Educational Studies

The Effects of Contingent Teacher Praise, as Specified by Canter's Assertive Discipline Programme, on Children's On-task Behaviour

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SUMMARY   *The purpose of this study was to examine the effectiveness of contingent teacher praise, as specified by Canter's Assertive Discipline programme, on children's on-task behaviour. In Western Australian primary schools (and in an increasing number of British schools) Canter's programme is widely used. However, while there are many anecdotal reports of its effectiveness there is a relative absence of well controlled research studies reporting objective data. In the present study, three teachers from three separate primary schools and eight randomly selected children from each of their classes were systematically observed. Continuous data collection indicated that following training in the appropriate use of praise, as specified by Canter, all three teachers successfully increased their rates of praising. Of the 24 children, all but one evidenced increases in levels of on-task behaviour. However, observations conducted during a follow-up phase revealed reductions in the use of praise by the teachers and in some levels of on-task behaviour.*

Introduction

The amount of time spent by teachers in dealing with children who are disruptive and the stress which is said to result from discipline problems in the classroom constitute an area of concern to many educators (Wheldall & Merrett, 1988; Clapp, 1989). According to Clarizio (1970) the adequate control of a class is a prerequisite to achieving instructional objectives and to safeguarding the psychological and physical well-being of children. However, as Hillman (1981) points out,

> while everybody discusses discipline and recognises the challenges, there have been very few practical solutions advanced. (p. 7)

A number of 'educational packages' have been developed to train teachers in classroom behaviour management, the most notable from the USA being those by Redl & Wattenberg (1959), Driekurs (1968), Glasser (1969) and Kounin (1970), whilst from the UK packages have been developed by Wheldall & Merrett (1985) and Merrett & Wheldall (1988). These aforementioned training programmes have had an impact upon teaching. However, a number of problems have arisen because of distortions and misinterpretations of their basic premises. According to Canter &

Canter (1988) this has got to the point where teachers have been led to believe fallacies such as:

> ...in order to get a child to behave, all that a teacher needs to do is feed him full of smarties when he is good and ignore him when he is bad. (p. 4)

An approach to classroom behaviour management which has developed from Social Learning Theory and one which is widely used in Western Australian primary schools (and is currently being implemented in British schools) is that of Canter's Assertive Discipline programme. According to Canter (1982) Assertive Discipline is a:

> ...competency based approach to classroom and school discipline, designed to provide educators with the skills and confidence necessary to eliminate discipline as a problem in their classroom or school. (p. 2)

Teachers typically attend an Assertive Discipline workshop over six one-hour sessions (the first five sessions take place in one day) in which they are taught to develop a discipline plan. This involves examining concepts such as establishing classroom rules, the enforcement of negative consequences when rules are broken and the use of positive consequences. Each session comprises 30 min of video simulations, followed by 15 min of discussion and 15 min of worksheet activities. The sixth session (a review) is carried out 2 weeks after teachers have implemented the programme in school.

In Canter's Assertive Discipline programme, the appropriate use of verbal praise is seen as an integral component in reducing disruptive behaviour. Canter & Canter (1988) state that verbal positive reinforcement is the key to the programmes's success. By using positive, assertive responses, teachers can reduce the frequency of problem behaviour, thus saving time and energy previously spent in responding to classroom disruptions. Canter & Canter suggest that teachers should find something for which to praise every child at least once per day. Verbal praise, therefore, is recommended regularly, consistently and contingently as a positive reinforcer for increasing desired behaviours and thus reducing disruptive off-task behaviours.

Although Canter's Assertive Discipline programme is widely used in Western Australian schools there appear to have been no objective studies carried out to examine its effectiveness. Studies conducted in the USA have also comprised mainly subjective assessments. For example, Canter (1974) reports that over 20,000 teachers who have received training believe the programme has reduced behaviour problems in their classrooms by up to 80%. Hoffman (1971), in a follow-up survey of teachers who had attended an Assertive Discipline programme, found that 93% of participants considered it to be a useful prerequisite for teaching.

