failures in instruction or behavior management because of faulty assumptions concerning the function of subsequent events. We must begin to be more systematic in