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**POSITIVE TEACHING:
CHALLENGES FOR SUCCESS**

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ALAINA EVANS-McLEOD

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Abstract

This research investigated the merits of including video footage in a training session for teachers. Training promoted ABA based principles of positive reinforcement as a strategy for classroom behaviour management. 17 secondary school teachers and their students were observed using the OPTIC schedule during 65 lessons which indicated that rates of positive and negative teacher feedback and levels of students' on task behaviour were the same as seen in previous research. Phase 1 of the study included results for 6 teachers who participated in non-video training and 1 teacher who participated in video-training. These results allow no clear conclusion to be made about the research hypothesis. Phase 2 included results for 2 teachers who received the video footage training and participated in post-training activities. Results for Phase 2 suggest that training outcomes were achieved and support the hypothesis that post-training activities contribute to a more effective training package. This study highlights the need for the consideration of elements beyond the training package itself in order to achieve effective training and enduring behaviour change in the classroom.

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Interpreting social development and social interactions according to the principles of learning theory has allowed a greater understanding of behaviour (Madsen, Becker & Thomas, 1968). As Evers, Gerrichhauzen and Tomic (2000) and Merrett and Wheldall (1986) point out, the school classroom is a dynamic environment where many complex social interactions take place, most frequently between teachers and their students. Studying social interaction and behaviour in the classroom has been a focus of educational research, particularly with regard to achieving better classroom management.

Blackman (1984) argued that because teachers perform a major role in their students' social environments they have influence on their students' behaviour through their own behaviour. Research has supported this theory. For example, an investigation into the effect of verbal teacher behaviour on students has shown that it is possible for teachers to behave in a way that improves the behaviour of the children they are teaching (Becker, Madsen, Arnold & Thomas, 1967). Thomas, Becker and Armstrong (1968) demonstrated how teachers can create troublesome behaviours in the classroom by the behaviour they use to respond to their students. In a review and analysis of teachers' use of approval and disapproval in the classroom, Beaman and Wheldall (2000) identify numerous studies, from a variety of educational settings, that demonstrate teachers' verbal behaviour to be a powerful influence on the behaviour of students and that this is evident with individual students, small groups of students and entire classrooms.

Despite education literature recognising that teacher behaviour can have influence on student behaviour, and that it can be a useful tool to establish and maintain appropriate student behaviour, teachers continue to report inappropriate student classroom behaviour to be one of their major

concerns (Evertson & Weinstein, 2006; Fraser, Moltzen & Ryba, 2000; Houghton, Wheldall & Merrett, 1988). It appears that the understanding of classroom behaviour management learnt through research is not being put into practice in the classroom and that classroom educators are not being taught the skills required for effective behaviour management. Evertson and Weinstein (2006) state that classroom management is a high priority for teachers which suggests such training would be positively received by educators.

The ability of a teacher to deliver lessons effectively can be detrimentally effected by student misbehaviour. For example, an individual's teaching ability may deteriorate if they are experiencing troublesome student behaviour and are not sufficiently skilled in classroom behaviour management. This theory is supported by Billingsley (1993) who proposed that teachers who continually experience behaviour problems in their classrooms may believe they are ineffective at working with children. Student misbehaviour is often identified as the main cause of teacher stress (Fraser et al., 2000). Research has also identified that students' troublesome behaviour may impact upon teachers to the point of 'burnout'; a syndrome characterised by emotional exhaustion and decreased personal accomplishment (Evers et al., 2000). Evers et al. also note that those affected by burnout are often unable to continue working. Teachers must be aware of, and appropriately address, potential burnout situations in order to avoid feelings of dissatisfaction, fatigue and anxiety which they may then negatively associate with their profession. This suggests that if troublesome behaviour in the classroom is reduced or eliminated via better behaviour management, teachers will experience less stress.

As Witzel and Mercer (2003) point out, classroom disruptions use up valuable learning time. This suggests troublesome student behaviour

impacts on learning opportunities and potential achievement levels of other students. For example, talking out of turn interferes with attending to assigned work, or the teacher, and generally being 'on-task'. This behaviour can therefore be identified as a threat to student learning as being on-task is necessary for effective learning to occur (Heering & Wilder, 2006; Emmer & Stough, 2001). According to Stallings (1980), research during the 1970's had convinced educators that an increase in student achievement will occur if student time on task is increased. More recently, Peters (2004) comments that "time on task is the most influential factor in student achievement" (p. 38). It is proposed that increased education and awareness about classroom behaviour may enable teachers to accurately and appropriately identify troublesome student behaviour and manage these behaviours more effectively. In this way, student on-task behaviour is more likely to increase together with levels of student learning and success.

Research in the area of classroom behaviour indicates that teachers are concerned about the amount of class time they spend on behaviour management issues. Wheldall and Merrett (1988) and Houghton, Wheldall and Merrett (1988) conducted surveys and reported that 51% of primary school teachers and 55% of secondary school teachers believed that they were spending a disproportionate amount of time on behaviour management. Merrett and Wheldall (1993) subsequently found this opinion to be supported by secondary school teachers who believed they and their colleagues spent too much time on classroom management. As pointed out earlier, teachers believe that classroom management skills are of major importance to them professionally. However, Merrett and Wheldall (1993) report that many teachers feel dissatisfied with the preparation of professional skills in this area provided by their initial training. Further, it was argued by Becker et al. (1967) that unless teachers can manage

classroom behaviour effectively, their technical teaching skills are wasted. In order to ensure that teachers are sufficiently skilled so that their time in class is used most effectively and efficiently, the acquisition and ongoing development of classroom management techniques must be promoted.

In order to define inappropriate and troublesome student classroom behaviour accurately, the nature and extent of such behaviour has been investigated. Many studies report that classroom behaviour relating to students' time spent on-task is of primary concern for teachers. Teacher surveys have reported that 'talking out of turn' (TOOT) and 'hindering other children' (HOC) are the two most problematic student behaviours (Wheldall & Merrett, 1988; Houghton et al., 1988). It should be noted that while seriously disruptive behaviour may occur, for example, student-to-student violence and teachers being threatened with violence, research suggests it is rare (NAS/UWT as cited in Houghton et al., 1988). Rather, the relatively minor behaviours of TOOT and HOC are perceived as most troublesome because they occur so frequently (Arbuckle & Little, 2004; Houghton et al., 1988). Students' own perceptions of classroom behaviour problems have also been the subject of investigation. Responses from a student survey carried out by Infantino and Little (2005) indicate agreement with teacher opinion, as the secondary school students also identified 'talking out of turn' as the most troublesome student behaviour. It is argued that a reduction in TOOT and HOC behaviours, identified as undesirable by both teachers and students, could be achieved if teachers were better skilled in classroom behaviour management.

Behaviourally based psychological interventions have frequently been applied to the issue of disruptive, troublesome and inappropriate student behaviour in classrooms. Evertson and Weinstein (2006) identify that a behavioural view of student behaviour management has been and

continues to be a “dominant and influential paradigm in educational research” (p 47). Swinson and Harrop (2005) note that behavioural based interventions started making an impact in classrooms in the 1960s. The research of Madsen et al., (1968), discussed above, is one example of an early behaviourally based psychological intervention. The behavioural approach originates from the work of B.F. Skinner and recognises the importance of positive reinforcement and punishment procedures in changing behaviour (Swinson & Harrop, 2001). At a basic level, behaviourally derived interventions also recognise the relationship between an individual’s behaviour and their environment (Kern & Clemens, 2007). In the classroom, this Skinnerian framework can be translated into methods and strategies which manipulate the student’s environment in order to reduce disruptive behaviour and increase on-task behaviour.

An intervention developed for an educational setting in response to disruptive, inappropriate and troublesome student behaviour should reflect basic behaviour analysis principles (such as those discussed by Baer, Wolf & Risley, 1968). In order to be a technologically sound and analytical behavioural application, which is effective in the sense that it has practical value, an informed evaluation of the individual’s environment is required. This evaluation can help determine what environmental variables are relevant, which of those variables are able to be manipulated, and how, in order to bring about a change in behaviour. The manipulation of antecedent events is one example of a behavioural intervention used in education. Antecedent events are those that immediately precede the behaviour under investigation. Observations of such events can identify “the environmental variables that appear to set the occasion for problematic behaviour” (p. 65, Kern & Clemens, 2007). The behavioural intervention is based around the

modification or removal of these events and, as noted by Kern and Clemens, can be effective at both a class wide and individual student level.

One simple example of an antecedent strategy for effective classroom management is having clear rules and expectations in the classroom, which are first taught and then reinforced by the teacher (Kern & Clemens, 2007).

A further example of a classroom level strategy can be identified in an investigation which focused on the type of language the teacher used in class. Harrison, Gunter, Reed and Lee (1996) hypothesised the instructional language used by the teacher to be an antecedent event which maintained avoidance or escape behaviour in students with emotional and behavioural difficulties. Recommendations were made to reduce or eliminate the type of teacher language identified as aversive for this group of students. Positive Behavioural Support (PBS) and Positive Behavioural Interventions and Supports (PBIS) are programmes that were developed to promote positive student behaviour more effectively. The PBS/PBIS methods attempt to prevent the initial occurrences of problem behaviour and demonstrate another example of an antecedent based strategy which has been implemented at a school wide level. The approach is based on the premise that “systematically teaching behavioral expectations and rewarding students for following them is a much more positive approach than waiting for misbehavior to occur before responding” (<http://www.pbis.org/primaryprevention.htm>).

Kern and Clemens (2007) identify several advantages of implementing antecedent intervention strategies in schools, including the high probability of the reduction or elimination of the problem behaviour. Such strategies are also likely to be quick acting and Kern and Clemens note that the prompt removal of behaviour problems is the ideal for effective classroom management. Finally, Kern and Clemens argue that antecedent based

strategies improve the classroom environment and, in this way, it is possible to create an environment where students want to be and are motivated to learn. While antecedent intervention strategies have been proven useful, many other successful classroom behavioural interventions have been based on an alternative strategy which manipulates behaviour consequences.

Consequence-based behavioural intervention strategies focus on events which occur directly after the behaviour in question, rather than before. One example of such a strategy for classroom management is feedback in the form of teacher approval and disapproval or praise and reprimand. Positive teacher attention and praise have been recognised as powerful influences on student performance in the classroom (Alber & Heyward, 2000). Further, education research has identified that a well managed classroom is characterised by a teacher who uses a proactive and preventative strategy rather than a reactive one to identify and teach desired behaviour to the students (Swinson & Harrop, 2005). The teacher maintains this effective management system with prompt and appropriate feedback to the students (Emmer & Stough, 2001).

Positive teaching practices encourage teachers to deliver frequent and appropriate attention in the form of praise and approval to their students. Hayes, Hindle and Withington (2007) propose that teachers' verbal behaviour could be a key factor in achieving successful outcomes in classroom management interventions. They state that "verbal reinforcement is possibly the most fundamental tool available to teachers and arguably the most powerful and meaningful for pupils" (p.162). Research has demonstrated that when teachers provide positive verbal feedback to students, in the form of praise for appropriate behaviour, the likelihood of such behaviour occurring in the future is increased (for

example, Madsen et al., 1968). The literature suggests that teacher verbal praise is an effective and straightforward strategy for student behaviour and classroom management (Beaman & Wheldall, 2000). However, as recognised by Alber and Heyward (2000) many teachers require help to increase the frequency with which they praise and give approval for desired student behaviour.

The following applied research examines the naturally occurring rate of teacher approval and disapproval, and also investigates these rates following a prescribed intervention which specifically manipulates teacher approval and disapproval. Some of the manipulated rate studies, that are reviewed below, directly examine the relation between teacher verbal feedback and student on-task behaviour.

White (1975) focused on the natural rates of teacher verbal approval and disapproval and proposed that measuring the rates across different grade levels might provide an explanation for the emergence of student learning problems and the reported decline in students' interest in learning. White observed that, previously, such learning problems had been attributed to vague and futile theories such as 'poor motivation' and 'drop in creativity'. Using the Teacher Approval and Disapproval Observation Record (TAD), White recorded all teacher verbal approval, defined as verbal praise or encouragement, and all verbal disapproval which followed a student's behaviour. Disapproval was defined as "verbal criticism or a statement that indicated that the student's behaviour should change from what was unacceptable to acceptable to the teacher" (p. 368). The associated student behaviour was also recorded. White made the distinction between 'instructional' student behaviour related to the on-going instructional activity in the classroom (academic behaviour) and

'managerial' behaviour was recorded to be any activity that involved classroom management (social behaviour).

White (1975) reported that overall the highest teacher approval rate (of 1.3 approvals per observed minute) occurred in the first grade. The observations of the subsequent grade levels revealed a decline in these rates with secondary school classes experiencing one event of teacher approval every 5 or ten minutes. As noted by White, this rate translates into a very low number of approvals over a typical scheduled lesson. In every grade after 1 and 2, the overall teacher disapproval rate was higher than the rate of approval. For academic student behaviour, teacher approval was higher than disapproval rate but for student social behaviour, teacher disapproval occurred at a much greater rate than approval. These results lead White to conclude that teachers may not realise the importance of praise and positive reinforcement as a classroom management tool.

A subsequent New Zealand study specifically sought to provide further insight into student learning problems and the questions originally proposed by White (1975). In addition, Thomas et al. (1978) proposed that classroom observations could contribute to improved teacher training programmes. Thomas et al. carried out observations in an educational facility designed to assist with 'problem children'. A time-sampling method recorded children's on- and off-task behaviour, together with teachers' verbal responses related to students' on-task behaviour and off-task behaviour. However, this study was limited in that it neglected to make an academic/social distinction between the teacher's responses. Results indicated that the majority of teachers had individual rates of disapproval that were higher than their individual approval rates. For example, seven of the 10 teachers used verbal disapproval three times as much as they used verbal approval.

These results support those of White (1975) despite differences in observation instruments used and varying behavioural and cultural factors.

A US investigation of the natural rates of teacher approval and disapproval did not support the earlier findings of White (1975) and Thomas et al. (1978). Observations carried out by Nafpaktitis, Mayer and Butterworth (1985) reported that the average rates of teacher verbal approval were found to exceed the rates of disapproval. The authors recorded the natural rates of teacher approval of appropriate student behaviour, approval incorrectly given for inappropriate student behaviour and teacher disapproval towards student behaviour. Results indicated a average rate of 0.90 appropriate approval responses per observed minute and a average rate of 0.29 disapprovals per minute. Nafpaktitis et al. identified a clear correlation between the level of off-task student behaviour and the teacher's use of approval and disapproval. Specifically, the relation between the rate of teacher disapproval and the rate of student off-task behaviour lead the authors to conclude that teacher attention in the form of disapproval to inappropriate behaviour serves to reinforce this behaviour.

Nafpaktitis et al. (1985) gave additional consideration to the distinction between appropriate teacher approval (which followed on-task student behaviour) and inappropriate teacher approval (which followed off-task student behaviour). One of the largest positive correlations identified was between inappropriate teacher approval and disruptive student behaviour. The authors suggest that some students "may find it reinforcing to irritate teachers" (p. 365) and otherwise behave inappropriately in class because it results in teacher attention in the form of disapproval. As a result, the student responds to inappropriate approval in the same way as they do to appropriate approval (with an increase in the approved behaviour). This

finding suggests serious implications for individual teachers and their classroom management.

Merrett and Wheldall (1986) recognised that prior educational research experienced an issue in how to identify and objectively record key teacher and student behaviours in class while ensuring that the observer was unobtrusive. To address this issue, Merrett and Wheldall developed OPTIC (Observing Pupils and Teachers in Classrooms) as an observation schedule to gather data on teacher and student behaviour related to classroom management. OPTIC records teachers' use of approval and disapproval in response to students' social and academic behaviour together with the effects of these teacher behaviours on student behaviour relating to disruptive acts and time spent 'on-task'. Section A of the schedule records positive and negative teacher responses to students' academic and social behaviour and section B estimates students' on-task behaviour. The authors rated the OPTIC schedule as a reliable and valid observation instrument as inter observer agreement measures taken averaged over 90% for both sections of the schedule.

Merrett and Wheldall (1987) utilised the OPTIC schedule to study of the natural rates of teacher approval and disapproval in British primary and middle schools. They found that teachers gave more appropriate approval than disapproval responses, supporting the trend suggested by Nafpaktitis et al. (1985). The authors note that a high proportion of the teacher approval followed students' academic behaviour. However, in response to students' social behaviour alone, teacher disapproval was five times that of approval. This finding further supports the argument that teachers may have difficulty recognising and rewarding the appropriate social behaviour of their students. An extension of this study was carried out in British secondary schools where 130 secondary school teachers were observed

using the OPTIC schedule (Wheldall, Houghton, Merrett & Baddeley 1989). This study reported similar results to the primary and middle school settings in that teachers used more approval than disapproval overall. In line with previous research, the authors observed that the majority of teacher approval was provided for academic student behaviour, whereas most teacher disapproval was directed at inappropriate social behaviour. The proportions of teacher feedback for students' social behaviour identified in these two studies are supported by subsequent investigations. Wheldall and Beaman (as cited in Beaman & Wheldall, 2000) noted that the largest proportion of teacher feedback was negative and given for students' social behaviour (accounting for 40% of all teacher feedback). Similarly, baseline observations by Swinson and Harrop (2005) reported that negative feedback for social behaviour accounted for 52% of all teacher feedback.

