Evidence-Based Classroom Behaviour Management Strategies Barry S Parsonson PhD

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Abstract: This paper reviews a range of evidence-based strategies for application by teachers to reduce disruptive and challenging behaviours in their classrooms. These include a number of antecedent strategies intended to help minimise the emergence of problematic behaviours and a range of those which provide positive consequences for appropriate student behaviours. Also included is information on teacher feedback and a review of strategies for enhancing teacher-student relationships. The approaches covered by the paper are consistent with those of the Ministry of Education's Positive Behaviour for Learning (PB4L) initiatives.

Introduction: Behaviour problems in a classroom increase the stress levels for both the teacher and pupils, disrupt the flow of lessons and conflict with both learning objectives and the processes of learning. They also change the classroom dynamic as the focus of attention shifts from the academic tasks at hand to the distractions provided by disruptive behaviours. Typically, one or two pupils are identifiable as 'problems', sometimes they act in ways that compound management difficulties by inciting each other and, possibly, others in the class into disruptive activities. The usual response to problematic behaviour is to identify the child(ren) involved as 'the problem', to focus on them as a source of "trouble" and to devise strategies specifically to deal with their inappropriate behaviour.

However, a classroom is an environment with its own ecology, including teacher, pupils and their interrelationships, the equipment, books, classroom environment and a range of activities which all interact to influence the behaviour of the room's inhabitants. To complicate things further, both teacher and pupils bring into class experiences and issues from the wider ecological systems in which they live and function, e.g., the rest of the school community, home, family/whanau, community and the wider world. Simply targeting interventions at individual children in the classroom may not actually solve a classroom behaviour problem. Indeed, focusing on individuals may lead one to ignore examination of systemic problems in teacher-pupil relations, the management and teaching styles of the teacher, the curriculum and the skills required by students to access it, the order in which activities are scheduled, and a whole host of other aspects of the classroom and wider school ecology. It also has to be remembered that children bring to school all sorts of concerns, distresses, reactions and patterns of behaviour established, permitted and supported outside of the classroom itself. Thus, targeting a child as "the problem" may divert one's attention from a careful examination of the classroom ecology or that of the wider school and the family and community environments within which the school is embedded. Equally, children learn to discriminate the behaviours required in a variety of settings and thus can learn to behave differently if appropriate and desired behaviours are signalled, encouraged and supported in any given setting. This is not to say that issues around individual children should be ignored, but rather that their behaviour has to be viewed in context, as a function of interactions which shape and maintain it and it needs to be assessed against the background of the environment in which it occurs. To place "problem behaviour" in context, 88% of a sample of 42 New Zealand teachers responding to a questionnaire rated classroom mismanagement as "sometimes" or

"very often" a cause of problematic classroom behaviour (Johansen, Little, & Akin-Little, 2011). Of concern was the fact that many of these teachers had had minimal pre-service training in behaviour management and in-service professional development was considered by some to be of little benefit or not commonly offered.

Behaviour Management Strategies: Strategies to manage or change behaviour in schools can involve school-wide, classroom-based or individual child-focused interventions, the focus of this paper is on classroom-based interventions derived from Applied Behaviour Analysis (ABA), which involves the application of the principles of operant conditioning (Skinner, 1953) to socially relevant human behaviours (Baer, Wolf, & Risley, 1968). Over the past 44 years the application of ABA to classroom behaviour management has demonstrated the efficacy of a wide variety of interventions which involve use of both antecedent and contingency management strategies which can be used by classroom teachers to create positive and functional learning environments which minimise disruptive behaviours and reward engagement and achievement. Several of these effective strategies are outlined below.

1. Classroom Strategies: If the study by Johansen, Little and Akin-Little (2011) cited above accurately represents teacher awareness that poor classroom management is an important factor associated with disruptive behaviour, then it would follow that interventions which target teaching skills and classroom behaviour management have the potential to produce significant impacts on disruptive behaviour. According to the Elton Report (1989, cited in the Office for Standards in Education, Children's Services and Skills 2005, section 65, p.15), it was estimated that in the United Kingdom 80% of disruptive behaviour was attributable "to poor classroom

organization, planning and teaching". According to the Elton Report, British teachers reported behaviours such as talking out of turn, and other forms of persistent low-level disruption as the most frequent and stress inducing because of their constantly disruptive effect on both classroom activities and the teaching-learning process.

Important factors identified related to teacher confidence and competence, their ability to engage children in the curriculum and for teachers to have good group management skills so that the class focus was on appropriate behaviour.