Of the few studies employing direct observation, Ward (1983) reported that in one primary school there was a reduction in the mean rate of students' disruptive behaviour from 17.09 disruptions per 100 students per day to a mean of 10.44 following training. In another study, McCormack (1985) observed 36 teachers and recorded the levels of off-task behaviour of 687 third grade (8-year-old) children from their (36) classrooms. The teachers were randomly assigned to a treatment

(Assertive Discipline training) ($n=18$) or a no treatment group ($n=18$). A comparison between the two groups revealed lower levels of off-task behaviour in the classes of teachers who had received training in Assertive Discipline.

However, because of the apparent absence of controlled studies reporting objective data from Western Australian primary schools there have been questions raised regarding particular aspects of Canter's assertions. Therefore, this present study attempts to examine one aspect of Canter's Assertive Discipline programme, the use of teacher verbal praise, on the levels of children's on-task behaviour.

Method

Subjects

Three teachers from three separate primary schools volunteered to take part in the study. The teachers, two males and one female, all taught children of the same age group and each had at least 7 years teaching experience. Eight children (four male and four female) representing approximately 30% of each of the participating classes were randomly selected for observation. The children's ages ranged from 8 years 7 months to 9 years 11 months.

Settings

The three participating schools each comprised eight classrooms and catered for the education of children aged from pre-primary to grade seven (12 year olds). All three schools were in low to middle level socio-economic suburbs of a large city in Western Australia and were of comparable size in regard to the number of teaching staff and number of children enrolled (i.e. between 250 and 270).

Instrumentation

A slightly modified version of the OPTIC (Observing Pupils and Teachers in Classrooms) schedule (Merrett & Wheldall, 1986) was used. OPTIC was designed for use in the observation of classroom activity where the whole class, groups or individuals are to be observed. The schedule is divided into two sections. Section A is concerned with teacher responses (positive and negative) to students' academic and social behaviours and section B is concerned with students' on-task behaviour. A complete observation takes 30 min. The observer alternates between the sections at 3-min intervals. In the present study data were collected on the teachers using section A as prescribed. However, section B (pupil on-task behaviour) was modified so that the levels of on-task behaviour of the eight randomly selected children only were recorded, rather than all children present in the classroom. Each of the eight children was observed in turn for 5 s. If the child was on task for the *whole* of the 5 s, a stick was plced in the appropriate box next to the number assigned to that child. If the child was not on task for the whole of the 5-s period, a cross was marked.

When all eight children had been observed and their on-task behaviour recorded, the observer repeated the process. It was possible to complete this three

times within each 3-min observation period giving a total of three such observations of each child (i.e. a total of 15 s). As section B was completed five times during a 30-min observation period it gave a total of 1 min, 15 s for each child and a total of 10 min for the whole group. The order in which children were observed was randomised for each separate 3-min observation.

On-task behaviour for the purpose of this study was operationally defined as:

attending to the appropriate instructional directions of the teacher. This includes orienting eyes to teacher, task or peer when appropriate and/or being actively engaged in an assigned task eg. reading from set book, writing, work related discussion with peer.

Trained observers sat in a position in the classroom which enabled them to see the eight target children and the teacher of the class at all times. Observations were conducted in Mathematics lessons in group A and English lessons in groups B and C.

In line with Merrett & Wheldall's (1986) instructions, all observations were carried out when children were engaged in academic, classroom-based, teacher-directed activities. Merrett & Wheldall (1986) report high reliability in inter-observer agreement for teacher behaviours and on-task behaviour (over 90% in both) when OPTIC is used by trained observers.

Procedure

The first author met with each teacher and the school principal to discuss any problems or concerns they might have about the study and to explain that access to all data collected would be available when the study was completed.