The above studies used classroom based observers to witness classroom events and record data on the perceived rates of teacher verbal approval and disapproval. A permanent method of recording teacher approval and disapproval was first utilised by Swinson and Harrop (2000). It was suggested that the permanent recording method might allow for more precise recording and a more sophisticated analysis of the data than the information obtained by classroom based observers in previous investigations. The subjects of the study, 10 infant school teachers, 10 junior school teachers and 10 secondary school teachers, delivered their lessons wearing radio microphones. Results obtained in this study reflected earlier investigations with more teacher approval than disapproval being given during the lesson.

The above investigations of the natural rates of teacher approval and disapproval have reported some conflicting results. However, as noted by Beaman and Wheldall (2000), a review of these studies does highlight that

the trend of early studies for teachers to provide more disapproval than approval may have been reversed to the point where teachers are more approving than disapproving. Overall, the literature appears to agree that teacher praise or approval is more likely to be given for academic student behaviour than social student behaviour. Further, teachers were observed in the majority of the studies to respond far more frequently to the inappropriate social behaviour of their students than to the appropriate social behaviours. In this way, some teachers may be unaware that their use of approval and disapproval could be responsible for discouraging appropriate behaviour in the classroom.

Research on the natural rates of teacher approval and disapproval suggests that teacher praise is important in order to effectively manage student classroom behaviour. It has also been shown that teachers can learn behavioural strategies which can help them gain more appropriate behaviours from their students (Madsen et al., 1968). Additional research, which successfully manipulates teacher approval and disapproval rates, provides further evidence for the extent to which teacher behaviour can influence the behaviour of their students. The following studies report on the experimental manipulation of teacher feedback in terms of approval (praise) and disapproval statements. For example, information is first obtained on the natural rates of teacher approval and disapproval. A behavioural based intervention is then introduced which specifies what approval and disapproval the teacher is to deliver to students and under what circumstances.

A study conducted by Madsen et al., (1968) referred to as Rules, Praise and Ignoring, is noted by Swinson and Harrop (2005) to be one of the most influential early behavioural interventions carried out in a classroom. The aim of this study was to demonstrate how the teacher could achieve a

'happier', more effective classroom via the application of learning principles. Two teachers, identified as having children with a high frequency of problem behaviour in their classes, were observed in a baseline condition and then completed a six week workshop on the use of behavioural strategies in the classroom. Following the workshop, the teachers were guided in a program which required them to make classroom rules explicit, ignore disruptive behaviours and praise appropriate classroom behaviour. The experimental conditions (Stating Classroom Rules, Ignoring Inappropriate Behaviour and Providing Praise) were introduced, one at a time, and the effects on the target children's behaviour observed. Results indicated the Stating Classroom Rules condition (introducing rules and making them explicit in the classroom) had no noticeable effect on inappropriate student behaviour. Results were inconsistent under the Ignoring condition as the behaviour of the first class was observed to clearly deteriorate while the behaviour of the second class remained unchanged. Teacher feedback also indicated that this was the least preferred behaviour management strategy. The authors concluded that combining the ignoring and praising strategies was very effective in achieving better classroom behaviour and that praise for appropriate student behaviour was probably the key teacher behaviour in achieving effective classroom management.

To provide further evidence for the importance of positive teacher feedback for classroom management, Thomas et al., (1968) designed an investigation to deliberately create and eliminate problem student behaviour by varying teacher behaviour. The study was carried out with a class of students identified as 'well-behaved' and involved a specific sequence of conditions. The first phase (Baseline) consisted of measuring both teacher and student behaviour when no attempt was made to manipulate teacher

behaviour. During the second phase the teacher was instructed to give no approval and use only contingent disapproving behaviours (No Approval condition) with phase three and four repeating the Baseline and No Approval conditions. Phase five required the teacher to increase disapproving behaviour to a rate three times that of the Baseline rate while withholding approving behaviour. Phase six returned to the No Approval condition and the final phase returned to Baseline. In this study, approving and disapproving teacher behaviour included physical contact and facial expressions as well as verbal statements. The results showed the frequency of appropriate student behaviour to be high whenever teacher approval followed the student behaviour but to decrease when the teacher approval behaviour was discontinued. The authors' most important conclusion was that "unless an effort is made to support desirable classroom behaviours with appropriate consequences, the children's behaviour will be controlled by others in ways likely to interfere with the teacher's objectives" (p. 45), thus recognising the significance of effective behaviour management in order for the teacher to achieve the most effective classroom environment.

Harrop (1974, as cited in Swinson & Harrop, 2005) conducted a study where teachers were encouraged to carry out interventions with one of their students with an aim to increase appropriate and decrease inappropriate classroom behaviour. Eight out of 16 teachers completed a six week course, involving weekly meetings, during which the teachers were each encouraged to carry out an intervention with one of their students to increase appropriate and decrease inappropriate behaviour. Seven of these eight teachers reported success, although Swinson and Harrop note that success was evaluated by the teachers' own observations.

Early studies which demonstrated the benefits of using appropriate approval and disapproval in the classroom lead to the development of specific teacher training packages with an emphasis on positive teaching practices. One of the first examples of this broader application of positive reinforcement principles for education was the Behavioural Approach to Teaching Package (BATPACK), developed and evaluated by Wheldall and Merrett (1985). Designed for use in primary and middle schools, BATPACK resulted from British research into how teachers should behave in classrooms to bring about optimal conditions for learning. The emphasis of the BATPACK programme is on skills training; training teachers how to use the behavioural approach in actual teaching situations rather than just lecturing about behavioural principles. It is an in-service course of six, one-hour sessions which are presented by specially trained tutors, and cover areas of classroom management including pin-pointing and observing student behaviour. An experimental evaluation of BATPACK carried out by the authors (Wheldall & Merrett, 1985) reported that, following completion of the course, the percentage of on-task behaviour of students increased from an average of 75.00 to 84.00 (the average on-task scores of the control group went from 74.80 to 68.80 over the same time period). The teachers' average positive responses to their students increased by approximately 170%. Post-course teacher questionnaires and objective observations of teacher and student behaviour during class attempt to ensure the programme is thoroughly evaluated. This process ensures that the package is continually revised and refined according to the feedback and also current research.

A further evaluation of BATPACK compared two groups of teachers and their classes from two primary schools which were allocated to experimental and control conditions (Wheldall, Merrett & Borg, 1985). The

experimental group underwent BATPACK training and the control group attended one seminar on behavioural approaches to teaching where handouts were given out. Results indicated a significant difference between pre- and post-intervention measures in that teachers who had participated in the BATPACK training were responding positively to both academic and social behaviour at a much higher rate than the control group teachers. Results also indicated that the on-task behaviour of the students of the BATPACK trained teachers improved from an average of 75% to 84%.

BATSAC - The Behavioural Approach to Teaching Secondary Aged Children was subsequently developed specifically for the secondary school setting (Wheldall et al., 1989). Using the same six session training method, an evaluation of BATSAC reported that for 14 teachers, the teachers' average positive responses doubled and average negatives fell to around 25% of their pre-training level while the average levels of on-task student behaviour rose from 78.6% to 89.5%. These findings reaffirm the value of positive teaching and endorse the use of appropriate teacher approval in all school settings.

It could be argued that the investment in BATPACK/BATSAC is costly in terms of the resources required and the time taken to achieve the changes in teacher behaviour that would lead to better overall classroom management. Swinson and Harrop (2005) challenged the considerable time required for teacher training and questioned whether the improvements in student behaviour found in previous investigations could be achieved while decreasing the investment in teacher training time. Their study involved a 2½ hour training session, presented to preschool, primary and secondary teachers, which consisted of feedback to teachers, based on an analysis of lessons observed prior to the training, and a PowerPoint presentation. The primary aim of the course was to increase the teachers'

rates of verbal approval for appropriate student social and academic behaviours and decrease their rates of disapproval. Overall results show that the teachers increased their rates of approval following training from 1.09 per minute to 1.91 per minute and decreased their overall rates of disapproval from 1.00 to 0.39 per minute. Simultaneously, the on-task behaviour of the students increased from 77.5% to 94.1%. These results compare favourably with those of the BATPACK training where increased teacher approval lead to the percentage of on-task behaviour of their students increasing from 75% to 84%.

Swinson and Harrop's (2005) investigation using the short training course also made the distinction between teacher feedback directed towards student academic and social behaviour. Following training, it was reported that average rates of teacher approval to academic behaviour increased from 0.95 to 1.56 per minute and average rates of teacher approval to social behaviour increased from 0.13 to 0.39 per minute. The overall rate of approval for social behaviour increasing by 200% and for academic behaviour increasing by 64% suggests that teachers had also changed how they delivered approval towards different types of student behaviour. This is an encouraging finding but it should be noted that teacher responding to student academic behaviour was still occurring at a rate four times greater than responding to student social behaviour. The authors confidently asserted that the increased level of student on-task behaviour experienced by all but one teacher emphasised to the teachers the value of maintaining their approval/disapproval levels at their post-training rates. The apparent success of the short course training was attributed to three key areas of the programme: the advice given was based on proven results, the pre-training discussion was based on the

general teaching practices observed and a concerted effort was made to keep the content of the presentation simple.

A recent study by Swinson and Knight (2007) examined the teacher responses directed towards students which their teachers had identified as being difficult to teach. The authors observed the quality and quantity of teacher verbal feedback directed to both the whole class and to the target students, as well as the on-task behaviour of all students. In support of the teachers' opinions, baseline observations identified the target students as being less on-task than their classmates. The teachers in this study were observed to be more negative and less positive in their overall feedback than had been found in previous studies (such as Harrop & Swinson, 2000 and Merrett & Wheldall, 1987). However, the observation that most negative feedback was directed towards students' social behaviour and the majority of positive feedback was directed to students' academic work was in line with past research. It was noted that the target students received an "over-proportionate degree of negative feedback" (p. 249) for their behaviour and were given almost no positive feedback for appropriate behaviour. The authors concluded that the teachers' overall use of approval and praise was positively related to the on-task behaviour of the target students. This finding contributes further to the understanding of the importance of teacher behaviour for effective classroom and student behaviour management.

In a study by Baker (2005), secondary teachers reported feeling less capable and prepared to manage challenging student behaviours than their primary school colleagues. This findings of this study indicate that some behavioural issues may be specific to secondary schools and secondary teachers. Other research suggests that the behavioural issues being experienced by secondary teachers are comparable to the primary

classroom setting (Little, 2005; Wheldall et al, 1989). If the behavioural issues are similar, it then follows that the same behavioural principles will apply to both primary and secondary settings. This was supported by a review of 37 studies carried out in British educational settings which concluded that behavioural methods are as effective in both secondary and primary school settings (Houghton et al., 1988). However, the authors noted that fewer studies from secondary schools were reported which may account for the apparent lack of utilisation of verified behavioural methods in this setting. Overall, the literature suggests that while there may be some subtle differences to be aware of between primary and secondary settings, these do not detract from the overall effectiveness of positive teaching practices.

Education literature, such as the examples outlined above, demonstrates how behavioural principles based on positive teaching practices can be successfully applied in the classroom by all teachers to achieve better classroom management. When considering how to train teachers in positive teaching practices it is useful to consider personnel training and proven training methods in general. Learning opportunities implemented through videotape is one popular strategy used for training. In a review of the top ten training methods used in business in terms of effectiveness, the use of videotapes was ranked number one (Read & Kleiner, 1996). Training packages that use video to demonstrate good practice provide actual observable examples of the training objectives through modelling. Behaviour modelling, where people are taught by observing others, has long been recognised as one of the most effective methods for learning throughout the life span (Bandura, 1977). These learning principles are similarly applicable in the workplace to train and up-skill employees. In this environment, behaviour modelling has been defined

as "a training method in which trainees are presented with a model who demonstrates key behaviours to replicate and provides them with the opportunity to practice those key behaviours" (p. 452, Noe, 2002). One major advantage of learning via behaviour modelling is that any trial and error processes, which may be experienced when learning a new skill, are avoided. This saves time and, from an organisational point of view, is also efficient in terms of training costs.

The rapid development in technology, specifically with regard to the use of video, is evident in recent enhancements to teacher training programmes and professional development. It may be argued that narrative based cases that had previously been used for teacher training and development could be criticised as being limited in the sense that facial expressions, body language and other interactions in the classroom are not captured. The emergence of video-based methods for teacher training and education is apparent in two areas (Lee & Wu, 2006). One approach is video-based self-evaluation, which uses video recordings of the individual's teaching performance to allow analysis and the identification of improvements that can be made in their individual practice. Clarke and Hollingsworth (2000) note that feedback gained from this process promotes reflection in that the teacher can spend time considering their lesson afterwards. Reflection is said to be a crucial ability of teachers that should be developed during their pre-service training (Lee & Wu, 2006).

The other approach utilises video to learn from exemplars where realistic classroom situations allow teachers to observe models of ideal practice or present case studies of common classroom issues. It may be argued that a major advantage of this method of training and development is that any discussions can be based on a shared understanding of the

events presented on the video. In this way, the video provides a common reference point (Clarke & Hollingsworth, 2000).

Clarke and Hollingsworth (2000) identify several benefits for teachers of using video to enhance training using case studies. They highlight how video can extend the discussion to the issues relating to teacher's actual practice rather than being limited to theories of teaching. Observers can also independently interpret the events depicted and only concentrate on aspects they consider important. It is proposed that videos offer a more graphic and convincing illustration of the case study, "They capture more of the social fabric of the situation, greater context and more detail of classroom practice" (p. 42). The premise of using video footage showing models using ideal teaching practice is that observers can take on board proven strategies for later implementation in their own classrooms. Clarke and Hollingsworth (2000) propose that observing exemplars may also encourage teachers to share their own teaching practices and beliefs, and to relate these to practices in the video and those of other group members. However, a review of teacher training methods lead Rose and Church (1998) to caution that using models in isolation may not be enough when training teachers. They identified that modelling can facilitate the acquisition of new teaching skills but that greater changes in teacher behaviour could be achieved when modelling methods were combined with other training methods, such as supervising the teaching practice of the trainee.

Assertive Discipline (Canter & Canter, 1976, 1982) is an example of a teacher training programme which includes examples of good teaching practice shown on video (the first programmes with video training materials were produced in 1979). The programme is similar to teaching packages discussed earlier in that the successful management of the student, evidenced by on-task behaviour, results from appropriate teacher approval

and disapproval. Swinson and Melling (1995) highlight that the major difference between the Assertive Discipline programme and other behaviourist approaches (for example, Merrett & Wheldall, 1986 and Wheldall & Merrett, 1985) is that the need for sanctions is recognised.

Evaluations of the Assertive Discipline programme suggest that it can achieve its objectives in terms of ensuring students are on-task and reducing the number of disruptive incidents in class (for example, Swinson & Cording, 2002 and Nichols & Houghton, 1995). However, there has also been some debate about the value of Assertive Discipline programmes. Disputes have arisen over the integrity of Canter's research, how the negative consequences should be implemented in the classroom and a perceived lack of internalisation of new behaviour (Robinson & Maines, 1994; Swinson & Melling, 1995; Maines & Robinson, 1995).

Digital video footage is increasingly available to global audiences via the World Wide Web, and further illustrates how demonstrations of ideal teacher practice using video technology can enhance teacher training and education. A model was developed in 1999 by researchers at the University of California, Irvine, in collaboration with Apple Computer that features videos of exemplary teachers presenting math lessons instruction. Each video also includes commentary that helps the observer understand the training aim of each lesson. The website has been used on an experimental basis to assist in the preparation of new teachers and initial reports have indicated positive feedback in terms of the teaching ability of the participants (Salpeter, 2003). Overall, the literature suggests that the use of video is one of the most effective training methods with many advantages, including providing common reference points and a shared understanding of events between the viewers. Continuing technological progress has resulted in enhanced methods for training which utilises video.

The educational research reviewed here has demonstrated that it is possible for teachers to achieve better classroom behaviour management through the use of behavioural principles. However, as teachers' reports indicate, the understanding from research is not being transferred to the classroom and everyday teacher practices, and that training in classroom management is needed. The use of video in training packages has been discussed as a proven method for effective training of new professional skills. Video can either include exemplar models to provide observable best practice examples or recordings of the individual teacher to provide an objective viewpoint and opportunity for reflection on their own practice.