Effective teaching and positively functioning classrooms with low levels of disruptive behaviour require planning and consistency. Factors which have been found to contribute to these outcomes identified in a literature review by Kern and Clemens (2007) are:

- Clear, simple rules and expectations which are consistently and fairly applied;
- Predictability of events and activities through establishing routines, information,
 cues and signals about forthcoming transitions and changes, as well as for content,
 duration, and consequences for activities;
- Frequent use of praise, both verbal and non-verbal. Teacher praise has
 demonstrated effects on both those earning it and those nearby. Verbal praise should
 be specific and descriptive. Teachers should try to provide a child with at least four
 praise statements for every reprimand;
- Because Disruptive behaviour is often associated with learning deficits, t ask difficulty needs to be monitored. All students need to have the required entry skills and ability to successfully engage in assigned activities. Participation and learning can only follow successful access to the curriculum and encouragement to sustain activity;

- Opportunities to respond and participate in the classroom activities, to use the
 materials and to respond to requests must be inclusive of all children in the class.
 Strategies to increase the engagement of all students include having everybody write
 answers to some teacher questions rather than just seeking one correct response;
- Seating arrangements: For older students (10 years and above) seating in rows works better than group seating;
- Effective instructions and commands need to be preceded by getting the pupils' attention, and then presented clearly one at a time as "do's", in a firm (not angry) voice, with time to comply and praise for compliance. Precise, specific, direct and paced (one-at-a-time) instructions delivered in a calm and quiet voice, followed by praise for compliance have been found most effective;
- Sequencing of activities, so that easy and brief tasks are interspersed with longer and more demanding ones, enhances engagement and learning as well as reducing disruption. Preceding difficult activities with a few simple ones has been found to enhance transition to a new activity as has scheduling active learning after breaks before moving on to more passive activities so that children have time to adapt to quieter routines;
- Pace of instruction is best if it is brisk. This can be achieved by increasing rate of instruction or decreasing the pauses between student response and the presentation of the next task. Increased pace needs to be managed so that students do not lose opportunities to respond and access reinforcement;
- Choice and access to preferred activities increases engagement and reduces problem behaviour. Using children's own special interests as the basis for activities can significantly increase engagement.

While these elements may each present as common knowledge to teachers, the consistent and skilled application of them as a systematically used package of effective teaching strategies is what increases the probability of enhanced learning and reduced problematic behaviour. To assist teachers with particular management problems it is sometime necessary to implement specific interventions.

2. Effective Specific Classroom-wide interventions include:

Teacher performance feedback: Providing teachers with clear guidelines and strategies for effective teaching, accompanied by written performance feedback plus graphed data and consultation meetings was used by DiGennaro, Martens, and Kleinmann (2007). A skilled observer checked on the integrity of the teacher's compliance with the agreed behaviour management programme. Written feedback on both student behaviour and teacher accuracy in implementing the programme was more effective than feedback on student behaviour alone, especially when high compliance enabled the teacher to avoid attending the after-class feedback session. Performance feedback which is based on compliance data has also been shown by others (e.g., Noell, Witt, LaFleur et al., 2000) to reliably improve teacher skills and compliance with agreed programme goals.

Performance feedback can be used to assist teachers to change how they relate with children and which behaviours they attend to. Attending to appropriate behaviours with praise, smiles, positive feedback, and classroom reward systems enhances such behaviour, so represents a simple and easily introduced intervention. Providing teachers with feedback on how effectively they are attending to appropriate behaviour can be an effective way to enhance teachers' classroom management skills

(Parsonson, Baer, & Baer, 1974). However, more intensive interventions involving classroom-based training occasionally are necessary. In addition, monitoring the quality and quantity of a teacher's verbal interactions with challenging students can provide an important insight into those teacher behaviours that trigger problematic behaviours (Sutherland, Lewis-Palmer, Stichter, & Morgan, 2008; Swinson & Knight, 2007). Providing feedback on such exchanges and working with the teacher to develop more appropriate modes of interaction, including use of praise and positive comments, is an important way of reducing challenges and increasing on-task behaviour.

Classroom-based Training: If additional teacher training is necessary, the data suggest that instructions, rehearsal, prompts, modelling of appropriate responses, performance feedback and praise for accurate responding provide an effective combination for enhancing teacher behaviour management skills and teaching effectiveness (e.g., Cossairt, Hall & Hopkins, 1973; Sarokoff & Sturmey, 2004). Preliminary observations set the scene for working with the teacher to identify targets for training. Planning exactly what will be done using clear and simple guidelines, directly observing and engaging with the teacher through prompts (e.g., "try this" "remember to do X"), modelling what to do by way of demonstration, and providing data-based feedback and praise have been shown by the above authors to produce rapid and large improvements in teacher and, consequently, student behaviour.