Baseline

Baseline data were gathered over a period of 2 weeks in classroom A (four observations), 3 weeks in classroom B (seven observations) and 4 weeks in classroom C (10 observations). Data collected revealed that none of the teachers was using praise as directed by Canter (i.e. regularly and contingently). The total number of positive verbal statements that all three teachers gave was relatively low. On average, none of the teachers delivered more than 10 instances of praise per 15 min.

Intervention

After baseline data had been collected the teachers were instructed by the first author in the appropriate use of praise, as specified in the Assertive Discipline programme, and asked to use this type of praise with the target children. That is, they were asked to deliver at least one contingent positive statement to each of the target children during each designated 30-min lesson. No instructions were given to the teachers regarding negative statements, nor was mention made of whole-class or

whole-group praise. Data were then collected on teachers' rates of positive and negative responding.

Because of the similarity of rates of positive verbal responding during the initial baseline phase (instances of verbal negative responding showed variability), teachers were randomly assigned to treatment in a multiple baseline research design across teachers and schools. The minimum period of time between the introduction of the intervention in each of the classes and schools was one week.

Follow-up

Three separate follow-up observations were carried out in the classrooms of teachers B and C 4 weeks after the intervention had concluded. Teacher A was unavailable for observations due to personal circumstances which forced him to leave the school at this time.

Prior to the commencemet of data collection three observers were trained over a period of approximately 3 h, through video sequences, in the use of the modified OPTIC schedule. A criterion of 85% was set as an acceptable level of accuracy during training and when all three observers had achieved this level the main study began. The observers also became familiar with the names of the target children and their positions in class from plans drawn up by class teachers. Children remained in the same seats whilst being observed throughout the duration of the study.

During one observation in every four the principal observer was joined by one other trained observer to carry out simultaneous recording.

Results

Inter-observer Agreement

Inter-observer agreement data were obtained for both teacher behaviour and pupil on-task behaviour separately across baseline and intervention phases. Inter-observer agreement was calculated by using the formula: number of agreements divided by number of agreements plus disagreements multiplied by 100. The mean levels of inter-observer agreement for teacher behaviour during baseline and intervention respectively were: Teacher A 100% and 85%; B 78% and 70%; C 82% and 78%. For pupil on task behaviour the mean agreement levels were: Group A 87% and 89%; B 89% and 80%; C 79% and 84%, respectively.

Teacher Behaviour

Figure 1 illustrates positive and negative responding (during each session) by all three teachers to children across all phases. Table I shows teachers' mean rates of responding (per 15 min) during baseline, intervention and follow-up phases.