The importance of teachers using appropriate feedback, in terms of approval, praise and disapproval in the classroom, is well established in the literature. However, for teachers to deliver such feedback correctly, training which demonstrates how and when to use appropriate feedback is required. Further, it is suggested that this training be as efficient and as effective as possible to appeal to busy teaching professionals and encourage uptake of suggested strategies. The use of video is one training method proven to be efficient and effective for training new professional skills. Given the importance of behavioural training for teachers and the apparent advantages of using video in training, it is desirable to investigate whether the addition of videos enhances behavioural training.

The current study examines verbal teacher approval and disapproval and the effect on their students' on-task behaviour before and after a short teacher training course. The study used a group design and the participation of approximately 20 teachers. The verbal behaviour of teachers and students during class were recorded using a video camera with each teacher being observed during 4 – 6 of their lessons. One half of the teachers received training which included video clips to model key

behaviours of the training objectives. The main aim of the project was to investigate whether the inclusion of video clips for one training group and not the other made any difference to how the video-trained teachers delivered their post training verbal feedback. The video clips showed typical classrooms both before and after behaviour management recommendations. It was hoped that the before and after contrast would engage the participants' interest in the presentation and behaviour techniques suggested. The general aim of the training course was that the teachers in both training groups would increase their rates of verbal approval for required student behaviours and decrease their rates of disapproval and that these changes would be accompanied by increased student on-task behaviour. A secondary goal of the project was that the teachers would change the balance of approval to social behaviours and academic behaviours following training.

Method

Participants

The participants in this study were 17 classroom teachers from a co-educational state secondary school attended by students from a small town and its surrounding rural areas. These teachers were selected as participants because they were teaching the four core Year 9 subjects (being English, mathematics, science and social studies), and they had agreed to undertake training and to be observed in their classrooms before and after the training. These 17 teachers participated in the baseline phase of the study (referred to as the “baseline teachers”/“baseline group”). From this baseline teacher group, 11 teachers participated in the teacher training phase of the study (referred to as the “trainee teachers”/“trainee group(s)”). Seven teachers from the trainee group participated in the post-training phase of the study (referred to as the “post-training group”).

The research project was approved by the school’s principal and board of governors, and promoted by the school Special Education Needs Co-ordinator, as part of the ongoing professional development carried out in conjunction with Group Special Education (GSE) under the Ministry of Education. It was explained to the participants that the study would require their lessons to be video recorded for observation purposes and that they would be required to attend one training session followed by further video recording of the post-training lessons they delivered. Teaching staff were not obliged by the school to participate in this research. The research reported on in this study had been approved by the Ethics Committee of the University of Waikato.

Materials

Classroom observations utilised a Panasonic video camera with the sound activated. Videos were analysed utilising the behaviour observation schedule Observing Pupils and Teachers in Class (OPTIC) (Merrett & Wheldall, 1986) with minor adaptations as outlined below. The modified OPTIC Schedule used in this study is attached as Appendix A. The training phase of the study utilised the PowerPoint presentation developed by Swinson and Harrop (2005), 'Managing behaviour—four essential steps' adapted in the manner outlined below. The versions of the presentation (the Group A (non-video) version and the Group B (video) version) are attached as Appendix B.

Procedure

Baseline video observations. The video camera was placed in each of the baseline teacher's classroom to obtain video footage of their core subject lessons. The camera was positioned in such a way as to capture the majority of students in the classroom. Sound was recorded in order to capture verbal interactions between the teachers and their students during each observed lesson. It was intended that video be collected for each of the baseline teachers by observing four lessons each to achieve a total of 68 separate classroom observations. Actual video footage obtained during the baseline phase of the study captured a total of 64 separate lessons. However, while it was intended that an equal amount of video be collected for each teacher in the baseline group, the number of videos obtained for each teacher varied from 1 video to 11 videos per teacher.

Table 1 summarises the number of lessons observed for all teachers in the baseline group to obtain baseline information. The number of students

per class during the baseline observations averaged 13 students with the exception of teacher CN, whose class numbers averaged 7 students.

Table 1. *Number of lessons observed for each teacher and average number of students per class during baseline observations*

Teacher	Number of lessons observed during baseline	Average number of student per class
AU	1	12
BA	1	14
CN	11	7
CO	4	13
CT	1	9
DR	2	16
GY	5	14
LM	4	14
MO	4	15
OR	5	16
RY	3	12
SN	1	9
TA	3	14
VS	5	12
WD	6	14
WE	3	14
WI	5	17

Baseline data analysis. Once the video footage of the baseline group was obtained it was analysed according to OPTIC. OPTIC is a classroom observation schedule used to record information on teacher and student behaviour focusing on the teacher's use of approval and disapproval directed towards their students' academic and social behaviour. Information recorded on the schedule also allows examination of the teacher behaviour on their students' classroom behaviour in terms of time spent 'on-task'. The implementation of OPTIC in this study did not use observers placed in the classroom or record the teacher's gestural feedback as included in the original model.

The middle 30 min of each videotaped lesson was identified for OPTIC analysis on the premise that this portion of the lesson would contain the most typical teacher and student activity and behaviour during the lesson. Excluding the first and last 15 min of each lesson from analysis avoided any 'settling down' in terms of student behaviour and any teacher administration tasks where opportunities for teacher feedback to students were limited. The analysis of the 64 videotapes allowed for baseline information to be obtained for the baseline group on the rates of verbal approval and disapproval directed at the students during lessons and the amount of student on- and off-task behaviour. The video footage obtained was observed and scored by a post graduate psychology student.

Section A of the OPTIC observation schedule is designed to collect information on the different categories of teacher feedback. Section A required the observer to watch the teacher during their lesson for periods of 3 min. The schedule required 5 blocks of 3 min intervals to obtain a total of 15-min observation time per lesson. During each 3 min interval, the observer recorded all events of verbal teacher responses directed towards student behaviour. The feedback was noted to be positive (for example, "Correct!", "That's great!", "I like that!", "Well done!") or negative (for example, "That's wrong!", "Don't do that!") (p. 68, Merrett & Wheldall, 1986). The observer, when analysing the videos, was also required to discriminate whether the student behaviour was academic (like giving a correct answer) or social behaviour (like putting up a hand to answer a question).

Section B of the OPTIC observation schedule is designed to collect information on the number of students exhibiting on-task, off-task or disruptive behaviour during the lesson. Section B required the observer to watch the students in the class for periods of 3 min. The schedule required

5 blocks of 3 min intervals to obtain a total of 15-min observation time per lesson. During each 3 min interval, the observer monitored whether students appeared to be on or off-task. The observer analysing the video tapes was instructed to divide the students visible on the classroom videotape into three approximately equal groups and pay attention to each group in turn for one minute. During the first minute the observer observed each student in the first group, in turn, for 4 s and decided whether, for the whole of that period, he or she was on-task. To be rated on-task the student had to be attending (in eye-contact with the teacher or the task), appearing to listen to the teacher (or to another student asked by the teacher to speak) or following the teacher's instructions (Merrett & Wheldall, 1986). The observer was required to make tally marks on the Schedule for each individual student in the appropriate columns according to whether they appeared to be off task or on task. The remaining two groups of students in the class were observed for the remainder of the interval using the same procedure.

The observer was instructed to alternate between sections A and B of the Schedule for 3 min each thus obtaining 15 min of observation data for each section (30 min total observation time per lesson).

Inter observer agreement procedure was carried out by the researcher and the post graduate psychology student. Each observer independently and simultaneously recorded teacher feedback and student behaviour from the same classroom videos. Both observers had familiarised themselves with the operational definitions of the different categories of teacher feedback and how to identify whether a student was on-task, off-task or disruptive according to the OPTIC Schedule. The video footage used for inter observer agreement consisted of two random 3 min segments from 5 baseline classroom videotapes. For each video, teacher behaviour was

observed for 3 min and student behaviour was observed for 3 min. Each observer used a separate OPTIC observation schedule to record events of teacher feedback and student on- or off-task behaviour. Once the simultaneous recording was complete, the percentage of agreement was calculated by dividing whichever was the smaller total recorded by the larger total and multiplying by 100 (Cooper, Heron & Heward, 1987).

Training the teachers. Two groups of teachers were required for the teacher training phase of the study and were formed in the manner outlined below. Group A and B received identical teacher training in that the training was part of an in-service day and lasted approximately 2 ½ hours. Both training sessions were delivered by the school's GSE psychologist and a senior university lecturer.

The first part of the teacher training for Group A and Group B consisted of feedback to the trainee teachers based on the preliminary analysis of the baseline videotapes. The feedback component of both training sessions involved a discussion of the baseline teachers' mean scores for their positive and negative feedback calculated from the OPTIC Schedule data. The results were coded so as to prevent identification of the baseline teachers. These scores illustrated the averaged percentages for the baseline teachers of overall teacher approval, teacher approval given for students' work (academic) and teacher approval given for students' behaviour (social). Scores for overall teacher disapproval, teacher disapproval given for students' work and teacher disapproval directed towards students' behaviour were also presented.

Comparisons with previous research (Swinson & Harrop, 2005) were made and it was emphasised to the trainee teachers that the results found from baseline observations were similar to previous findings; teacher approval tended to be reserved for students' academic behaviour, while

teacher disapproval was often directed at students' social behaviour. This feedback session discussed how the teaching styles evident from the pre-training observations appeared to be reactive. It was highlighted that disapproval for social behaviour was a very limited classroom management strategy because it only achieves short-term changes in behaviour.

Alternative classroom management strategies were suggested which encouraged increased use of approval for appropriate behaviours (Swinson & Harrop, 2005).

The "4 Essential Step" PowerPoint presentation was shown during the second part of each teacher training session. This presentation was originally devised by Dr Jeremy Swinson as a PhD student, with the contribution of Richard Melling (an Educational Psychologist) and Mike Cording (formerly the principal of a school for children with Emotional and Behavioural Difficulties and subsequently a behavioural consultant). The presentation was developed from research by Jeremy Swinson and Richard Melling into the effectiveness of the Assertive Discipline training (Swinson & Melling, 1995). Permission to use the presentation for the current study was granted by the authors.

The PowerPoint presentation consisted of four essential behaviour management strategies for teachers (Swinson & Harrop, 2005). Firstly, always make your requirements absolutely clear. Secondly, remember to look for the behaviour you want rather than the behaviour you do not want. Next, frequently acknowledge students when they are doing what is required. Finally, change the frequency of the feedback to suit the situation.

The purpose of the PowerPoint presentation was to build on the initial feedback discussion, introduce basic behavioural reinforcement strategies based on positive feedback and show how these strategies can improve student behaviour in class and help teachers to manage their classrooms

better. The key point of the presentation was for teachers not to draw attention to those students who were off-task but to praise and positively acknowledge the on-task students next to or near such students. For off-task students, additional strategies suggested were ‘the use of the look’, calmly repeating the directions with name, close proximity, the use of eye contact and reminders of the consequences of inappropriate behaviour.

For the purposes of this study, the researcher edited the original presentation by removing graphics and reducing the number of slides from 105 to 41 (a total of 53 slides for the video training group once the videos were inserted into the presentation). Data and summary results from the 64 baseline observations relating to teacher approval and disapproval were also inserted to replace the data relating to the original author’s study.

The current study also modified the original presentation by the addition of short video clips for Group B training purposes. The PowerPoint presentation shown to Group B participants included several short video clips which depicted actual teachers in their classrooms managing behaviour issues with students of similar ages to the participants. The training given to Group A participants did not include these video clips.

The video clips were obtained from the website www.teachers.tv. Teachers TV is a specialist digital channel for the educational profession transmitted in the United Kingdom providing thousands of educational programmes. This channel and its associated website, where videos can be downloaded, is an extensive teachers’ resource. The “Teaching with Bayley” series of videos feature behaviour management expert, John Bayley, working with teachers to help them improve their classroom technique. Three video clips of 15 minutes in total were edited into approximately one to two minute extracts for the purposes of the Group B PowerPoint presentation.

The key difference between the teacher training for Group A and Group B was that the PowerPoint presentation shown to Group B included several short video clips featuring behaviour management adviser, John Bayley, and the training given to Group A did not include these video clips. During the presentation for Group B, three video clips of approximately 2 min each were shown successively to provide a brief demonstration of typical classrooms 'before' the use of the behaviour management techniques and 'after'. Once each essential step of the programme was discussed the 'after' video segments previously seen were then repeated. Repeating this section of the video served to reinforce how the step could be successfully implemented in the classroom. A longer video segment, of approximately 3 min, from the Teaching with Bayley series entitled "Praise and Preparation" was shown at the end of the Group B PowerPoint presentation.

The training sessions for the teachers were scheduled following the analysis of the baseline classroom observations and required all 17 baseline teachers to attend. Unfortunately, out of the 17 teachers who were observed during baseline, only eleven teachers were available to participate in the training. The trainee teachers were given the opportunity to attend one of two training sessions without knowing which sessions did or did not have video, or that video was the independent variable in this study. Seven teachers chose to attend the first training session, which was the non-video training session (Group A). Four teachers chose to attend the second session, which included the video clips (Group B). Table 2 summarises which teachers participated in the training and the training group they belonged to.

Table 2. *Trainee teachers according to training group.*

Teacher	Training Group A = non-video B = video
LM	A
OR	A
RY	A
TA	A
VS	A
WD	A
CN	A
BA	B
DR	B
SN	B
WI	B

Post-training video observations. Following the training sessions, the video cameras were positioned in the trainee teachers' classrooms to record teacher and student behaviour. It was intended that all trainee teachers would be observed following the training sessions. Unfortunately, only seven of the eleven trainee teachers were observed following the training. This was due to some teachers unexpectedly opting out of the study after the training or the camera co-ordinator neglecting to capture the video that was required. It was intended that equal amounts of post-training video be obtained for each post-training group. However, post-training video was obtained for six teachers from Group A (the non-video group) and one teacher from Group B (the video group). It was also intended that each teacher be captured in equal amounts of video footage. However, from the 13 observations carried out in total for the post-training group, the number of lessons observed for each teacher varied. All of the observed lessons were classroom based. Table 3 summarises the number of lessons observed before and after training for the seven teachers in the post-

training group. The number of students per class for the post-training observations averaged 14 students, with the exception of teacher CN, where the students per class averaged 8 students.

Table 3. *Number of lessons observed during baseline and following training, and average number of students per class, for all teachers from trainee group.*

Teacher and training group	Number of lessons observed for baseline data	Number of lessons observed following training	Average student numbers per class
LM (A)	3	1	9
OR (A)	2	3	14
TA (A)	2	1	13
VS (A)	3	2	14
WD (A)	4	2	18
CN (A)	9	2	8
WI (B)	3	2	16
Total	26	13	

It should be noted that the number of lessons observed for each teacher following the training was less than what we had originally planned. While it was not the intention, it eventuated that the post-training video footage was obtained near the end of the school year and this limited the number of post-training videos suitable for analysis. For example, it was found that the video camera was often scheduled to be recording lessons when end of year tests were due to be conducted. In test situations, teacher and student verbal interactions are limited so it was decided video of such lessons should not be captured. In the last two weeks of school, subjects were rarely taught and many students spent the lesson watching DVD movies or being absent from school for field trips. These lessons were not able to be used for analysis. Overall, the general format of the lessons appeared to be more 'creative' and relaxed than instructional. This led to a marked

reduction in the number of lessons deemed appropriate for recording and subsequent analysis.

Post-training video analysis. Inter observer agreement for post-training videos was carried out in the manner used for baseline videos. The post-training video footage was similarly analysed and scored by the same observer according to the modified OPTIC observation schedule used for the baseline videos.

Results

Inter observer agreement was calculated from observations of two 3 min video segments from five randomly selected class videos. These observations were averaged to calculate overall agreement for teacher behaviour and student behaviour. Average inter observer agreement obtained for student behaviour was 81%. Average inter observer agreement obtained for teacher behaviour was 73%.

For each teacher in the baseline group (n=17), the number of feedback statements delivered during each lesson observed during baseline were averaged across the total number of lessons observed. Figure 1 shows a pie chart which describes the overall proportion of the total teacher feedback, given in each of the four feedback categories, for the baseline group. During the baseline condition, the largest amount of teacher feedback (an average of 59% of all teacher feedback) was negative and directed towards students' social behaviour. Positive teacher feedback for students' social behaviour accounted for an average of 6% of teachers' feedback.