Most studies of classroom feedback to teachers have used methods that are less than immediate, however, a recent series of experiments, using bug-in-the-ear and webcam technology, conducted by Scheeler and colleagues and reviewed in their recent paper

(Scheeler, McKinnon, & Stout, 2011) shows promise in providing direct feedback. In this study, the authors were able to provide feedback from remote locations to trainee special education teachers in the classroom with beneficial effects on their teaching performance and some evidence of transfer to non-feedback conditions. This approach holds promise for the application of the technology to in-service professional development for teachers in implementing behaviour strategies.

Bringing experienced teachers into the classroom to assist in the development of classroom management skills through goal-setting, feedback and praise also has been shown to be effective in enhancing teaching skills and in improving student academic performance. One such study (Gillat & Sulzer-Azaroff, 1994), which involved principals trained to perform as role models, showed significant changes in teacher goal-setting and use of praise in the form of attention (both verbal and non-verbal) and student enhanced performance as a result of such visits. The principals' use of positive classroom behaviour management strategies also improved as a result of the training and role-modelling responsibilities.

Class-wide incentives: Because low-level disruption can be endemic and stress inducing as well as a potential launching pad for more problematic classroom behaviours, interventions focusing on the whole class can be more effective than targeting individuals. There are numerous programmes in the research literature, including token economies and prize draws to increase appropriate behaviours.

Competitions such as the "Good Behaviour Game", noise reduction programmes using feedback systems, such as the Yakker-Tracker® and behaviour and transition management using rules, signalling and positive consequences all represent options.

Token economies, which use points or tokens that can be traded for access to a variety of rewards, including activities or inexpensive items, have been used effectively to manage behaviour in classrooms for many years (Sulzer-Azaroff & Mayer, 1991). Because token systems take time to set up and run, one simple variation is to use the tokens as 'tickets' in a class 'lotto'. Academic or social behaviour that complies with posted criteria is rewarded with a 'ticket' on which the teacher writes the child's name. The 'ticket' is handed to the child and specific descriptive praise (child's name, behaviour that earned it, and praise) is given simultaneously. The child places this in a bag or box. At the end of the session or school day there is a draw for a mystery prize. Children soon learn (or can have explained to them) that the more 'tickets' they earn, the greater the chance of winning (this example can be used as an exercise in maths). It is important to vary the prizes. One option is to have a "lucky dip" with a range of inexpensive mystery prizes such as pencils, fancy rubbers, small boxes of raisins or decorative stickers.

The "Good Behaviour Game" (Barrish, Saunders, & Wolf, 1969; Harris, & Sherman, 1973; Kleinman & Saigh, 2011; Medland, & Stachnik, 1972;) has been used effectively to manage classroom behaviour by reducing disruptive behaviour. The "game" involves establishing a small number of explicit rules which set out broad positive behaviour expectations (e.g., respect others, solve problems responsibly, manage yourself) and define these in terms of the daily settings and routines of the classroom as in Figure 1 below adapted from Fairbanks, Sugai, Guardino, and Lathrop (2007).

Respect Others	Solve Problems Responsibly	Manage Yourself
1. Say nice things or no	1.Be fair and share	1. Staying in seat
things		
2. Look at the teacher during	2.Consider others' feelings	2. Talking only
instructions		when it is OK
3. Be a good listener	3. Think of ways everybody	3. Following
	can feel good in the end	directions first time
4. Have safe hands and feet	4. Stay friends	4. Ask teacher's
		permission first

Figure 1. An example of broad classroom rules and specific expectations.

These rules are listed and posted where pupils can read them. The class is divided into at least two teams (class groups can be used as teams) and team points are awarded for rule compliance. The team is praised each time its points are posted on the blackboard throughout the session or school day. A criterion is set for the number of points required for a team to obtain a reward and both teams can "win" if they exceed the criterion. Initially, the criterion for a reward may be set at a level the class can easily achieve and then gradually be increased as the game takes effect. Rewards can involve access to in-class games or activities, early release at a break or sports activities in the playground or for points towards some special event, such as a winning-team pizza at the end of the week. The research shows that the game resulted in consistently low levels of classroom disruption and that pupils applied peer pressure to the more disruptive members of their teams to reduce their disruptive behaviour in order for the team to have a chance to win. A variation is to have the game operating on a session-to-session or activity-to-activity basis and to reward the team with the most points with access to a brief fun activity. At the end of the day there is a "prize" for the winning team which has accumulated the most points across the day. The game can gradually be replaced with teacher positive attention and praise for rule compliance so that the more natural consequences of classroom support of good behaviour are established.