Teacher A's mean rate of positive responding increased from 8.75 instances during baseline to 11.90 during intervention, an increase of 36%. Negative respond-
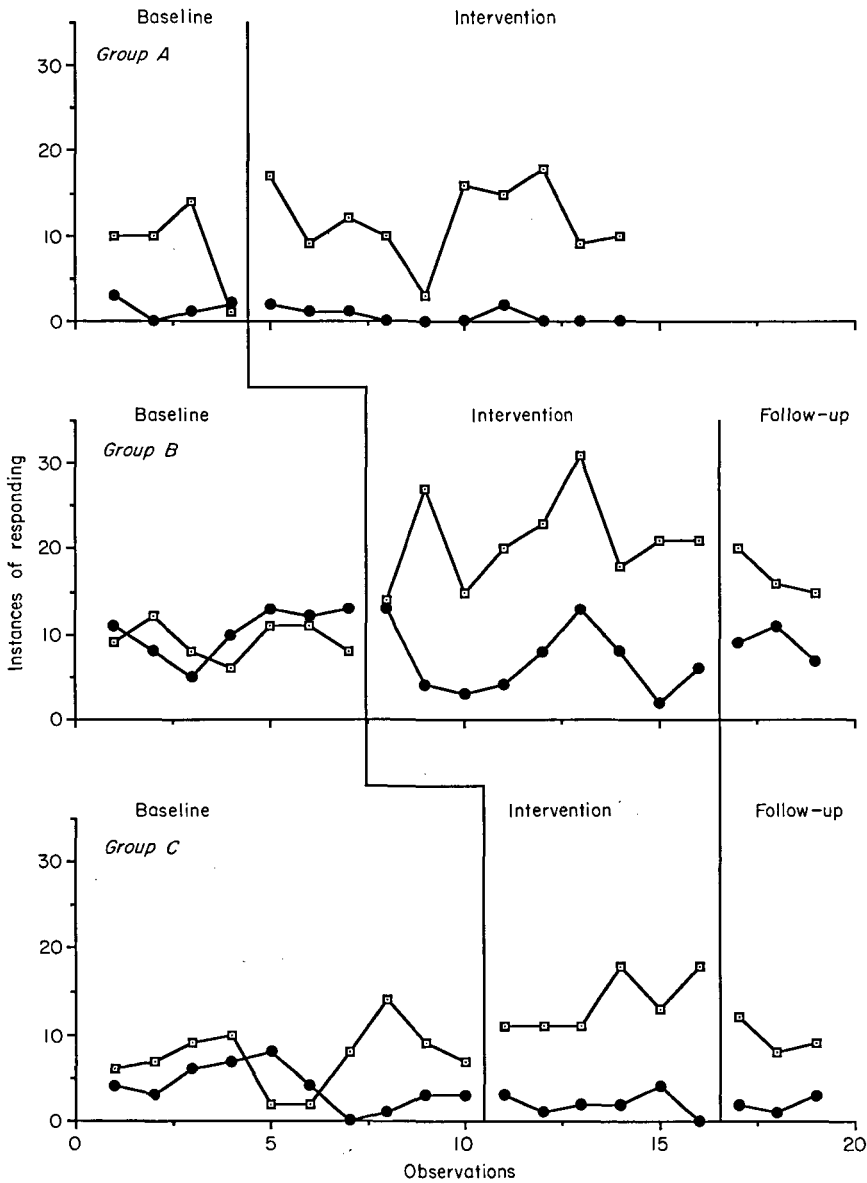
FIG. 1. Teachers' positive (□) and negative (●) responses across phases.

ing decreased by 60% from a mean rate of 1.50 instances at baseline to 0.6 during intervention.

Teacher B's mean rate of positive responding increased by 127% from 9.28 instances during baseline to an intervention mean of 21.11; at follow-up, this decreased by 19% to a mean of 17.0 instances. Conversely, teacher B's mean rate of negative responding decreased from a baseline of 10.28 instances to an intervention mean of 6.77, representing a reduction of 34%. During the follow-up phase, the mean rate of negative responding increased by 33% to 9.0 instances.

TABLE I. Mean rates of teacher positive and negative responding across phases per 15 min

	Category		
Teacher	Baseline	Intervention	Follow-up
Positive responses			
A	8.75	11.90	—
B	9.28	21.11	17.00
C	7.40	13.66	9.66
Negative responses			
A	1.50	0.60	—
B	10.28	6.77	9.00
C	3.90	2.00	2.00

Teacher C's mean rate of positive responding increased by 85% from 7.40 during baseline to an intervention mean of 13.66; at follow-up this decreased by 29% to 9.66 instances. Teacher C's mean rate of negative responding decreased from a baseline of 3.90 to 2.0, representing a reduction of 49%. During the follow-up phase the mean rate remained stable at 2.0 instances.

Children's On-task Behaviour

Figure 2 shows the percentage levels of on-task behaviour (during each session) of all groups of children across phases. Group A evidenced a 12% increase in mean level of on-task behaviour from baseline (46%) to intervention (76%). Group B evidenced at 20% increase in mean level of on-task behaviour from baseline (56%) to intervention (76%), but this decreased during follow-up to 64%. Group C evidenced a 12% increase in mean level of on-task behaviour from baseline (60%) to intervention (72%) but this decreased during follow-up to 67%.

