The good behavior game

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Abstract

The purpose of this study was to reduce the amount of "out-of-turn-talking" in a second-year, secondary school class. The procedure entailed splitting the class of ten boys into two teams. The teams were required not to engage in the target behavior above a specified maximum limit in order to win a prize. During the Baseline period, the frequency of out-of-turn-talking was recorded for four separate classes; French, Geography, Science and Maths. The intervention phase produced a substantial reduction in the target behavior. With the return to baseline, the frequency of the target behavior increased again. These findings support the effectiveness of the good behavior game at reducing undesirable behaviors in a group setting with older children.

Key words: Multiple baseline, children, classroom, disruption, education.

Merrett and Wheldall (1978) surveyed teachers' opinions in the West Midlands borough of the United Kingdom as to what were the most troublesome classroom behaviors. Results indicated that "talking-out-of-turn" was the most troublesome behavior and that it accounted for one third of misbehavior in classrooms. When weighed against problems such as violent behavior or illiteracy, talking out of turn may not appear to be a serious problem (Axelrod, 1977). However, unsolicited talking in the classroom interferes with the work habits of co-operative students, wastes teacher time, causes aggravation to both pupils and teacher and quiet pupils are often ignored. If disruptive behavior is allowed to continue without successful intervention it can reach levels where completion of academic assignments are impeded and teaching time is spent reprimanding students.

Many teachers who are not behaviorally trained would advocate a "get tougher in the classroom" strategy to regain respect, control and authority. A study by Van Houten, Nau, Mckenzie-Keating, Sameoto and Colavecchia (1982) exemplifies this approach. They found that when verbal reprimands were delivered with eye-contact and a firm grasp of students' shoulders, a reduction in disruptive behavior was observed. However the use of such tactics when dealing with an angry six-foot, 16-year- old may be ill-advised. An alternative is to concentrate on group contingencies because of their practicality and the effective manner in which they allow the teacher to gain direct control of the class (Hall, Lund, & Jackson, 1971). Group contingencies also eliminate differential treatment of individuals and are thus both cost and time effective, a view echoed by, Wrobel and Michaelis (1968) and by Litow and Pumroy (1975).

In this paper we examine the effectiveness of 'The good behavior game' which was pioneered by Barrish, Saunders and Wolf (1969). This is an inter-dependent-group oriented

contingency system (Sulzer-Azaroff & Mayer, 1991). In this type of system, receiving reinforcement is contingent upon a specified level of group performance (e.g., the frequency of out-of-turn-talking remaining below ten instances). Interventions based on group contingencies such as the good behavior game automatically harness the valuable reinforcement of peer attention. Numerous studies have demonstrated that peer attention is a powerful reinforcer for disruptive behavior (e.g., Northup, Broussard, Jones, George, Vollmer & Herring, 1995). Since it's conception many modified versions of the good behavior game have been implemented with resounding success. Fort example, Fischbein and Wasik (1981) used it in a library setting while Saigh and Umar (1983) demonstrated the game's cross-cultural validity when they used it in an elementary school in The Sudan. Research into the 'normal' classroom has, for the most part, however, focused on the primary/junior schools (Barrish, Saunders & Wolf, 1969; Saigh & Umar, 1983; Harris & Sherman, 1973; Merrett & Wheldall, 1978; Fischbein & Wasik, 1981) with relatively few studies concentrating on secondary schools (Mc Namara & Harrop, 1979). In this study, a multiple baseline across settings was used to examine the effectiveness of the good behavior game with older children in a secondary school. The secondary school differs greatly from the primary school in that there is much less interaction between teachers and pupils as classes are continually moving from classroom to classroom, subject to subject, teacher to teacher.

Method

Participants and Setting

The project was conducted in an all male secondary school in a large town in Northern Ireland. The participants were a bottom-stream second-year class that consisted of 10 boys, all of whom were 14 years of age.

Experimental Procedures and Design

Target behavior

Two days were spent observing the class prior to the data collection phase in order to select the target behaviors. Initially two target behaviors had been selected but this was reduced to one given the very high frequency of talking out of turn and the physical limitations that this imposed on recording by a single researcher.