Noise management: Reduction of noise levels in the classroom can help to make the learning environment more effective within a classroom and for classes in adjacent rooms. While complete silence is no longer considered appropriate or desirable, excessive noise is identified as a teacher stressor and probably impacts on learning. Wilson and Hopkins (1973) used a sound level device to control noise intensity in a classroom to which children brought their favourite music tapes. Once classroom noise levels exceeded a preset level, the device turned off the music. This was effective in significantly reducing classroom noise. The device known as the "Yakker-Tracker®" has also been used in local classrooms to manage noise levels. The teacher can set the decibel level and the device signals the noise level via green (OK), yellow (a little over) and red (far too high) to the class and teacher on noise compliance. Rewards for compliance can be based on keeping the green light on for a required time or by limiting the number of yellow and red light signals to less than a set number.

Managing transitions: Because modern open-plan classrooms encourage group activities that involve discussion, sharing of equipment and moving around, they tend to be noisier and more active than traditional classrooms. In addition, teaching in groups, delivering instruction on the "mat" and a diversity of ability and skill among pupils requiring provision of individual instruction, may all impose limitations on a teacher's ability to directly control behaviour class-wide. Managing behaviour and transitions can be assisted by establishing a few clear rules for expected behaviour during each of the various groups' activities in the daily class programme and for transitions between them. Fudge, Skinner, Williams, et al. (2008) found that use of colour coded rules and a matching signalling system to show which rules are in effect

at any given time provided pupils with an easy guide to which standards of behaviour applied to their assigned activity. This enabled the students to comply more easily and to remain on-task during transitions. The system also had the benefit of being preemptive, allowing the teacher to prompt students to check the relevant expectations and to praise compliance instead of remonstrating with those who breached them.

Enhancing engagement: Increasing student engagement in academic activities by changing the way that teachers elicit answers to questions are represents an option for enhancing wider participation in some components of the curriculum. Gardner, Heward, and Grossi, (1994) compared the usual hand-raising and response approach to answering teacher questions directed at the class with a response card option, in which all students wrote a one to two word response to teacher questions in a science class. The use of response cards resulted in a 14-fold increase in active student responding compared with hand-raising which tended to target only a few students. Increased student engagement in academic activities is an important component of increased on-task and appropriate behaviour in classrooms and it provides greater opportunities for access to higher rates of teacher praise and approval which add to positive behaviour management and a positive classroom atmosphere.

Peer support: Studies of peer control of reinforcement (Solomon & Wahler, 1973), use of peers as "aides" (Loos, Williams, & Bailey, 1977) and pupil self-evaluation strategies for on-task behaviour (e.g., Glynn, Thomas, & Shee, 1973) are all examples of engaging pupils in their own behaviour management. This can effectively support teacher applied consequences as part of a classroom behaviour programme. In addition, it is important to develop and encourage self-management skills in pupils so

Seymour and Stokes (1976) was to train adolescent girls to evaluate the quality of their work and to then invite the teacher to give them feedback on it. Self –recording and teacher feedback enhanced the quality of work and resulted in increased teacher praise. Stokes, Fowler and Baer (1978) were able extend this self-management approach by training 4-6-year-olds to evaluate their work and to prompt appropriately for teacher comment about work quality. This had the result of providing them with increased positive teacher attention and praise. The children were trained to moderate their prompts to 2-3 per session to avoid being regarded as "pests" by the teacher. Given that teacher attention and praise function as reinforcers of the targeted behaviour, teaching the children to effectively prompt positive teacher attention gave them a means of enhancing their access to this source of natural classroom reinforcement. It also created opportunities to change teacher attitudes toward children considered as "problems" by increasing the teacher's focus on their appropriate behaviour.