Table II describes the mean on-task behaviour levels for individual children across all phases. As can be seen in Table II, 22 of the 24 children increased their mean level of on-task behaviour from baseline to intervention. Only one child, number 7 in group A, recorded a reduction in his/her mean rate of on-task behaviour. One child's (number 2 in group C) mean level of on-task behaviour showed no change from the baseline mean level.

To summarise, five children experienced increases in their mean level of on-task behaviour (from baseline to intervention) by between 1 and 10%; 14 children by 11 and 20% and three children by 21% or more. During the follow-up phase, four children further increased their on-task behaviour by between 1 and 20% whilst 12 children showed reductions in their mean level of on-task behaviour by between 1 and 25%. Eight students had no follow-up means with which to make comparisons.
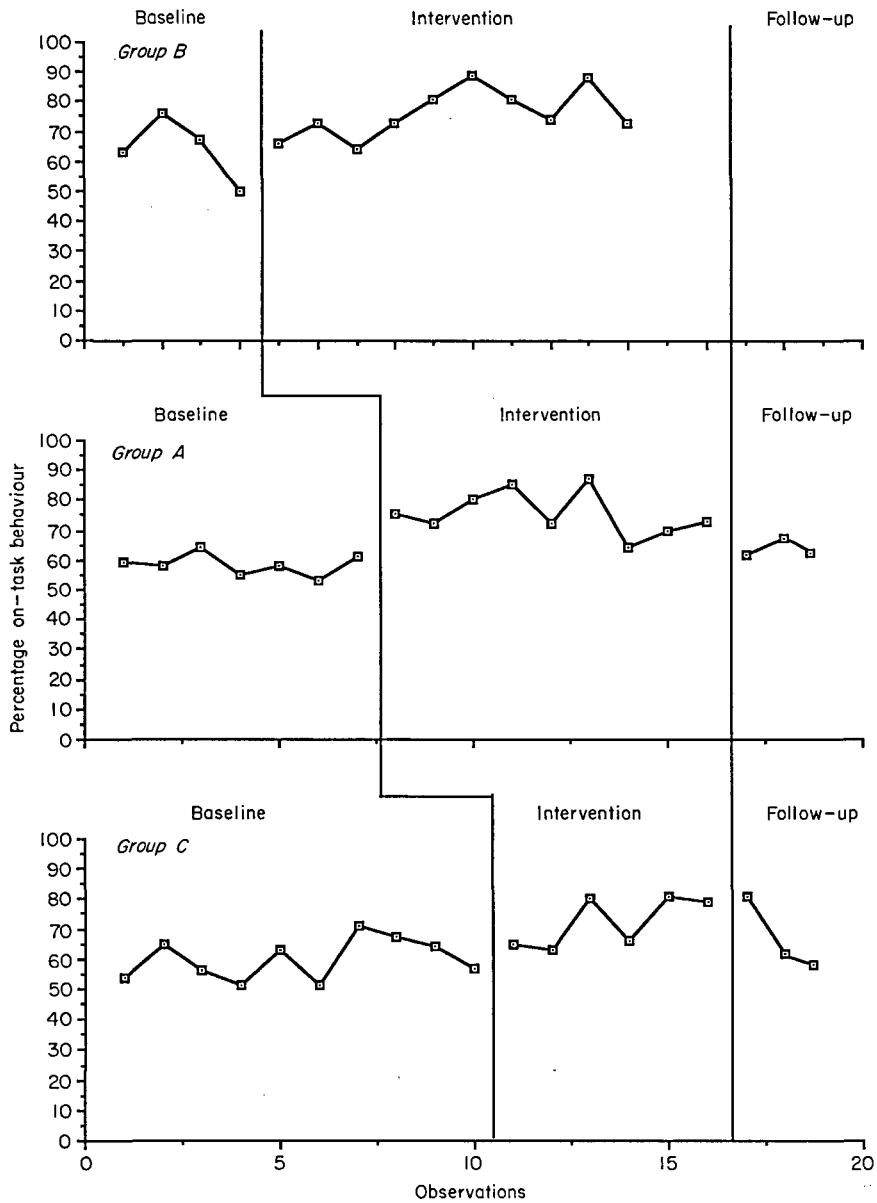
FIG. 2. Percentage on-task behaviour of all groups across phases.