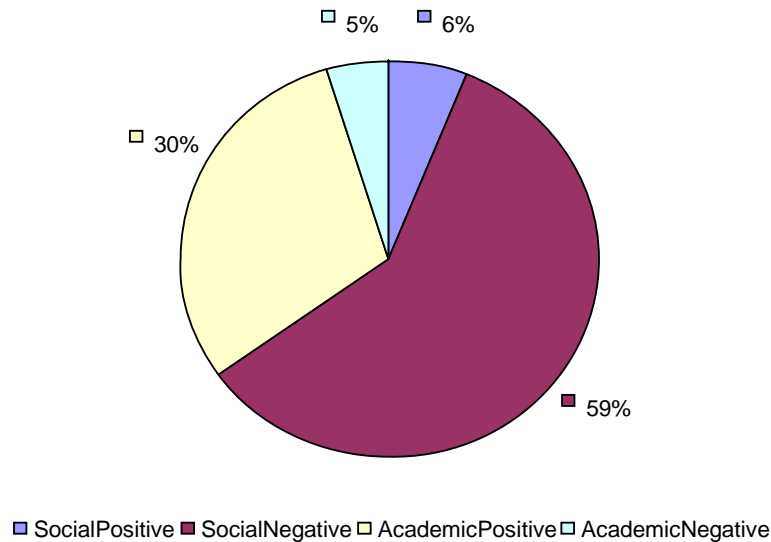


Figure 1. Proportions of total teacher feedback for each feedback category of all teachers in the baseline group.

Figures 2 and 3 are scatter plots which shows averaged baseline data obtained for each teacher in the baseline group. Figure 2 shows the average rate of positive social teacher feedback (per every 3 min observed interval) against average on-task student behaviour. Overall, there is no systematic correlation between these two variables (Pearson's $r = -0.08$, $n=17$). The graph shows that 10 out of 17 teachers from the baseline group responded positively to the social behaviour of their students at an average rate of once every 12 min. For 8 out of 17 teachers no events of positive social feedback were recorded.

Figure 3 shows the average rate of negative social feedback (per every 3 min observed interval) against the average number of off-task students for each teacher in the baseline group. There is a positive correlation between these two variables (Pearson's $r = 0.66$, $n=17$). The graph shows that 9 out of 17 teachers provided negative feedback directed towards the social behaviour of students at an average rate of 2 or more every 6 min.

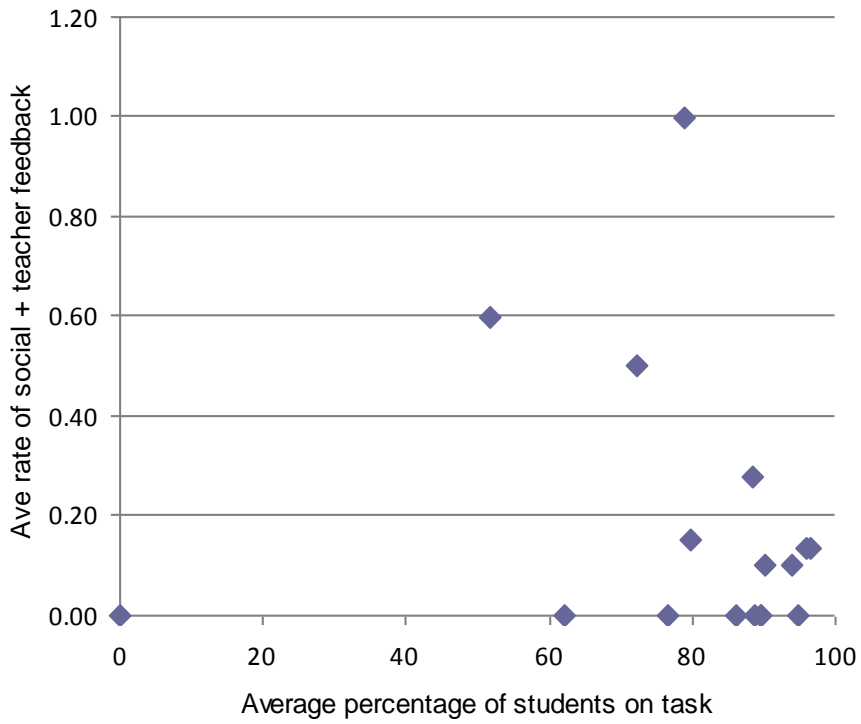


Figure 2. Average social positive teacher feedback per 3 min observed interval plotted against average on-task student behaviour for all teachers in baseline group.

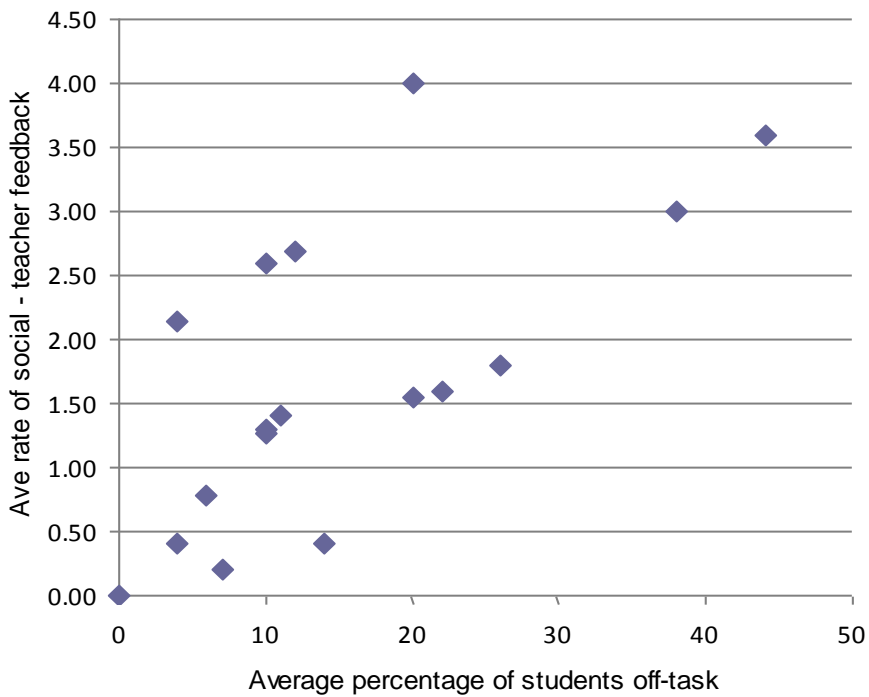


Figure 3. Average negative social teacher feedback per 3 min observed interval plotted against average off-task student behaviour for all teachers in baseline group.

A two group MANOVA was carried out between the post-training group of teachers (n = 7) and the baseline group of teachers over the four categories of teacher feedback. For this test, the degree of freedom = 1 (as there were only two groups). Results indicate that the teachers from the post-training group were no different from those teachers belonging to the baseline group on the basis of the four categories of teacher feedback (Hotelling's $t(1) = 0.05$, $F = 3.157$).

Teacher feedback and student on- and off-task behaviour was examined for each of the teachers in the post-training group (n = 7). The data obtained for these comparisons came from a total of 26 observations made for this group of teachers before the training session and a total of 13 classroom observations conducted following the training session. Results presented from this point relate to the seven teachers from the post-training group (which consisted of six participants from Group A (non-video training) and one participant who had participated in Group B (video training)).

Overall results for feedback of all teachers in the post-training group are summarised in Table 4.

Table 4. *Average positive and negative feedback rate per min before and after training by training group.*

Teachers	Pre/post training	Positive feedback	Negative feedback	N
All trainee teachers	Pre	0.43	0.40	7
	Post	0.20	0.29	
Video participant	Pre	0.09	0.56	1
	Post	0.37	0	
Non-video group	Pre	0.49	0.37	6
	Post	0.17*	0.33	

Seven teachers were observed over a total of 39 observations. These results were obtained by calculating the rate of positive and negative feedback per teacher for every observed lesson, then averaging the rates per lesson across the total number of observed lessons for that teacher. For the following t-tests results there were 6 degrees of freedom ($n = 7$) and the alpha level chosen was a value of .05.

Overall the seven teachers from the post-training group decreased their average rate of positive feedback given per min following training from 0.43 to 0.20 per min (dependent $t(6) = 2.14$, $p < 0.05$). The decrease in the average rate of negative feedback from 0.40 to 0.29 per min was not statistically significant (dependent $t(6) = 0.54$, $p < 0.05$). These changes in teacher feedback are not reflected across both training groups. The Group B (non-video) participants decreased their average rate of positive feedback from 0.49 per min to 0.17 per min (dependent $t(6) = 4.01$, $p < 0.05$) and the one participant from Group B (video) increased their average rate of positive feedback per min from 0.09 to 0.37 per min following training. As there was only one participant in the video condition, statistical tests were not possible. The average rate of negative feedback per min of the teacher from Group B (video) decreased from 0.56 per min to 0.00.

Prior to the training, all teachers from the post-training group were delivering more positive feedback to the academic behaviour of their students than the social behaviour of their students. Table 5 shows that, before the training, on average teachers were providing positive feedback to students' academic behaviour at an average rate of 0.40 per min. In comparison, positive feedback towards social behaviour was being given at an average rate of 0.03 per min.

Table 5. Average rate of positive teacher feedback per min given to academic behaviour and social behaviour for all teachers in post-training group.

Teachers	Pre/post training	Academic	Social	N
All teachers	Pre	0.40	0.03	7
	Post	0.11	0.09	
Video participant	Pre	0.09	0	1
	Post	0.17	0.2	
Non-video group	Pre	0.46	0.03	6
	Post	0.11	0.07	

Following the training, results show that on average teachers from the post-training group continued to provide more positive feedback to academic behaviour (average rate of 0.11 per min) over social behaviour (average rate of 0.09 per min). However, this group of teachers had, on average, increased their positive feedback statements for social behaviour from an average rate of 0.03 per min during a lesson to an average rate of 0.09 per min (dependent $t(6) = 1.41, p < 0.05$). The teacher from training Group B had increased their rate of positive feedback for social behaviour from an average of zero per min to 0.20.

An analysis of the delivery of negative feedback for the teachers from the post-training group shows that the average rate per min of negative feedback for students' academic and social behaviour decreased for Group A and Group B teachers following the training session (dependent $t(6) = 0.54, p < 0.05$) (as shown in Table 6.). The results for the one teacher in Group B (video) illustrate that this teacher delivered negative feedback at an average rate of 0.02 per min towards students' academic behaviour and at an average rate of 0.53 towards students' social behaviour prior to training. Following training, this teacher delivered no negative feedback for students' academic and social behaviour.

Table 6. Average rate of negative teacher feedback per min given to academic behaviour and social behaviour for all teachers in the post-training group.

Teachers	Pre/post training	Academic	Social	N
All teachers	Pre	0.03	0.37	7
	Post	0.01	0.27	
Video participant	Pre	0.02	0.53	1
	Post	0	0	
Non-video group	Pre	0.03	0.34	6
	Post	0.01	0.32	

Figure 4 is a bar graph showing the average percentage of positive and negative feedback given by all teachers in the post-training group to the academic and social behaviour of their students before and after training. The graph illustrates how the percentage of positive and negative feedback was redistributed following training. Before the training, 59.42% of feedback from teachers to students was observed to be negative. Following the training, 48.19% of all teacher feedback was observed to be negative.

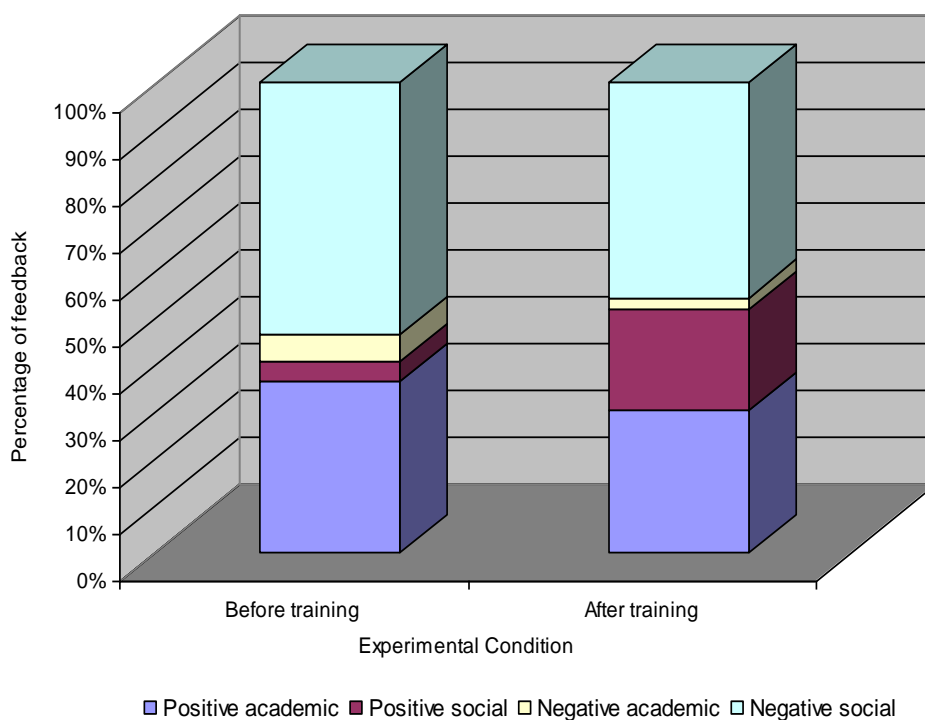


Figure 4. Percentages of positive and negative feedback given to academic and social behaviour before and after training for all teachers in the training group.

Positive feedback had therefore increased from 40.58% to 51.81% of all teacher feedback. The biggest redistribution had occurred in the amount of positive feedback directed at the students' social behaviour, increasing from 4.21% to 21.69%.

For the seven teachers in the post-training group verbal responding in general decreased following the training. Table 7 summarises the average rate of teacher feedback, over all categories of feedback, to students before and after the training (dependent $t(6) = 2.44, p < 0.05$). For teachers in the post-training group, average pre-training rates of responding to all categories of student behaviour with verbal feedback are higher than the average post-training rates.

Table 7. Average rate of all verbal feedback per min given by teachers to all student behaviour before and after training by training group.

	Pre-Training	Post-training	Difference
All teachers N = 7	0.21	0.12	0.09
Non-video group N = 6	0.22	0.13	0.09
Video group N = 1	0.16	0.09	0.07

Table 8 summarises the difference in the average rates of positive and negative feedback delivered by each teacher in the post-training group before and after training (WI was the only teacher from Group B, the video training group).

Table 8. *Difference in the average rate of total feedback in all feedback categories by individual teachers in post-training group, before and after training.*

Teacher (and training group)r	Ave Social +ve	Ave Social -ve	Ave Academic +ve	Ave Academic -ve
CN (A)	0.03	-0.22	-0.30	-0.07
LM (A)	-0.04	-0.38	-0.33	-0.02
OR (A)	0.16	-0.02	-0.33	0.02
TA (A)	0.17	0.97	-0.83	0.03
VS (A)	-0.04	0.03	-0.22	-0.04
WD (A)	-0.05	-0.525	-0.08	0
WI (B)	0.20	-0.53	0.08	-0.02

These rates of individual teacher feedback were calculated from all categories of student behaviour. A desired increase in positive feedback following training is noted by a positive number. If a negative number is listed for positive feedback, this indicates that positive feedback decreased, rather than increased following training. The opposite interpretation applies for negative feedback; a negative number indicates a desired decreased in negative feedback and a positive number represents an undesired increase in negative feedback.

The only teacher to increase their average rate of positive feedback given for students' academic behaviour following training was WI. The remaining six teachers all decreased their average rate of positive feedback. The greatest increase in the average rate of positive feedback given for students' social behaviour was again demonstrated by WI, followed by TA and OR. The teacher to decrease their delivery of negative feedback for academic students' behaviour the greatest was CN, followed by VS. All but one teacher decreased their average rate of negative feedback for students' social behaviour. The greatest reductions were demonstrated by WI and WD.

Prior to the teachers participating in the training, an average of 89.74% of all students across the teachers from the post-training group demonstrated on-task behaviour in class. The students of teacher VS recorded the highest average on-task behaviour percentage at 96.59% and the lowest amount of off-task behaviour at an average 3.41% of students (observed over three lessons). The students of teacher WI recorded the lowest average on-task behaviour percentage at 76.73% and the highest amount of off-task behaviour at an average of 22.32% of students (observed over three lessons).

Following training, an average of 91.32% of all students for teachers from the post-training group demonstrated on task behaviour in class. This represents an increase in average on-task student behaviour of 1.58% (dependent $t(6) = 0.69$, $p < 0.05$). Across training groups, the average on-task behaviour of the students of the non-video group reduced slightly from 91.91% to 91.12%. The average on-task behaviour of the students of WI (from the video group) increased from 76.73% to 92.49%. An analysis of on-task behaviour for each teacher from the post-training group shows that only 2 out of 7 teachers experienced an increase in on-task behaviour following training, being teachers WD and WI. Students of teacher WD increased their average on-task behaviour from 79.67% to 95.50% (observed over one lesson). Teacher WI increased their average student on-task behaviour from 76.73% to 92.49% (observed over two lessons).