Relationship building: Many years ago Barker and Gump (1964) showed that as schools get larger the potential for student anonymity, non-recognition, alienation or non-engagement increase. As a consequence, interpersonal relationships between students and their teachers take on a greater significance. Also, because teacher attention functions as a reinforcer, building positive relationships with pupils is an important antecedent strategy that can serve to reduce disruptive behaviour and enhance on-task behaviour and student achievement (Sutherland, Lewis-Palmer, Stichter, & Morgan, 2008). For example, Allday and Pakurar (2007) found that, for three disruptive pupils aged 12-14 years, teacher greetings at the classroom door

which included use of the student's name and a positive comment, were sufficient to increase their on-task behaviour from an average of 45% to an average of 75% in a relatively short time. In a similarly focused study, Patterson (2009) demonstrated that teacher greeting and personally-focused small talk ahead of class produced dramatic reductions in a high school student's out-of-seat attention seeking in the classroom. These findings from two simple and practical interventions in a classroom support the findings of Gregory and Ripski (2008) on the relationship between adolescents' trust in their teachers and student behaviour in classrooms. The importance of teacherpupil relationships as mediators and determinants in the behavioural trajectories of primary school children were also demonstrated by O'Connor, Dearing and Collins (2011). They found that development and display of externalizing behaviour problems (e.g., disruption, non-compliance, aggression) were correlated with low quality of teacher-child relationship. In addressing teacher-pupil relationships, Alderman and Green (2011) have identified and described four basic "power" strategies that teachers can use to enhance student relationships and classroom control. These are: "Coercive Power", which involves the teacher's judicious use of authority to achieve behaviour change. It includes modes of correction, classroom points systems and supportive interactions intended to change behaviour; "Manipulative Social Power", in which the teacher uses subtle strategies such as giving behaviour choices, options for task completion, self-monitoring, introducing interesting activities to motivate, and increasing probability of success in academic activities; "Expertness Social Power" involves providing academic support that helps students overcome problems that they cannot solve on their own, which is supported by the teacher's active listening and then identifying potential resources or sources that will assist the student; and, "Likability Social Power", this is based on the teacher's use of their own personal

characteristics, such as enthusiasm, interest, humour and warmth to encourage positive behaviour in pupils. Alderman and Green set out examples of how to apply these strategies to effect positive changes in student behaviour and to enhance teacher-pupil relationships. They note that many teachers fail to use all of these strategies in effective ways and that some rely too heavily on coercive or manipulative power to try to achieve behaviour change.

What these latter studies demonstrate is that relationship building with all of the pupils in the classroom represents a potentially effective antecedent strategy to reduce challenging and disruptive behaviour. Teachers who support and encourage all of the students in their classroom effectively, and who identify and target appropriate and desired behaviours with positive reinforcement, increase the likelihood of their being effective classroom behaviour managers.

Summary and Conclusions: The aim of this paper has been to offer teachers and teacher advisors a range of evidence-based interventions intended to anticipate and limit problematic behaviours (antecedent strategies) and to encourage and support appropriate behaviour by students (contingency management). All of the strategies described in this paper are consistent with, and complementary to, the New Zealand Ministry of Education's Positive Behaviour for Learning (PB4L) school-wide positive behaviour strategy (cf. Anderson & Kinkaid, 2005; George, White & Schlaffer, 2007; Hieneman, Dunlap & Kincaid, 2005; Muscott, Mann & Le Brun, 2008; Sugai & Horner, 2002).

Antecedent strategies involve pre-planned, intentional use of classroom behaviour management procedures that reduce the likelihood of problematic behaviours occurring. Their application is intended to anticipate, and thus limit, disruption, noncompliance and task avoidance by students. Too often, teachers can create or maintain problematic classroom behaviour by relying too heavily on reactive management strategies. In some schools, the use of reactive strategies, such as detentions, removal from class and office referrals, continues even when teachers are aware of their ineffectiveness. Use of positive reinforcement is essential to encourage and maintain appropriate behaviour and academic learning. Some teachers resist use of reinforcement in the belief that extrinsic rewards reduce students' "intrinsic motivation" to engage in an activity. It is important to appreciate that children learn the intrinsic value of activities through effective teaching of skills allowing them to access and enjoy the activity, supported by initial exposure to the extrinsic rewards provided by teachers for developing and displaying the relevant skills. For example, once a child can read, interesting text and pictures provide the "intrinsic" reinforcement that maintains reading behaviour. Children for whom reading is a challenge are less likely to access those intrinsic reinforcers and may well find reading a punishing activity.

Although it was the last topic to be covered in this paper, positive relationship building with all pupils may well be the first and most important strategy for teachers to attend to, closely followed by effective instructional methods, simple and clear classroom rules, clear boundaries, and a strong focus on attending positively to desired and appropriate student behaviours. By using a combination of antecedent-and consequence-based behavioural interventions, teachers can help to create a

positive classroom environment, enhanced student engagement and more effective learning opportunities. At the same time teachers can reduce their stress and increase the enjoyment of their teaching and their students' enjoyment of their daily learning experiences.

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