Discussion

The teachers involved in this study were observed to use praise more frequently following instruction in this aspect of Canter's Assertive Discipline programme (i.e. during the intervention phase) than during the baseline phase. In terms of the ratio of positive responses to negative responses given to children, teacher A's increased from 1.36:1 in baseline to 2.27:1 during intervention; teacher B's from 5.83:1 during baseline to 19.83:1 during intervention and teacher C's from 0.90:1 during baseline

TABLE II. Mean levels of on-task behaviour of individual students across all phases
(values given as percentage)

	Baseline	Intervention	Percentage gain	Follow-up
		Category		
Group A				
1	47	61	+14	
2	72	79	+7	
3	63	79	+16	
4	53	70	+17	
5	67	75	+8	
6	65	85	+20	
7	88	83	−5	
8	58	73	+15	
Group B				
1	69	82	+13	76
2	41	60	+19	51
3	66	74	+8	62
4	59	80	+21	76
5	58	71	+13	53
6	51	70	+19	60
7	54	65	+11	73
8	63	79	+16	60
Group C				
1	63	77	+14	73
2	53	53	0	71
3	65	81	+16	56
4	53	69	+16	58
5	59	81	+22	76
6	63	73	+10	76
7	53	59	+6	71
8	54	80	+26	58

to 3.12:1 during intervention. When this happened the levels of children's on-task behaviour increased. This supports previous findings that praise can be a reinforcer for increasing levels of student on-task behaviour (Clarizio, 1970; Kromboltz & Kromboltz, 1972; Sarason *et al.*, 1972; Madsen & Madsen, 1981).

No data were collected on the frequency of children's disruptive behaviour and therefore no conclusions can be drawn regarding this in line with Canter's suggestion that increased use of praise by teachers can help in reducing classroom disruptions. However, if children are encouraged by teacher praise to increase their levels of on-task behaviour then they must have less time for off-task behaviour/disruptive behaviours.

It is interesting that all three teachers participating reduced the number of negative responses that they directed towards children during the intervention phase. It may well be that because teachers' attention was redirected to behaviour to

praise they spent less time looking for inappropriate behaviour to reprimand. Conversely, it may be that increased levels of on-task behaviour by children positively reinforced the teachers and contributed to increased levels of praise. This may be an area deserving further investigation.

While only eight children were observed from each class it should be emphasised that they were randomly selected from three separate schools and comprised approximately 30% of the total number of children in each class. Furthermore, the use of a multiple baseline research design allowed comparisons to be made within the sample. Of the 24 children observed only one did not experience an increase in his/her level of on-task behaviour. Of the increases recorded the range was from 7 to 26%. While levels of on-task behaviour increased no evidence was obtained with regard to the quantity and/or quality of the work produced by children. Therefore, future studies should investigate whether increased levels in children's time·on task reflects improvements in the quantity and quality of work produced.

It should be noted that although the trained observers achieved accuracy levels of 85% or more during training their mean levels of inter-observer agreement in some of the phases of this study were slightly lower than the generally accepted level of 80%. Consequently the findings of this present study should be interpreted with a degree of caution; a recommendation that continual monitoring of observer performance be incorporated in further studies is also suggested.

It would appear from the results of this study that training teachers to use praise appropriately, in line with Canter's recommendations, is upheld, particularly if teachers are attempting to increase on-task behaviour in their classrooms. However, Canter makes no provision in his Assertive Discipline programme for instructing teachers on how to maximise their use of praise. This needs to be considered for as Wheldall *et al.* (1989) and Merrett & Wheldall (1987) recommend, the need for increasing teachers skills in the use of praise is essential. It may be that through effective training the benefits of using praise as suggested by Canter may become more apparent to teachers, and thus play a more prominent part in the assertive discipline programme.

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