Across all teachers from the post-training group, the average amount of off-task student behaviour was 9.77% before the training. This decreased marginally across teachers following the training to 8.48% (dependent $t(6) = 0.74$, $p < 0.05$). An analysis across training groups shows the average off-task behaviour of the students of the Group A (non-video) teachers increased from 7.68% to 8.64% following training. The average amount of

off-task student behaviour of the Group B (video) participant (teacher WI) decreased from 22.32% to 7.5%, a reduction of 14.82%. This was the greatest reduction in average student off task behaviour experienced by an individual. However, 3 out of 7 teachers experienced an increase in the amount of off-task student behaviour following the training. For example, average student off task behaviour for teacher OR increased from 3.83% of all students to 13.72% of all students.

Figure 5 illustrates the distribution of the average on-task, off-task and disruptive student behaviour for teacher WI before and after training. Results show this teacher to demonstrate the greatest amount of desired change in their post-training teaching practices in terms of increasing their rate of positive feedback and decreasing their rate of negative feedback.

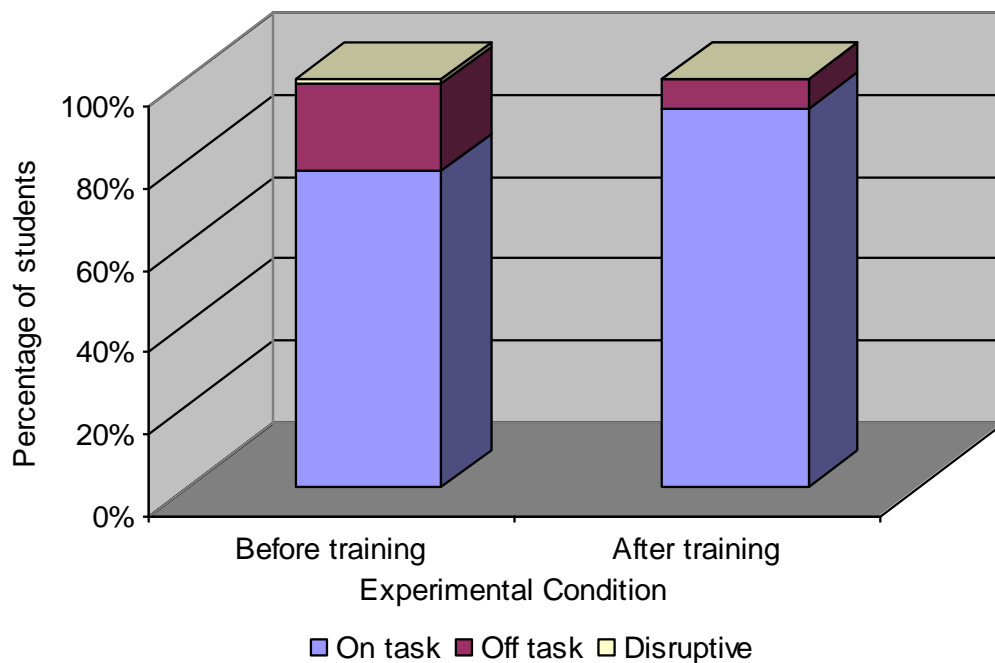


Figure 5. Average amount of on-task, off-task and disruptive student behaviour for teacher WI (video training group) before and after training.

Discussion

The main aim of the current study was to investigate whether the inclusion of video clips during teacher training made any difference to how teachers delivered verbal feedback in their classrooms following training. The overall aim of the teacher training was to increase the teachers' rates of verbal approval and decrease rates of verbal disapproval for the academic and social behavior of their students. If the teachers successfully achieved this aim, it was expected that their students would demonstrate greater levels of on-task behaviour in class following training.

Unfortunately, the results obtained here allow no clear conclusion to be made about the research hypothesis. These results show that, overall, teachers' verbal feedback following training was not changed by the training and that student on-task behaviour did not improve. As there was no overall change in teacher behaviour due to the training for either experimental condition (video and non-video training groups), it is impossible to compare relative amounts of improvement attributable to the different experimental conditions. It is therefore difficult to draw any conclusions on the merits of including video in the teacher training. Possible explanations for this overall finding will be considered later.

It is also difficult to make comparisons between the two experimental groups when only one participant remained in the video group. For example, if an obvious improvement due to the teacher training was observed in both groups, comparing the results of one individual to those of a small group would not give an accurate representation. This issue further contributed to the absence of an observed systematic change due to the teacher training. Although there was an improvement for the single participant in the video group, this finding does not contradict the overall outcome that we cannot draw conclusions from these results.

An alternative way to consider the teacher feedback data is by comparing feedback ratios before and after training. Wheldall et al. (1989) presented two evaluations of the BATSAC training package and reported that teachers used far fewer negatives following training. They also found that teacher feedback ratios for both evaluations indicated a shift to a much greater proportion of positive feedback to negative being given in class for both studies. The mean ratios calculated for teachers in study one increased from 1:1.7 to 1:14.5 (negative to positive) and the mean negative to positive ratio for study two increased from 1:1.8 to 1:16.9 (Wheldall et al., 1989). Mean ratios of negative to positive teacher feedback were examined for the seven teachers in the post-training group in the current study. Overall, the mean negative to positive ratio for all categories of teacher feedback shifted from 1:0.93 (negative to positive) before training to 1:1.40 (negative to positive) following training. In contrast to Wheldall et al., this finding does not indicate a significant shift in the proportion of negative and positive feedback given for student behaviour. Further, the ratios calculated for the current study emphasise the lower rates of teacher responding noted during both the baseline and the post-training conditions compared to the observations of Wheldall et al.

While the ratios calculated for the current study suggest that proportions of teacher feedback did not shift due to training, the results do indicate a reduction in the actual instances of feedback. That is, it appears that overall the post-training teachers decreased the overall amount of feedback given to students following the training (Table 4). The observed decrease in the rate of teachers' negative feedback for both social and academic behaviour was expected, as this supports previous research following similar interventions. However, it was surprising to observe that overall teachers' positive feedback towards students' academic behaviour had also

decreased following training. For students' social behaviour in class, it appeared that teachers from Group A (non-video) and Group B (video) had demonstrated an increase in the amount of positive feedback that was provided following training (Table 5). However, when compared to baseline data this increase is not significant so no actual difference can be identified here. This finding is surprising considering previous research. For example, Swinson and Harrop (2005) reported an increase in the amount of positive feedback delivered by teachers for the academic and social behaviour of students. In the current study, the teacher training included strategies on how to increase positive feedback for appropriate student behaviour and decrease negative feedback. The observed decrease in all feedback following training may be explained by teachers in the current study being hesitant to respond at all to any student behaviour lest it was observed to be negative. It is also suggested that, following the training, some teachers may have still been unclear on how to deliver appropriate approval and praise to their students and for this reason were reluctant to attempt any degree of positive feedback.

It might be argued that the above overall finding is a result of the participants in the current study being dissimilar to the participants who contributed to previous research in this area, particularly with regard to the sort of feedback teachers were providing students prior to the training. However, the percentage of teacher feedback allocated to each category of student behaviour (academic and social) in the current study is similar to the baseline observations of Swinson and Harrop (2005) and of Wheldall and Beaman (as cited in Beaman & Wheldall, 2000). It can therefore be argued that the teacher participants in the current study were comparable to those of the previous investigations with regards to feedback given to students. This can be seen in Figure 6, which shows the proportion of

teacher feedback given to each category of student behavior; light coloured bars indicate the current study and dark coloured bars indicate the Swinson and Harrop observations. Figure 6 illustrates that, for the current study and Swinson and Harrop's investigation, the largest amount of teacher feedback was negative and directed towards students' social behaviour (current study = 59%, Swinson & Harrop = 52%).

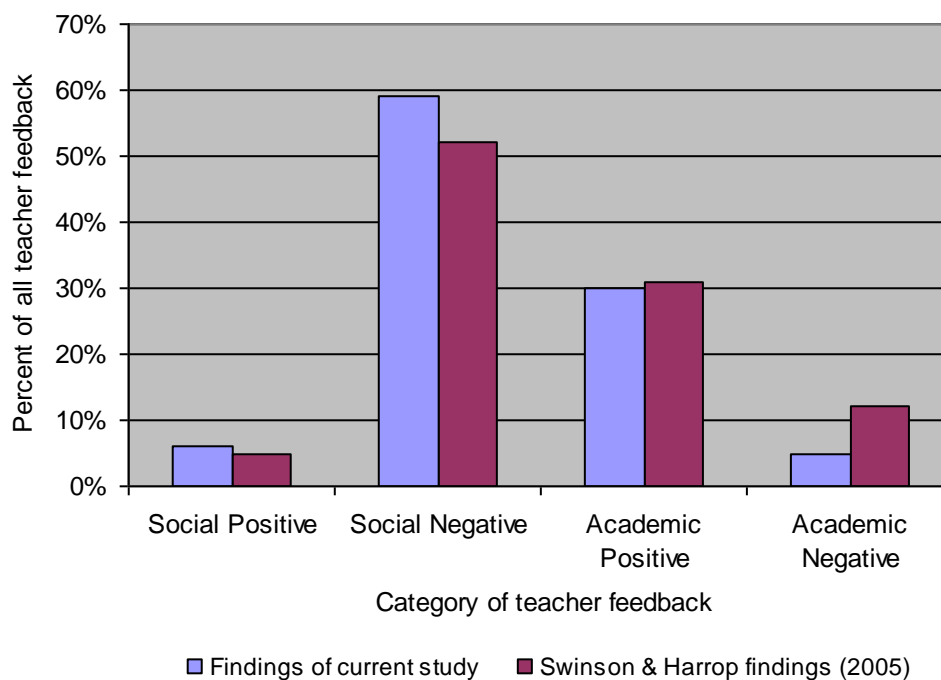


Figure 6. Comparison of baseline data from current study and Swinson and Harrop (2005) data for the allocation of positive and negative teacher feedback to academic and social student behaviour.

Both here and in the previous study, positive teacher feedback for students' social behaviour did not occur very often, accounting for 6% of teacher feedback in the current study and 5% in the Swinson and Harrop investigation. As the two participant groups were similar in regards to the proportions of feedback observed during baseline, it was reasonable to expect that the training intervention of the current study would have a comparable effect to that observed by Swinson and Harrop.

In addition to the present participants demonstrating similar behaviour to those in previous research, it can also be argued that there is some evidence here to support the relationship between increased positive teacher feedback and improved on-task student behaviour as identified by previous research (for example, Swinson & Knight, 2007, Swinson & Harrop, 2005, Wheldall et al., 1989). An examination of the effect of negative social teacher feedback on students' off-task behaviour identified a clear positive correlation (Figure 3). Observations of all 17 teachers in the baseline group indicate that the higher the rate of negative social teacher feedback, the greater the average number of students observed to be off-task. This finding indicates that negative feedback directed towards social behaviour of students in class does not improve student on-task behaviour but, in fact, makes it worse. The inverse relationship identified here (between negative social feedback and off-task student behaviour) appears to indirectly support the above hypothesis that positive social teacher feedback improves student on-task behaviour.

The relation between positive social teacher feedback and student on-task behaviour was examined. We did not find the positive correlation that was anticipated where increased positive social feedback results in increased on-task student behaviour (Figure 2). Instead, data obtained from observations of all teachers in the baseline group indicate that, in general, these teachers were responding with social positive feedback at a very low rate and students' on-task behaviour was inconsistent. Overall, teachers were delivering positive feedback at an average rate of 0.18 instances every three minutes, with eight out of 17 teachers delivering no social positive statements during baseline observations. This finding suggests that there was insufficient social positive feedback occurring to have an impact on student behavior, and there was not enough variation in the amount of

social positive feedback, to produce the effect on on-task student behavior anticipated from previous research.

The absence of an overall training effect might also be explained by the suggestion that the teachers in the post-training group (those who remained in the study) were markedly different from those teachers who had belonged to the baseline group but who withdrew from the study. However, the results of the Hotelling's t test carried out for these two groups confirm that the seven teachers from the post-training group were no different, in terms of how they delivered feedback to their students, to the 10 teachers who had withdrawn. This finding indicates that there was no systematic bias in the group of seven remaining teachers. Therefore, it can be concluded that the seven teachers in the post-training group were representative of the original baseline group on the basis of the four categories of teacher feedback. This suggests that the overall results achieved would not have been different if all 17 original teachers from the baseline phase had continued in the study. Given that the teachers from the post-training group were representative of all original baseline participants, this does not account for the absence of the training effect with the seven remaining participants.

Results relating to the additional aim of the training (the redistribution of teacher feedback towards the academic and social behaviour of their students) did show an effect due to training. Four out of seven teachers successfully increased the amount of positive feedback given for the social behaviour of their students. These results suggest that these four teachers made an effort to correctly identify the desired social behaviour of their students and appropriately reinforce it with positive feedback.

To further examine the differences between the academic and social categories of student behaviour, the ratios of teacher feedback according to

these categories were averaged across the members of the post-training group. It was found that the feedback ratio for student academic behaviour was similar before and after the training. This indicates no shift in how positive and negative feedback was delivered for students' academic behaviour following training. As shown in Tables 5 and 6, prior to training, feedback of post-training teachers to academic behaviour was observed to be delivered at an approximate ratio of 1:13.3 (negative to positive). Following training, feedback of post-training teachers was observed to be delivered at an approximate ratio of 1:11 (negative to positive). The teacher training therefore did not have the intended result of changing the feedback ratios for feedback for students' academic behaviour. The fact that the before and after training ratios of feedback for academic behaviour have remained similar is startling given that the focus of the training was how to reduce negative and increase positive feedback.

However, a shift in feedback ratios was identified for teacher feedback delivered for students' social behaviour. Prior to training, feedback of the post-training teachers to social behaviour was observed to be delivered at an approximate ratio of 1:0.08 (negative to positive). Following training, feedback of all teachers was observed to be delivered at an approximate ratio of 1:3 (negative to positive). This increase in the amount of positive feedback given for students' social behaviour suggests that the teacher training had the intended result, and was successful in changing teacher feedback behaviour in this area.

Issues which affected data collection and video analysis have been identified as potential limitations to this study. Firstly, while it was possible to obtain a total of 26 observations during the baseline phase for the teachers in the post-training group, only 13 observations in total were carried out for these teachers following training. This was, in part, due to

limited time being available for observations as the end of the school year was approaching. It was also discovered that observations which had been carried out were not suitable for analysis as the class was given a task which involved extremely limited opportunities for teacher verbal interaction with students, for example, watching videos or silent reading activities. These observations were therefore excluded from analysis.

Secondly, it could be argued that there was not enough data collected for Group B (video) following the training as observations were only carried out for one teacher from this group. Four teachers had attended the training session which included the video clips. However, post-training observations were only able to be carried out for one of these four teachers. Therefore, it is difficult to draw reliable conclusions about the merits of using video against not using video from the results demonstrated by the one participant who remained in the video group. A comparison between the two groups could have been made if the video group of teachers had included the originally intended participants

The training intervention for the current study was based on the Swinson and Harrop investigation (2005). The number of participants for that study was 19 compared to seven in the current study. It is acknowledged that when N is small, it may be more difficult to detect effects. Despite efforts to obtain the effect size data for the Swinson and Harrop paper, this information is not available. As the effect size from the previous study is not known, it is impossible to know the group size we ought to have had in the current study in order to refute or support the findings of the Swinson and Harrop investigation by detecting a similar size effect. Given this lack of information, it remains unclear whether the group size used in the current study would have detected the effects found by Swinson and Harrop (2005). However, considering a comparison between

the post-training teacher feedback ratios of 1:14.5 and 1:16.9 (negative to positive) observed by Wheldall et al. (1989) and the post-training ratio calculated here of 1:1.4, it would not appear that the results obtained in the current study would be likely to identify a similar effect size.

Given the overall absence of a training effect, it is useful to consider whether any part of the teacher training could have contributed to the absence of the predicted outcome. There does not appear to be any evidence to suggest that that the training that was developed and delivered to the teachers could have contributed to the limited uptake of training recommendations. This is because the training utilised for the current study had been developed and evaluated in a previous study (Swinson & Harrop, 2005) which had demonstrated successful outcomes. While the presentation was modified for the current study, the modification was limited to reducing the number of PowerPoint slides and graphics used in the presentation together with inserting data relevant to the current study's participants. The delivery of the training to the participants also followed the method prescribed in the original Swinson and Harrop paper in terms of the length of the training session, opportunities for questions to be asked and scheduling the training session during the school day. There is no theoretical rationale that suggests these changes in the delivery of the training would lead to any difference or changes of behaviour.