The dependent variable selected was the frequency of 'talking out of turn behavior' in five classes, French, Geography, Science and Mathematics, under the supervision of five different teachers. The following behaviors were classed as 'talking out of turn':

- Any verbalisations that are made in class that were not requested by the teacher.
- Any derogatory remarks, jeering or laughter at another pupil's expense.
- Any shouting at the teacher or complaining about the task allocated.
- Attempting to initiate conversation with another pupil.
- Responding to contact from another pupil.

- Verbally encouraging the misbehavior of other pupils (for example suggesting ways to annoy others).
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Procedure

The data were recorded three days a week over a seven-week period.

Baseline

All the observations were made by the researcher who sat at the back of the class. During the baseline phase, the participants were not informed as to the nature of the researcher's work.

Intervention

Before introducing the intervention the teachers were consulted about any worries that they had about being observed in class. A multiple baseline across settings was used. During the intervention phase, the 10 boys were divided into two equal teams of five and the rules of the game were explained. A poster delineated the rules of the game was displayed clearly at the front of the room during the intervention sessions only (see Table 1). The participants were then told that the team with the fewest "X's" would be deemed the "winners", but if both teams kept the "X's" below 10, then both teams would receive their

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Insert Table 1 about here

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prizes. Each individual's preferred prize was noted at the beginning of the game. This procedure was followed for all of the single classes when the intervention was used. All of the participants were asked if they fully understood the rules of the game and once all the participants were clear, the researcher made the following announcement:

> "The game will start now and end when the bell for the end of class sounds."

Prizes were distributed by the researcher at the end of the class period.

After several sessions using the game (in different classes), a new contingency was added for Geography and Science. During double classes, playing the game in the second period was contingent on playing the game successfully in the first period, without receiving a prize. Thus the boys only received one set of prizes for two sessions of the game.

Prizes

The participants were consulted as to the types of prizes that they would like and their suitability was ratified by the teachers. Initially only a choice of "fun size" chocolate bars were available. However this was insufficient for one participant and consequently a new prize in the form of "football stickers" was made available. Throughout the course of the game, prizes varied and each participant was allowed to nominate the prize of his choice.

Interobserver Reliability

Independent observations were made by a classroom aid. The interobserver reliability was calculated by dividing the smaller obtained frequency by the larger and then divided by 100 to obtain a percentage. During the baselines the percentage of agreement varied averaged 89%. During the intervention phases, the percentage of agreement was 100%.

Results and Discussion

Figure 1 illustrates the frequency of out-of-turn-talking for five different classes throughout the study. During Baseline 1, a very high frequency of the target behavior was observed across all of the classes. In the first session the frequency of out-of-turn-talking ranged from 291 in French class, 229 in Geography class, 376 in Science class, to 304 in Maths class. The trend for relatively high frequencies of out-of-turn-talking across classes remained relatively stable throughout the first baseline period.

Insert Figure 1 about here

During the intervention there was a dramatic reduction in the amount of out-of-turn-talking in each class. The frequencies for both teams were combined to give a total for the sessions. The number of instances ranged from 4 in French class, 7 in Geography class, 5 in Science class, 18 in Maths class. During double classes of Science and Geography, in the first period when no reinforcer was available, the levels of out-of-turn-talking were 7 in Geography and 10 in Science. During the second period, when reinforcement was available, the levels of out-of-turn-talking were 2 in Geography and 9 in Science. Following the return to baseline, the levels of out-of-turn-talking increased again.

The objective of this study was to examine the feasibility of using the good behavior game to reduce the frequency of out-of-turn-talking across a variety of classes with older children in a secondary school. Results showed it to be an effective and easily implemented method of reducing the target behavior. An interesting result was in relation to individual performances. One student in particular spoke out-of-turn more than the others consistently across all classes. Once the intervention was used, his talking was consistently zero! Another reflection on the power of the procedure occurred during double periods. When the opportunity to earn reinforcement in the second class of double periods of Geography and Science was made contingent on winning the game in the first class, both teams won the game in the first period and were allowed to play the game in the second period, at the end of which they received their prizes. Interestingly, despite the success of the program we were requested by the school to remove the reinforcement contingencies that had been put in place. While this decision provided an additional element to the experimental design, it is indicative of the difficulties involved in persuading teachers in the U.K. to adopt a behavioral approach in the management of classroom behaviors. Many teachers and other professionals have reservations about behavior analysis, largely as a result of a lack of appropriate training. A survey by Schwieso and Hastings (1981) indicated that most teachers' acquaintance with this discipline was limited to a few lectures during initial training. This has resulted in misrepresentations of behavior analysis (Jensen & Burgess, 1997). The continuation of these myths has prevented the dissemination of information about behavior analysis and the uptake of its procedures.