While overall results suggest an absence of training effects, individual results show that one teacher from Group B (video) successfully implemented all recommendations from the training. This teacher, WI, increased the amount of positive feedback and decreased the amount of negative feedback delivered for their students' behaviour following training. Teacher WI also successfully changed their feedback ratio for academic behaviour from 1:4.5 to 0:17 (negative to positive) and their feedback ratio

for social behaviour from 0.53:0 to 0:2 (negative to positive). The change in teacher WI's verbal feedback in class is positively related to the increase in the number of on-task students, from 76.73% prior to training to 92.49% following training (Figure 5). The resulting improvement in student on-task behaviour for teacher WI supports previous findings (Wheldall & Merrett, 1985, Wheldall et al., 1985; Wheldall et al., 1989; Swinson & Harrop, 2005, Swinson & Knight, 2007). The fact that the teacher training in the current study brought about this change in one teacher's feedback behaviour suggests that it is not the training per se that is ineffective. It would be of interest to investigate whether any particular characteristics of this teacher could be identified to explain why the results achieved by this individual were not demonstrated by the other teachers in the study.

The anticipated effects of the teacher training was that teachers would increase the amount of praise and positive feedback given for students' behaviour during class and that teachers would experience an improvement in the number of on-task students. This outcome was expected as the training material was based on a previous successful intervention in the work of Swinson and Harrop (2005). However, these anticipated effects were not observed in this study. As discussed above, the lack of training effects does not appear to be related the participants in the current study being dissimilar to the participants who contributed to previous research, nor the fact that the teachers belonging to the post-training group were markedly different from those teachers who had belonged to the baseline group. Interestingly, for one participant behaviour had changed in the manner anticipated thus removing any suggestion that the teacher training was, in principle, unable to bring about the desired change. Given this interpretation, it is not clear what factors relating to the teacher training intervention may contribute to successful outcomes. It is

suggested that issues beyond the teacher training require further consideration.

Phase 2

The literature review presented in the introduction of the current study provides evidence that when the type and rate of teacher feedback is altered to provide increased appropriate positive feedback to their students, those students' on-task behaviour improves. This outcome can be achieved when teachers have training opportunities which teach positive teaching practices, such as praise for desired behaviour (for example, BATSAC, Wheldall et al, 1989).

The current study investigated whether the addition of video footage equalled more effective teacher training in addition to demonstrating the relationship between increased positive teacher feedback and student on-task behaviour. A comparison of the pre- and post-training data from the study shows that there was no significant increase in teachers' rates of positive verbal feedback and the on-task behaviour of students did not increase as was predicted. The results obtained indicate a lack of uptake of the recommendations from the training session and make it difficult to draw a conclusion as to the relative effectiveness of the addition of video footage to the training. This observation suggests that, in the current study, the training provided to the teachers had no overall effect on how they delivered their feedback to students in class.

Many studies reviewed for this report included elements of post-training activities. The successful outcome of these previous studies suggests that carrying out post-training activities may be an important distinction to ensure an effective teacher training package. The training programme used in the current study did not include any post-training activities and this may explain the limited effectiveness of the teacher training in this study. Examples of post-training activities are provided in the Rules, Praise and Ignoring investigation previously discussed (Madsen et al., 1968). The

participants attended weekly seminars where problems and suggested solutions could be discussed. The researcher also took on a supervisory role, giving suggestions on possible alternative teacher behaviour in specific situations based on their observations. The weekly seminars and ongoing presence of the researcher served to provide the training participants with continued support while they attempted to implement the training recommendations.

The BATPACK training package (Wheldall & Merrett, 1985) demonstrates additional examples of post-training activities. Participants in the BATPACK training were required to sign a behavioural contract by which they committed to attend all training sessions and complete all training related tasks. This suggests that such contracts are useful post-training tools because they hold participants accountable to their original commitment to the training programme and achieving mutually agreed outcomes. On completion of the BATPACK training, all participants complete a questionnaire. This questionnaire is also a useful post-training exercise as it provides teachers with the opportunity to suggest improvements for the training package. Similarly, teachers can reflect on their experience of the training and consider how successful they have been in implementing the training recommendations. Participants' feedback is then used to develop and refine the course.

The role of post-training activities has been investigated by organisational psychology research on workplace training and has highlighted the role of post-training supervision to ensure transfer of training. Training transfer refers to an individual's successful application, generalisation and maintenance of newly acquired skills to their workplace (Saks & Belcourt, 2006). Achieving transfer of learning is clearly the ideal outcome of training but this may not be a necessary outcome of a training

exercise. Saks and Belcourt (2006) identify that a major advantage of post-training supervision is that it can be used to assess and monitor the extent of transfer from the training process. Post-training support is therefore a vital component of any training exercise. Post-training activities can be delivered at an individual level, for example, one-to-one feedback. They can also be coordinated from an organisation-wide level in the form of ongoing support from superiors.

A review of general training literature lead Saks and Belcourt (2006) to conclude that organisational support may be the most important post-training activity. This support can be demonstrated via revised management policies and procedures. Social support from colleagues following training is also important. In particular, Saks and Belcourt note that buddy systems and group sessions to discuss progress can be especially useful in the period following training programmes. The review also highlights how supervision is an important post-training activity. The supervisor can provide feedback and encouragement to the trainee and ensure there are sufficient on the job opportunities for the application and practice of newly acquired skills. Saks and Belcourt highlight that meetings with supervisors where the relevance of training and training goals are discussed may help ensure accountability for how trainees use training materials and recommendations. Overall, training literature agrees that post-training activities must be carried out. Specific tools such as revised procedures, post-training discussions and opportunities for supervised practice all facilitate a change in the individual's workplace behaviour following training that can be successfully generalised and maintained.

Like the organisational literature, education research has also considered post-training activities and has identified benefits of incorporating such activities into teacher training packages. Guskey (1998)

recognises how continued support is important for teacher training: “It is the follow-up, the support, and the ongoing, professionally embedded assistance that makes the real difference in successful professional development.” (p. 2). It has been suggested that post-training activities emphasise that teacher training is not a singular, detached event but an ongoing process (Guskey, 2002). Guskey further notes that it is a process which involves long term commitment and may require a change in teachers’ attitudes and beliefs. It is suggested that if the teacher training programme is promoted as being a continual process, teachers may be encouraged to persevere in their behaviour change and to master a new approach to their classroom practice. Secondly, post-training activities recognise the importance of continuing support for the teachers (Guskey, 2002). This support could be the key factor when teachers attempt to implement their newly acquired skills and knowledge into their classrooms. Guskey also recognises that continued support is required in order for teachers to successfully integrate their new skills into their existing practice.

Ball (as cited in Wilson & Berne, 1999) agrees that the most effective teacher training packages involve post-training activities, including encouraging engagement with other trainees and providing guidance for teachers through observations in classrooms following training. This indicates that the role of the supervisor, as discussed in organisational psychology literature, is also relevant for teachers following training. For example, teachers may be more likely to change their behaviour and practice if goals are set which they are held accountable to and if they are provided with feedback and encouragement by their supervisor. Rose and Church (1998) identified that teacher training programmes which included frequent feedback on teacher performance following training “consistently

produced improvements in the classroom skills targeted for training” (p. 19). This led Rose and Church to conclude that supervision which includes feedback following training is required for any teacher training programme. While the critical role of post-training activities have been recognised in the literature, Guskey (1986) identified this as the most neglected aspect of teacher training available to schools. He argued that quality follow up is essential if in-service training for teachers is to achieve the multiple benefits it promises.

Organisational psychology and education literature, such as that reviewed above, agrees that post-training activities are important for the training process to be successful. A range of post-training strategies have been used in previous studies of behavioural interventions in classrooms including post-training discussion groups, using a supervisor to monitor how trainees implement new skills in class, signing a pre-training contract and the completion of a questionnaire.

Given that post-training activities are recognised as necessary for effective training programmes, the second phase of this study included strategies that were not included in Phase 1 to be implemented after a further training session. The second phase of the current study questions whether the training outcomes from the first phase might be improved if we include post-training activities in the original training programme. Each of the post-training components to be implemented in Phase 2 of the current study were suggested following a further review of previous research included in this study. The post-training strategy for Phase 2 comprised of a participation agreement between each participant and a nominated supervisor and scheduling lessons for supervised practice following training which included discussions with the supervisor where feedback could be given. Following a further teacher training session, and the implementation

of these post-training components, it is hoped that the lack of training effect observed in Phase 1 of the study will be overcome. As a result, it may be possible to resolve whether including video in teacher training leads to improved training outcomes in terms of teacher behaviour change.

Method

Participants

The participants in this study were four classroom teachers from the same secondary school as Phase 1 of the current study. This group of teachers were selected as participants because they were suggested by the school's deputy principal and they had agreed to undertake training and be observed in their classrooms before and after the training. It was explained to the participants that the study would involve the author attending their lessons to make observations and that they would be required to attend one training session followed by further observations of post-training lessons they delivered.

Materials

Baseline classroom observations were analysed utilising the same adaptation of Observing Pupils and Teachers in Class (OPTIC) (Merrett & Wheldall, 1986) as used in Phase 1 of the current study. The training component of Phase 2 of the current study utilised the version of the training presentation which included the video clips (as shown for Group B in Phase 1 of the current study). The follow up component of Phase 2 required individual participation agreements for each teacher.

Procedure

Participation agreements. Individual participation agreements were drawn up for each of the four teachers participating in Phase 2. Each agreement summarised the participant's involvement in Phase 2 of the study and what was expected of them as participants. Each participant was asked to read through the agreement and sign it. Signing the participation agreement intended to recognise an form of contract between the

researcher and the participant and documented the participant's commitment to the project. The participation agreement specifically requested that the teachers use their best endeavours to implement the recommendations of the training. An example of the participation agreement is attached as Appendix C. Each teacher signed the participation agreement prior to Phase 2 of the study.

Pre-training observations: Whereas Phase 1 of the current study deviated from the OPTIC schedule method and used video to record teacher and student behaviour, Phase 2 of this study used observers placed in the classroom as included in the original OPTIC model. After an examination of each teacher's timetable, the teacher and observer agreed which lessons would be most suitable for observation purposes. At the beginning of each nominated lesson, the observer positioned themselves in the teacher's classroom in the best location to observe and take data on teacher and student behaviour. As with the observations for Phase 1 of the current study, data from the middle 30 min of each lesson was obtained and categorised for analysis according to the OPTIC schedule.

Baseline information was obtained by observing each of the four teachers during two lessons to achieve a total of eight separate observation sessions. Class numbers for the pre-training observations averaged 20 students.

Training the teachers. The training sessions for the teachers were scheduled following the analysis of the pre-training classroom observations. Whereas the training session was delivered to all teachers in a group setting for Phase 1 of the current study, the training for Phase 2 was conducted with each individual teacher on a one to one basis.

All teachers involved in Phase 2 of the study received identical training in that the training was part of an in-service day and lasted approximately

one hour. All training sessions were delivered by the researcher. Training followed a similar format to Phase 1 of the current study; feedback was given to each teacher based on the pre-training lesson observations and comparisons with previous research were made. All teachers were shown the video clip version of the PowerPoint presentation.

Post-training follow up activities. For each observation session after the training, the author and the teacher conducted one-on-one discussions for training follow up purposes. Issues discussed during these discussions were based around how the participant was finding implementing the strategies and suggestions from the training. For example, the teacher was asked whether they had noticed more opportunities to provide positive acknowledgement and praise since the training session and were they confident in delivering appropriate approval. Two follow up discussions in total were held for each teacher.

Post-training classroom observations and data analysis. Once the training session was completed, the author and each teacher agreed when to conduct follow up observations. The observer returned to the participants' classrooms in order to observe and record the teachers' post training verbal feedback together with their students' on task behaviour. All of the observed lessons were classroom based and were the same classes as had been observed to obtain the baseline data. Post-training data was obtained of for all four teachers over eight separate lessons. Class numbers for the post training observations averaged 21 students. The data obtained during post-training observations was similarly analysed and scored by author according to the modified OPTIC observation schedule used previously.

Results

Inter observer agreement was calculated from observations of one lesson for each of the four teachers. During each of these lessons, inter observer data was obtained for 15 min of student behaviour and 15 minutes of teacher behaviour. These observations were averaged to calculate overall agreement for teacher behaviour and student behaviour. Average inter observer agreement obtained for student behaviour was 79%. Average inter observer agreement obtained for teacher behaviour was 90%.

Post-training data is not available for two of the four teachers from the Phase 2 participant group. The post-training observations scheduled for teacher MM were test situations so the amount of teacher verbal feedback statements was unusually low and therefore these lessons were excluded from analysis. Teacher DR advised that he did not wish the post-training lessons that were observed at the end of term to be used for analysis as his preference was to begin using the strategies in the new term. For the remaining teachers in the Phase 2 group ($n = 2$), the two sets of classroom observation data, pre- and post-training, were compared according to positive and negative verbal teacher feedback and student on-task and off-task behaviour.

For each teacher the amount of feedback statements delivered during each lesson were averaged across the total number of lessons observed for that teacher. Overall results for all categories of feedback for both teachers in the Phase 2 group are summarised in Table 9.

Table 9. Average positive and negative feedback rate per min before and after training by each teacher in Phase 2.

Teacher	Pre/post PD	Positive Feedback	Negative feedback
WI	Pre	0.73	0.47
	Post	1.53	0.17
MS	Pre	0.43	0.13
	Post	0.93	0.07

Comparisons of pre- and post-training data indicate that positive feedback increased and negative feedback decreased for both teachers following training. Results also indicate that teachers' verbal responding in general towards students increased following training (due to the amount of increased positive feedback for both teachers). For all teachers, across all categories of feedback, responding increased from an average rate of 0.88 per min to 1.35 per min.

Figure 7 is a bar graph with two Y axes; the left Y axis is the average rate per min of all positive teacher feedback and the right Y axis is average percentage of students on-task.

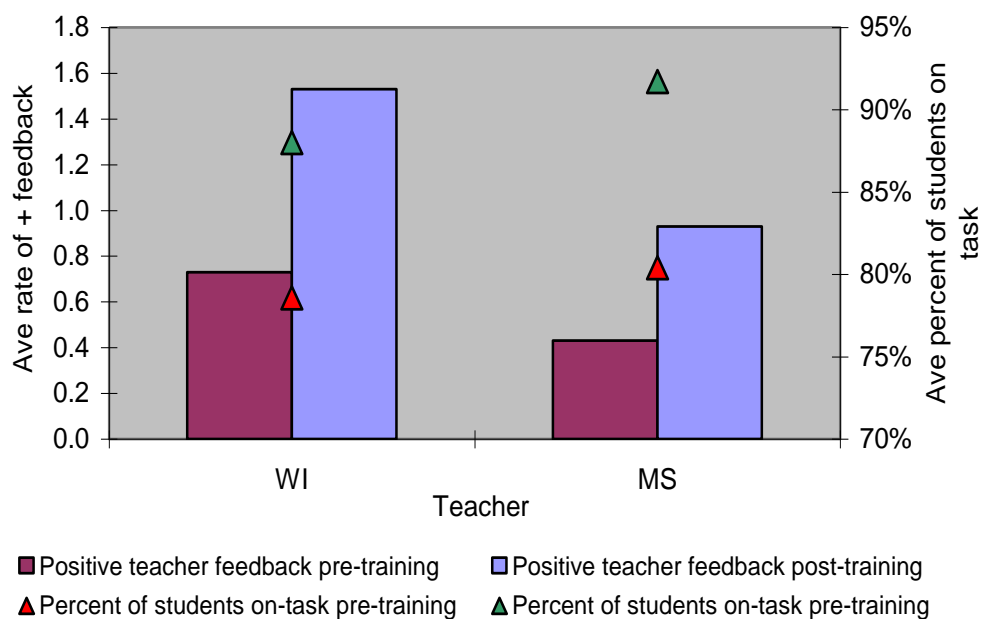


Figure 7. All average positive teacher feedback and average on-task student behaviour before and after training for teachers WI and MS.

Figure 7 shows the average rate of positive teacher feedback per min and the average on-task student behaviour before and after training for teachers WI and MS. Results indicate that teacher WI increased their rate of positive feedback from an average of 0.73 per min to 1.53 per min and an increase in the average number of on-task students from 79% to 88% following training. Teacher MS increased their rate of positive feedback from an average of 0.43 per min to 0.93 per min following training. Average on-task behaviour for students of teacher MS increased from 80% to 92%.

As information is only available for two teachers from Phase 2 it is not possible to construct scatter plots as were presented in the results for Phase 1 of this study.

Mean ratios of negative to positive teacher feedback were examined for the two teachers in the Phase 2 training group. Before the training, the mean negative to positive feedback ratio for all categories of student behaviour was 0.6:1.2 (negative to positive). Following the training, the mean ratio was 0.2:2.5 (negative to positive).

Discussion

The primary aim of Phase 2 of the current study was to determine whether the training outcomes from the first phase might be improved if post-training activities were added to the original training programme. Signing participation agreements and post-training discussions with trainees to provide support were the two specific post-training activities implemented in Phase 2.

It is not possible to draw overall conclusions about the merits of post-training activities from the results of Phase 2 as pre- and post-training data was only able to be obtained for two teachers. Two participants were lost from the Phase 2 group despite best endeavours in terms of post-training activities to encourage participant retention. This illustrates that the difficulties experienced in Phase 1 due to class timetables and teacher compliance continued to be an issue in Phase 2. As will be discussed later, such difficulties appear to be related to how externally developed teacher training is delivered within a school.

However, the results analysed for the two remaining teachers from the Phase 2 training group appear encouraging. Following Phase 2 training, both teachers demonstrated an increase in the number of positive feedback statements delivered for students' behaviour together and an improvement in the average number of on-task students.

Whereas the results for overall participants in Phase 1 indicate a reduction in the average rate of positive feedback given per min for student behaviour, the two teachers in Phase 2 increased their average rate of positive feedback following training (Figure 7). In post-training observations, teacher W1 delivered positive feedback at an average rate of 1.53 per min. This is the highest rate of positive feedback recorded in the entire study. Figure 7 also shows that the students of the two teachers in Phase 2

demonstrated increased levels of on-task behaviour following training.

On-task behaviour for teacher MS improved by 12% to achieve an average of 92% of all students being on-task.

Table 9 shows that the overall level of teacher verbal responding for all categories of feedback to students' behaviour following training in Phase 2 is higher than in Phase 1. This result indicates that teachers in Phase 2 maintained their rate of responding after training while Phase 1 teachers did not. It is suggested that the post-training discussions with teachers helped them correctly identify the type of student behaviour they wanted to encourage and may have enabled the teachers to be more confident in delivering appropriate positive feedback for such behaviour.

Mean ratios of negative to positive teacher feedback were also examined for the two teachers in the Phase 2 training group in the current study. While not achieving the shift in post-training ratios of Wheldall et al. (1989), the post-training ratio calculated for Phase 2 participants (0.2:2.5 - negative to positive) did improve on the post-training ratios calculated for Phase 1 participants (1:1.40 - negative to positive).

The results obtained here may be attributed to the post-training activities incorporated into the training programme. This outcome appears to support the model of teacher development proposed by Guskey (2002). Rather than using training packages which propose altering teacher practices to shift teacher attitudes, Guskey states that changes in teachers' attitudes occur after witnessing improvements in student learning. Guskey's model emphasises that it is not the training package itself that changes teacher attitudes but the teacher's experience of successful implementation of the training recommendations.

Results from Phase 2 indicate that training aims were achieved in terms of increased positive teacher feedback and on-task student behaviour

following training. That training recommendations were successfully implemented here and not in Phase 1 may be attributable to the participation agreement and post-training discussions organised as post-training activities. It is proposed that training outcomes may be improved if post-training activities which provide follow-up support are put into practice.

General Discussion

Traditional evaluations of behavioural interventions in classrooms implicitly assume that every unit of improvement in behaviour is of equal value. Applying these assumptions to the results presented in the current study suggests that the outcomes achieved here are of little significance. However, this study challenges this assumption and suggests that not every incremental increase has equal value. While the improvements identified in Phase 1 and 2 were small, the argument that every improvement in behaviour is not of equal value suggests that these small changes may have more value than initially understood. A quote from one of the teachers involved in this study supports the argument that even if observed improvements are small, they may have great value from the teacher's perspective:

“The lesson that you observed was the first one in which the student put up their hand and asked for assistance, and it was also the first lesson in which the student wrote more than a one sentence response to a question. These two behaviours both represent major movement for the student, even though they sound pretty minute in the grand scheme of teacher expectations.”

From observations and post-training discussions with teachers during Phase 2, it is clear that when student behaviour demonstrates a small improvement, the impact on the individual teacher is much greater than the quantified change in behaviour.

Similarly, when analysing changes in the on-task behaviour of students, it was initially thought that each incremental increase in the amount of on-task behaviour would represent the same value of improvement. At the conclusion of this study, it is not clear that this is necessarily so. To illustrate, it might not be a high priority for the teacher to ensure that the

class who is on-task 95% of the time improves so that they are on-task 100% of the time. This situation suggests some sort of diminishing returns which recognises that, after a certain degree of success in achieving a goal has been reached, increased efforts towards that goal do not warrant the decreasing gains in value. However, in the opposite situation, a 5% increase in on-task behaviour for the class who are on-task 0% of the time represents a considerable improvement. In this scenario, it is clear that any increase, regardless of size, from 0% is in the best interests of the teacher, given how aversive an unmanaged classroom is. It should be noted at the conclusion of this study, that the small changes that were identified were perceived to have more value than was anticipated at the beginning of the study. If it is acknowledged that, following a behavioural intervention, every unit of increase in improvement may not represent equal value of behaviour change, then assessors of future interventions in classrooms need to take this into account when setting their criteria for success.

The initial improvements following a behaviour change intervention discussed above are also important when considering how to achieve teacher compliance for implementing training recommendations. For example, if a teacher has been trained to use new skills and strategies to enhance their classroom management, when they subsequently use these skills and strategies in class the teacher is encouraged if they see improvement in students' behaviour. Such improvements following training represent a reinforcing event for the teacher related to the implementation of new skills. As a result, the future likelihood of the teacher continuing to comply with the training strategies is increased.

This relationship between the teacher utilising new skills and seeing improvement in behaviour shows that, for the period of time immediately following training, the small initial changes experienced by the teacher may

be necessary for the future success of the entire training programme. It is particularly important for the instructor who is delivering the training programme to realise the importance of the initial improvements made by the teacher in order to achieve ongoing teacher compliance with the training programme. Further, the assessment of whether an intervention for classroom behaviour has been successful should consider that it might well be the relative value of change not the actual amount of the change which is important. The value of small 'wins' for the classroom teacher is reflected in the following quote:

"The reflection your presentation encouraged meant I put in a little extra effort, and also that I noted these two small 'wins' for what they were. I don't know if this is terribly useful to you, but your work facilitated a tangible, important improvement in my on-going relationship with that student."

Recognising initial improvements in behaviour and small 'wins' is also crucial when considering how to achieve enduring behaviour change. For enduring behaviour change to occur, a gap must be bridged between behaviour which is rule-governed and behaviour which is self-sustaining, that is under contingency control. Small, initial improvements achieved when the new behaviour is performed according to an instruction are said to be rule-governed, and are not under the control of natural contingencies. If the new behaviour, which is under the control of rules leads to positive consequences in that setting, this may be sufficient to 'trap' the new behaviour and encourage this behaviour to continue in the absence of any instruction or further rule following. As a result, the behaviour persists as it is being reinforced by the natural contingencies of the setting. Small 'wins' experienced by the teacher are crucial to help bridge the gap from rule-governed behaviour to that which is maintained by natural contingencies.

This process of moving from rule-governed to contingency governed behaviour also emphasises the need for post-training support to ensure that the training strategies are being implemented by the teacher in the classroom successfully so that positive consequences are experienced. Given this argument, ongoing support following training may be considered as essential to facilitate the transition from rule-governed to natural contingency governed behaviour. The improvements experienced which enable the behaviour to be considered contingency governed rather than rule-governed are highly valued in the behaviour change process. This further supports that all units of improvement do not have equal value in terms of achieving enduring behaviour change.

Teachers may sometimes find it difficult to establish positive relationships with students due to behaviour issues. For example:

“After your presentation I found myself thinking about how I deal with the least sympathetic member of 9HU. I find this student is often rude, uncommunicative and off-task. The presentation pushed me to give this student more time and attention than I might normally and to re-evaluate whether or not I have seen any behavioural change.”

This quote, raising another issue for teacher training which requires consideration, relates to the potential barriers to positive relationships in class. The aim of the “4 Essential Steps” training presentation was to increase teachers’ positive feedback and praise for appropriate student behaviour during class in the shortest time possible. It follows that if teachers are delivering appropriate and sincere praise and ‘being nice’ to students, then positive relationships between the teacher and students can be achieved. However, it is suggested that the “4 Essential Steps” package used for this study did not recognise that sometimes teachers experience

barriers to 'being nice' to students who have been difficult in the past. The above quote from one teacher in this study reflects this concern. The teacher's inability to give positive feedback to such students remains a barrier to successful implementation of training recommendations. This may not be surprising, given that the teacher training did not acknowledge such barriers, and how to manage such barriers or overcome negative relationships was not addressed in the presentation. It is suggested that future teacher training packages consider potential difficulties for teachers when implementing training strategies and troubleshoot these potential difficulties during the training phase as well as providing follow up support and supervised practice.

Much of the previous research reviewed for this study was characterised by a training programme imposed upon a school that was delivered by an organisation from outside the school. This is not necessarily a flawed strategy for teacher training. However, as seen in the current study, this strategy may encounter difficulties. Issues relating to the video recording of classrooms, teachers unexpectedly opting out of the study at various points and scheduling training according to busy teacher timetables have highlighted the extent to which delivering training programmes for teachers which are brought in from outside the institution can be problematic. If a training programme is to be effective, it is vital that the training co-ordinator secures the support and co-operation of the school management and the teacher participants. However, this is not guaranteed. It is therefore suggested that the most desirable scenario is for each school to carry out their own teacher training programme thereby avoiding some of the difficulties identified here. It is proposed that this strategy for teacher training may increase the effectiveness of the programme in three specific ways. Firstly, a training programme modified within a school to be relevant

to the teachers and students of that school may result in increased teacher engagement and encourage greater commitment to achieve the training aims. Secondly, if a school develops and funds the teacher training package, it becomes a stakeholder in the teacher training process with a vested interest in successful outcomes. Finally, if teacher training is developed and administered from within the school, support is readily available and there are increased opportunities for supervised practice to ensure successful acquisition and maintenance of new skills.

Swinson and Harrop (2005) concluded that their short course for teacher training was just as successful as longer training packages in terms of achieving behaviour change. In this way, short training courses were argued to have advantages over the longer courses in terms of monetary costs and resources saved. However, it should also be considered that short courses, such as that developed by Swinson and Harrop, still require consideration of elements beyond the training package itself. With a short course, it is not as necessary for the participants to demonstrate ongoing commitment to the training aims. As a result, there may be an increased likelihood of teacher disengagement and non-compliance and few strategies from the training may actually be attempted in the classroom. Therefore, it is suggested to be particularly important to provide post-training follow up for teachers after a short training course in order to support them when implementing new skills and ensure they experience success when implementing training recommendations.

In spite of the inevitable difficulties, this study has highlighted a number of interesting issues for the implementation of training packages for teachers. Issues have been identified related to achieving teacher compliance, being aware of potential barriers teachers may face when implementing training strategies and how delivering training programmes to

schools can be problematic. These three points all identify underlying elements of training which are beyond the actual training package and may be easily overlooked. Some training packages do not explicitly incorporate these elements but nevertheless they are essential in order to achieve robust and effective training. This emphasises that no matter how good the teacher training package might be in theory, in reality the 'package' alone is necessary but not sufficient to bring about enduring behaviour change in the classroom.

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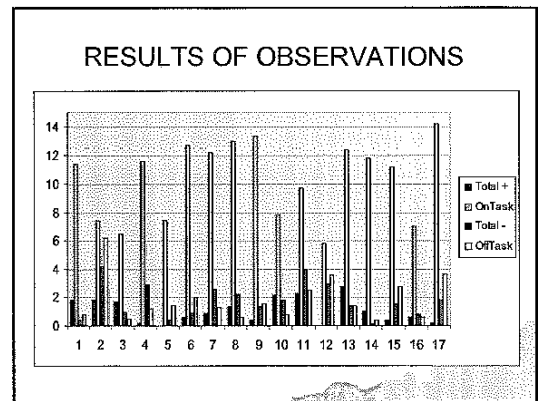
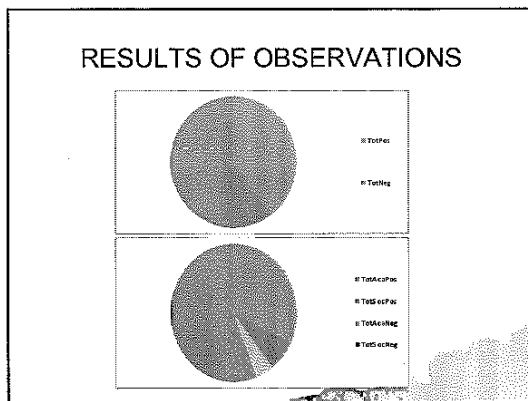
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Section B: Student behaviour: 15 min

On task and off task behaviour
 TS= Target Student

Observation	Class Groups	On-task	Off-task	Disruptive	Percent on-task
1	1				
	2				
	3				
	Total				
2	1				
	2				
	3				
	Total				
3	1				
	2				
	3				
	Total				
4	1				
	2				
	3				
	Total				
5	1				
	2				
	3				
	Total				

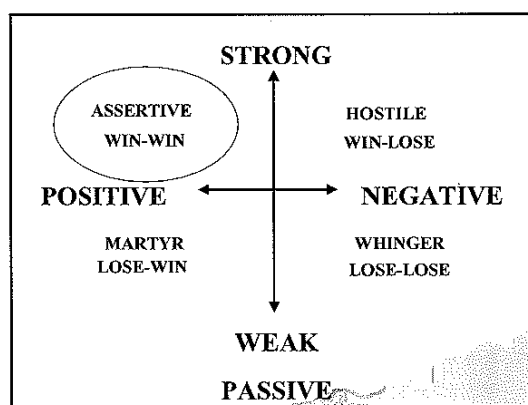


- ◆ Results show:
 - positive feedback reserved for students' work,
 - negative feedback generally directed towards pupils' behaviour.

- ◆ Very little, if any, positive feedback directed towards pupil behaviour. This reflects previous research findings

Today's programme developed by Jeremy Swinson (as a PhD student) Richard Melling, Educational Psychologist and Mike Cording, formerly the head of a school for children with Emotional and behavioural Difficulties, presently a behavioural consultant.

THE GOAL
 Reactive teaching style → proactive / positive teaching style



MANAGING BEHAVIOUR

4 Essential Steps

STEP 1 - Always make your requirements absolutely clear

STEP 2 - Remember to look for the behaviour you want rather than the behaviour you don't want

STEP 3 - Frequently acknowledge children when they are doing what is required

STEP 4 - Change the frequency of the feedback to suit each situation

* STEP ONE *

Always make your requirements absolutely clear

GUIDELINES FOR TEACHING YOUR REQUIREMENTS

- ◆ Keep the requirements simple - limit the number.
- ◆ Requirements must be observable.
- ◆ Requirements must relate to how the pupil is to participate in the activity.
- ◆ Requirements must relate to how the children behave in order to be successful.

REMEMBER M.I.N.C.

- ◆ M (aterials) the child needs.
- ◆ I (in or out of seat)
- ◆ N (oise level) expected
- ◆ C (ommunicate) with the teacher

TEACH REQUIREMENTS FOR EACH SITUATION

- ◆ State your requirements
- ◆ Question students for understanding
- ◆ Roleplay with students
- ◆ Repeat your requirements as required

* STEP ONE * - RECAP

Always make your requirements absolutely clear

STEP 1 - Always make your requirements absolutely clear.

STEP 2 - Remember to look for the behaviour you want rather than the behaviour you don't want

STEP 3 - Frequently acknowledge children when they are doing what is required

STEP 4 - Change the frequency of the feedback to suit each situation

* STEP TWO *

Remember to look for the behaviour you want

rather than the behaviour you don't want

USING FEEDBACK FOR APPROPRIATE BEHAVIOUR TO GET CHILDREN ON TASK

- ◆ Give requirements
- ◆ Look for students following requirements
- ◆ Say name, repeat requirements and use an approving comment

KEEPING STUDENTS ON TASK

- ◆ Consistent feedback for appropriate behaviour
- ◆ Scanning
- ◆ Circulating the room
- ◆ Class rewards

* STEP TWO * - RECAP

Remember to look for the behaviour you want rather than the behaviour you don't want

STEP 1 - Always make your requirements absolutely clear.

STEP 2 - Remember to look for the behaviour you want rather than the behaviour you don't want

STEP 3 - Frequently acknowledge children when they are doing what is required

STEP 4 - Change the frequency of the feedback to suit each situation

* STEP THREE *

Frequently acknowledge children when they are doing what is required

Feedback for Appropriate Behaviour
(appreciation, praise, certificates etc)

may appear to have little effect in the short term but will actually teach new behaviour habits and social skills.

APPROPRIATE FEEDBACK FOR CHILDREN

- ◆ Individualised and sincere
- ◆ Appropriate and descriptive
- ◆ Matter of fact
- ◆ Personal and private

WHY SHOULD WE USE APPROVAL?