References

Axelrod, S. (1977). Behavior modification for the classroom teacher. New York: McGraw-Hill Inc.

Barrish, H.H., Saunders, M. & Wolf, M.M. (1969). Good behavior game; effects of individual contingencies for group consequences on disruptive behavior in a classroom. Journal of Applied Behavior Analysis, 2, 119-124.

Bushell, D. Jr., Wrobel, P.A. & Michaelis, M.L. (1968). Applying group contingencies to classroom study of pre-school children. Journal of Applied Behavior Analysis, 1, 55-61.

Fishbein, J.E. & Wasik, B.H. (1981). Effects of the good behavior game on disruptive library behavior. Journal of Applied Behavior Analysis, 14, 89-93.

Hall, R.V., Lund, D. & Jackson, D. (1971). Effects of teacher attention on study behavior. Journal of Applied Behavior Analysis, 4, 141-149.

Harris, V.W. & Sherman, J.A. (1973). Use and analysis of the 'good behavior game' to reduce disruptive classroom behavior. Journal of Applied Behavior Analysis, 6, 405-417.

Jensen, R. & Burgess, (1997). Mythmaking: How introductory psychology texts present B. F. Skinner's analysis of cognition. The Psychological Record, 47, 221-232.

Litow, L. & Pumroy, D.K. (1975). A brief review of classroom group-oriented contingencies. Journal of Applied Behavior Analysis, 8, 405-417.

McNamara, E., & Harrop, A. (1979). Behavior modification in secondary school : A cautionary tale. Occasional Papers of the Division of East Child Psychology of the B.P.S., 1, 139-150.

Merrett, F & Wheldall, F. (1978). Playing the game : A behavioral approach to classroom management in the junior school. Educational Review, Vol. 30, No. 1, 41-50.

Northup, J., Broussard, C., Jones, K., George, T., Vollmer, T.R. & Herring, M. (1995). The differential effects of teacher and peer attention on disruptive classroom behavior of three children with a diagnosis of ADHD. Journal of Applied Behavior Analysis , 28, 227-228.

Saigh, P.A. & Umar, A.M. (1983). The effects of a good behavior game on the disruptive behavior of Sudanese elementary school students. Journal of Applied Behavior Analysis, 16, 339-344.

Schwieso, J. & Hastings, N. (1981). The role of theory in the teaching of behaviour modification to teachers. In K. Wheldall (Ed), The behaviourist in the classroom. Educational Review Offset Publications No. l. Birmingham.

Sulzer-Azaroff, B. & Mayer, G.R. (1991). Behavior analysis for lasting change. New York: Holt, Reinhart & Winston Inc.

Van Houten, R., Nau, P.A., Mckenzie-Keating, S.E., Sameoto, D. & Colavecchia, B. (1992). An Analysis of Some Variables Influencing The Effectiveness Of Reprimands. Journal of Applied Behavior Analysis, 15, 65-83.

Table 1

The rules of the good behavior game were displayed on a poster at the front of each class during the intervention.