- ◆ Disapproval cannot teach new behaviour
- ◆ Disapproval can make behaviour worse
- ◆ New behaviour can only be taught through approval and feedback

SANCTIONS

Sanctions are like petrol - highly inflammable
dangerous - only use consistently, systematically,
predictably and dispassionately.

WHY DO TEACHERS USE SANCTIONS?

It is the way that society is organised.
Using negatives comes naturally (habit).
Negatives appear to work at once.
We expect children to behave well and thus ignore good behaviour.
It is difficult to catch children doing good things – we are not used to it.
Children expect to be reprimanded and teachers are expected to reprimand.
We tend to behave like our own teachers behaved towards us.

WHAT DO SANCTIONS ACHIEVE?

- They may prohibit, but they do not teach alternative appropriate or acceptable behaviours.
- They may be effective in the short run and this will encourage the teacher or parent to persevere with them, producing a vicious circle.
- Sometimes they work, but their effect tends to diminish over time, thus calling for more and more severe sanctions.
- They may lead to escape or avoidance behaviours.
- They provide an aggressive model.
- They reduce the value of the punisher as a giver of positive reinforcement.
- They can be stressful for the teacher and they are certainly time consuming.
- They often lead to unwanted emotional reactions from the children. (crying, sulking or even aggression).

EXTRINSIC REWARDS MAY BE COUNTER-PRODUCTIVE

Stuart Sutherland (1992) "Irrationality: the enemy within"

However Sutherland acknowledges that:

- a) Feedback is a vital element of learning.
- b) Praise may be internalised and may function in a different way to external rewards.

Evidence reviewed in Lepper and Greene (1978)

WHOLE CLASS REWARDS

EXTRINSIC REWARD

itself will not be effective in changing behaviour.

However, it provides a vehicle for giving the potentially powerful

INTRINSIC REWARD

of

POSITIVE FEEDBACK

* STEP 3 * - RECAP

Frequently acknowledge children when they are doing what is required

STEP 1 - Always make your requirements absolutely clear.

STEP 2 - Remember to look for the behaviour you want rather than the behaviour you don't want

STEP 3 - Frequently acknowledge children when they are doing what is required

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* STEP FOUR *

Change the frequency of the feedback to suit each situation

i.e. more feedback for appropriate behaviour at the beginning of a new activity.

NON-DISRUPTIVE / DISRUPTIVE BEHAVIOUR

Avoid recognising - inappropriate behaviour

◆ Redirecting techniques:

- Proximity Praise
- The look
- Use of names
- Physical proximity

* STEP FOUR * - RECAP

Change the frequency of the feedback to suit each situation

RE-FOCUSING TECHNIQUES

- ◆ Stay calm
- ◆ Focus on desired behaviour
- ◆ Repeat as necessary; use the broken record technique

SUPPORTING STUDENTS WHO CONTINUE TO IGNORE YOUR REQUIREMENTS

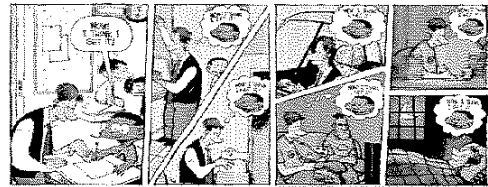
- ◆ Get close
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INTEGRATING BEHAVIOURAL INCLUSION SKILLS

Don't use skills in isolation

Adapt to your personal style

Incorporate with your teaching



BEHAVIOUR POLICY

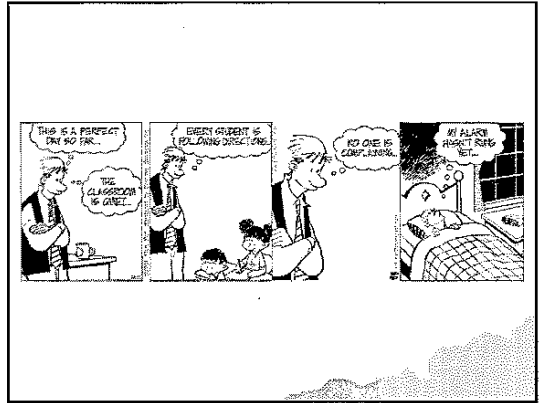
Each school should have a clear school behavioural policy which should:

- Set out a hierarchy of sanctions, and the arrangements for applying them consistently and fairly
- Have a linked system of rewards for good behaviour
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Group B Presentation (including video)

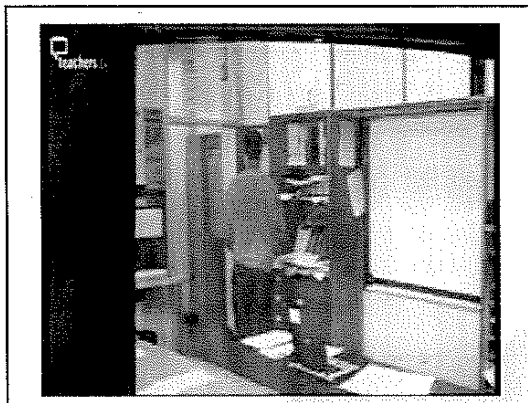
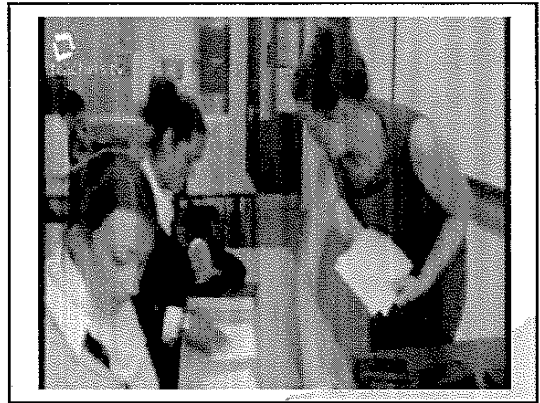
Managing Behaviour in the classroom

A whole school
philosophy



SPOT THE DIFFERENCE

Video clips to follow...



◆ Results show:

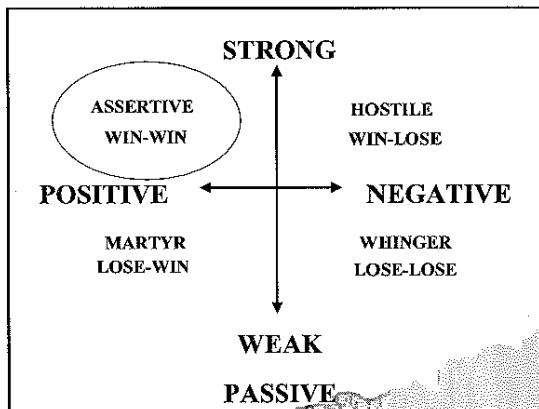
- positive feedback reserved for students' work,
- negative feedback generally directed towards pupils' behaviour.

◆ Very little, if any, positive feedback directed towards pupil behaviour. This reflects previous research findings

Today's programme developed by Jeremy Swinson (as a PhD student) Richard Melling, Educational Psychologist and Mike Cording, formerly the head of a school for children with Emotional and behavioural Difficulties, presently a behavioural consultant.

THE GOAL

Reactive teaching style → proactive / positive teaching style



MANAGING BEHAVIOUR

4 Essential Steps

STEP 1 - Always make your requirements absolutely clear

STEP 2 - Remember to look for the behaviour you want rather than the behaviour you don't want

STEP 3 - Frequently acknowledge children when they are doing what is required

STEP 4 - Change the frequency of the feedback to suit each situation

* STEP ONE *

Always make your requirements absolutely clear

GUIDELINES FOR TEACHING YOUR REQUIREMENTS

- ◆ Keep the requirements simple - limit the number.
- ◆ Requirements must be observable.
- ◆ Requirements must relate to how the pupil is to participate in the activity.
- ◆ Requirements must relate to how the children behave in order to be successful.

REMEMBER M.I.N.C.

- ◆ M (aterials) the child needs.
- ◆ I (in or out of seat)
- ◆ N (oise level) expected
- ◆ C (ommunicate) with the teacher

TEACH REQUIREMENTS FOR EACH SITUATION

- ◆ State your requirements
- ◆ Question students for understanding
- ◆ Roleplay with students
- ◆ Repeat your requirements as required

* STEP ONE * - RECAP

Always make your requirements absolutely clear

For Example...



STEP 1 - Always make your requirements absolutely clear.

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*** STEP TWO ***

Remember to look for the behaviour
you want

rather than the behaviour you don't
want

**USING FEEDBACK FOR
APPROPRIATE BEHAVIOUR TO GET
CHILDREN ON TASK**

- ◆ Give requirements
- ◆ Look for students following requirements
- ◆ Say name, repeat requirements and use an approving comment

KEEPING STUDENTS ON TASK

- ◆ Consistent feedback for appropriate behaviour
- ◆ Scanning
- ◆ Circulating the room
- ◆ Class rewards

*** STEP TWO * - RECAP**

Remember to look for the behaviour
you want rather than the behaviour
you don't want

For Example...



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* STEP THREE *

Frequently acknowledge children when they are doing what is required

Feedback for Appropriate Behaviour (appreciation, praise, certificates etc)

may appear to have little effect in the short term but will actually teach new behaviour habits and social skills.

APPROPRIATE FEEDBACK FOR CHILDREN

- ◆ Individualised and sincere
- ◆ Appropriate and descriptive
- ◆ Matter of fact
- ◆ Personal and private

WHY SHOULD WE USE APPROVAL?

- ◆ Disapproval cannot teach new behaviour
- ◆ Disapproval can make behaviour worse
- ◆ New behaviour can only be taught through approval and feedback

SANCTIONS

Sanctions are like petrol - highly inflammable dangerous - only use consistently, systematically, predictably and dispassionately.

WHY DO TEACHERS USE SANCTIONS?

It is the way that society is organised.
Using negatives comes naturally (habit).
Negatives appear to work at once.
We expect children to behave well and thus ignore good behaviour.
It is difficult to catch children doing good things – we are not used to it.
Children expect to be reprimanded and teachers are expected to reprimand.
We tend to behave like our own teachers behaved towards us.

WHAT DO SANCTIONS ACHIEVE?

- They may prohibit, but they do not teach alternative appropriate or acceptable behaviours.
- They may be effective in the short run and this will encourage the teacher or parent to persevere with them, producing a vicious circle.
- Sometimes they work, but their effect tends to diminish over time, thus calling for more and more severe sanctions.
- They may lead to escape or avoidance behaviours.
- They provide an aggressive model.
- They reduce the value of the punisher as a giver of positive reinforcement.
- They can be stressful for the teacher and they are certainly time consuming.
- They often lead to unwanted emotional reactions from the children. (crying, sulking or even aggression).

EXTRINSIC REWARDS MAY BE COUNTER-PRODUCTIVE

Stuart Sutherland (1992) "Irrationality: the enemy within"

However Sutherland acknowledges that:
a) Feedback is a vital element of learning.
b) Praise may be internalised and may function in a different way to external rewards.

Evidence reviewed in Lepper and Greene (1978)

WHOLE CLASS REWARDS

EXTRINSIC REWARD
itself will not be effective in changing behaviour.

However, it provides a vehicle for giving the potentially powerful

INTRINSIC REWARD

of

POSITIVE FEEDBACK

* STEP 3 * - RECAP

Frequently acknowledge children when they are doing what is required

For Example...



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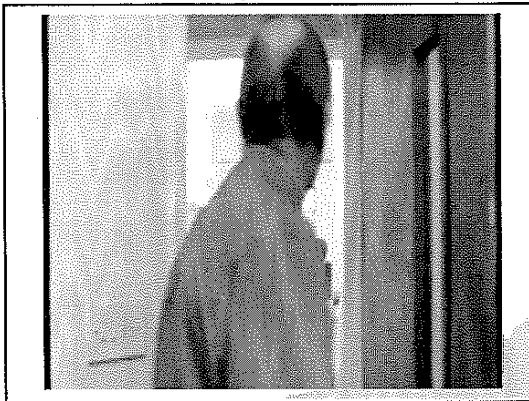
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For Example...



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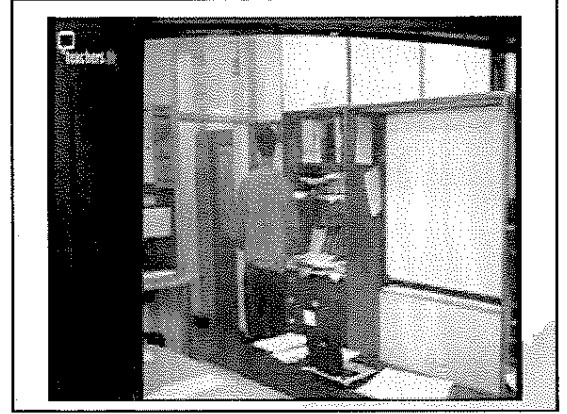
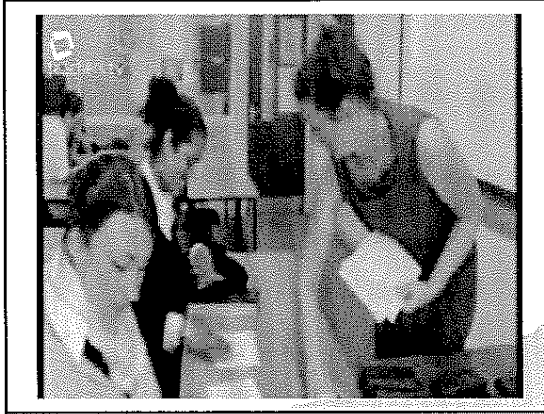
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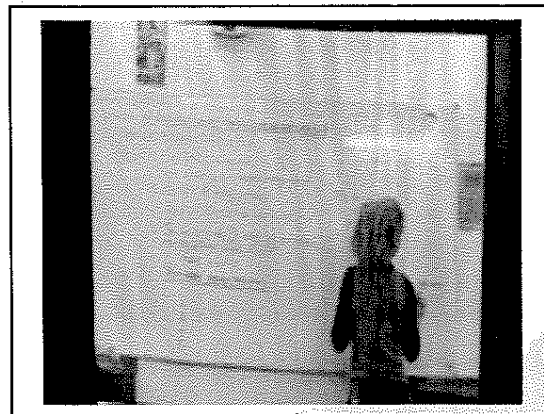




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Appendix C

Example of participation agreement used in Phase 2.

POSITIVE TEACHING PRACTICES PROJECT – PARTICIPATION AGREEMENT

OBJECTIVE:

A happy and successful teacher is one who is able to progress students academically throughout the year. Troublesome student behaviour in the classroom may be a barrier to this goal so strategies for managing classroom behaviour are important. Previous research suggests that the most effective classroom behaviour management strategy is teachers' appropriate and frequent use of positive feedback for desired academic and social behaviour of students.

The objective of this project is to provide the skills and knowledge to enable you to apply positive teaching practices to your classroom.

RATIONALE:

Research has shown that teacher behaviour can influence the behaviour of their students (Becker, Madsen, Arnold & Thomas, 1967) and that the teacher of a well managed classroom uses a preventative rather than reactive system to identify and teach desired behaviour. The teacher maintains this management system with prompt and appropriate feedback to the students (Emmer & Stough, 2001).

Positive teaching practices encourage teachers to deliver frequent and appropriate praise and approval to their students. When teachers provide positive verbal feedback to students, e.g., praise for appropriate behaviour, the likelihood of the desired behaviour occurring in the future is increased (Madsen, Becker, & Thomas, 1968).

While using praise and approval in the classroom is not a new concept, a review of international studies in this area has suggested teachers may not be fully utilising the "powerful behaviour management tool" that is appropriate approval in the classroom (Beaman & Wheldall, 2000).

PARTICIPATION:

Participation will involve:

1. Signing an agreement to commit to project, to attend training and complete related assignments.
2. Lessons being observed by the project supervisor before and after the training session.
2. Attendance at the training session.
3. Engaging in follow up support in the form of one to one discussions with supervisor.

EXPECTED OUTCOMES:

If desired student academic and social behaviour is given appropriate positive feedback, overall classroom behaviour will improve and student on-task behaviour will increase.

POSITIVE TEACHING PRACTICES PROJECT - PARTICIPATION AGREEMENT

Effective Dates: From _____ to _____

I _____, have read and understood the attached information detailing my participation in the Positive Teaching project.

My signing of this agreement indicates my commitment to the project.

I agree to have my lessons observed to gather information for the project (these lessons will be nominated by me) and confirm I will attend the training session .

Following the training session I will use my best endeavours to use the strategies I have learnt from the presentation in the subsequent classes I teach.

I will attempt to increase the rate of my positive verbal approval to my students' academic behaviour and social behaviour following training.

I undertake to utilise the follow up support provided and schedule follow up discussions with the project supervisor .

Signed: _____