RULES

1. **NO SPEAKING UNLESS THE TEACHER ASKS YOU TO.**
2. **IF YOU WISH TO SPEAK, THEN RAISE YOUR HAND AND WAIT.**

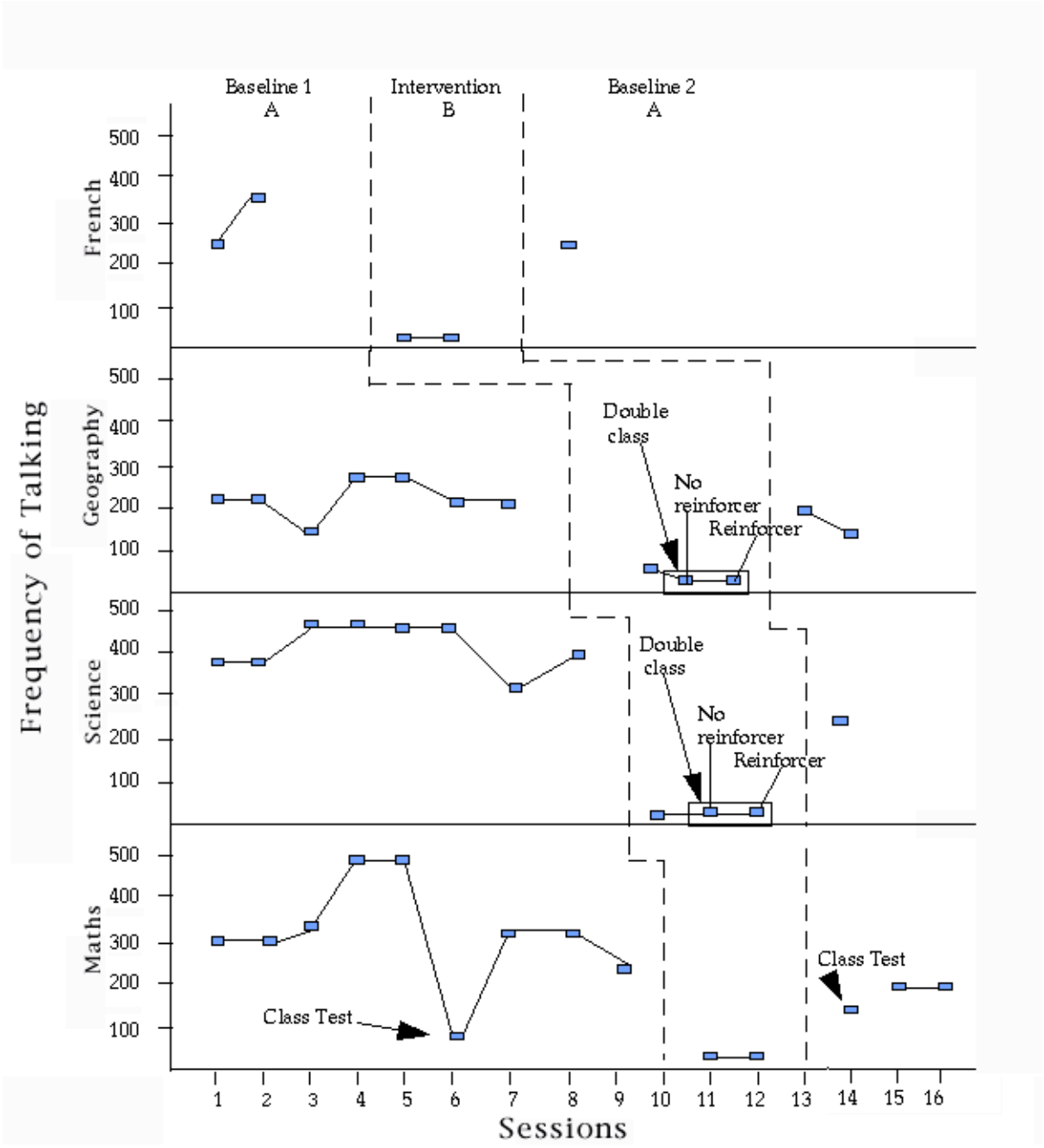
Baseline 1
A
Intervention
B
Baseline 2
A
French
Geography
Science
Maths
Frequency of Talking
500
400
300
200
100
Double class
No reinforcer
Reinforcer
Class Test
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16
Sessions

Figure Captions

Figure 1. The frequency of 'out-of-turn-talking' across five classes during each condition.

Authors' Note

This research was conducted in part fulfillment of the first author's requirements for the degree of Bachelor of Science at the University of Ulster, under the supervision of Dr. M. Keenan. Please address all correspondence to Dr. Keenan at the School of Behavioural and Communication Sciences, University of Ulster at Coleraine,Coleraine, County Londonderry, N. Ireland, BT52 1SA.