

Self-reported and actual use of proactive and reactive classroom management strategies and their relationship with teacher stress and student behaviour

Penny Clunies-Ross, Emma Little* and Mandy Kienhuis

Division of Psychology, RMIT University, Bundoora, Australia

(Received 20 November 2007; final version received 16 May 2008)

This study investigated the relationship between primary school teachers' self-reported and actual use of classroom management strategies, and examined how the use of proactive and reactive strategies is related to teacher stress and student behaviour. The total sample consisted of 97 teachers from primary schools within Melbourne. Teachers completed four questionnaires which gathered information on demographics, disruptive student behaviour, teacher management strategies, and teacher self-reported stress. In addition, 20 of the 97 teachers were observed in their classrooms while teaching, with teacher behaviour management strategies and student on-task behaviour recorded. Observation and questionnaire data were then matched. The findings indicated that teacher self-reports accurately reflect actual practice, that relatively minor forms of student misbehaviours are a common concern for teachers, and that teachers are spending a considerable amount of time on behaviour management issues. The findings also revealed that the use of predominantly reactive management strategies has a significant relationship with elevated teacher stress and decreased student on-task behaviour. These findings have important implications for teaching practices and student learning.

Keywords: behaviour management; problem behaviour; teaching efficacy; primary

Introduction

Classroom behaviour management and teacher stress have been well researched in the fields of psychology and education over the past 25 years. However, disruptive behaviours, teacher stress, and teacher burnout remain significant concerns in Australian schools. It is estimated that approximately 6% of students have behaviour problems that are considered serious enough to warrant intervention (Little, Hudson, & Wilks, 2000). Research has found that student misbehaviour affects teacher stress, well-being, and confidence, and also impacts negatively on student learning time and academic achievements (Lewis, Romi, Qui, & Katz, 2003; Little & Hudson, 1998; Miller, Ferguson, & Byrne, 2000; Poulou & Norwich, 2000). It appears that difficulty establishing and maintaining effective classroom behaviour management is one of the main reasons teachers leave the profession and a significant factor in student disengagement (Beaman & Wheldall, 2000).

*Corresponding author. Email: emma.little@rmit.edu.au

Disruptive behaviour within schools

In addition to the 6% of children in typical classrooms who have behaviour problems in need of intervention, there are many others whose behaviour significantly interferes with either their own or others' learning (Farrell, 2005; Little, 2003). Beaman (2006) investigated troublesome classroom behaviour and the interactions between students and teachers in secondary schools. Using questionnaire data, she examined the perceptions of 145 secondary teachers from New South Wales with regard to behaviours they found to be troublesome in their classrooms. Talking out of turn (TOOT) was clearly identified by teachers as the classroom behaviour of most concern and most frequently occurring, and the main misbehaviour of the most troublesome individual students (Beaman, 2006). This behaviour involves calling out during times when the teacher or other students are speaking. These findings parallel research conducted in secondary schools. For instance, Infantino and Little (2005) examined the perceptions of 350 secondary school students regarding troublesome behaviours in the classroom. Results indicated that TOOT was the only behaviour perceived by both teachers and students as being the most troublesome and the most frequent (Infantino & Little, 2005).

In the primary school setting, the behaviours that cause the most concern to teachers are frequently occurring but relatively minor (Little, 2005). Past research has found that the most common behavioural problems reported by primary school teachers are TOOT and hindering other children (HOC; Wheldall & Merrett, 1988). HOC involves a range of distracting behaviours that result in other children being disrupted and spending less time on their work (Wheldall & Merrett, 1988). Other behaviours identified as troublesome include disobedience, idleness/slowness, making unnecessary noise, and aggression (Little, Hudson, & Wilks, 2002; Stephenson, Linfoot, & Martin, 2000; Wheldall, 1991).

Sources of stress in the teaching profession

Disruptive student behaviour may lead to teacher stress. According to Lazarus (1993), stress is defined as a state of anxiety produced when events and responsibilities exceed one's coping abilities. Often, an individual experiencing stress has appraised a situation as threatening and holds a belief that they do not have adequate resources or strategies to deal effectively with its demands (Lazarus, 1993). Teacher stress is a concern in many Westernised nations, with research continually indicating that stress within the teaching profession affects the school as an organisation, teacher performance, and the physical and emotional well-being of the teacher and her or his family (Fontana & Abouserie, 1993; Harris, Halpin, & Halpin, 1985; Kyriacou & Pratt, 1985; Kyriacou & Sutcliffe, 1977; Long & Gessaroli, 1989).

Several factors have been identified as sources of stress for teachers. These include workload, lack of resources, poor professional relationships with colleagues, role conflict, inadequate salary, student misbehaviour, difficult interactions with parents, and the expectations of other staff (Center & Callaway, 1999; Long & Gessaroli, 1989; Pithers & Soden, 1998). Griffith, Steptoe, and Cropley (1999) investigated job stress in 780 primary and secondary school teachers in Britain and found that the two major sources of stress were work pressure and student misbehaviour. Other researchers have found similar results (e.g., Cooper & Kelly, 1993; Kyriacou, 1987; McGrath, Houghton, & Reid, 1989; Whitehead & Ryba, 1995). After surveying 100 British primary and secondary school teachers, Hastings and Bham (2003) reported that disrespectful student behaviour predicted emotional exhaustion, while more severe student misbehaviour predicted burnout in teachers. These findings suggest that the cumulative effects of student misbehaviour lead to stress and burnout for teachers. Despite this awareness, there is still a lack of effective interventions occurring in the classroom.

The impact of disruptive behaviour

It can be concluded from the above synopsis that a significant proportion of children exhibit behaviour problems during their early schooling. Behaviour problems in childhood are a significant risk factor for the development of serious clinical disorders in adolescence, such as conduct disorder (Fergusson, Horwood, & Lynskey, 1994). Austin and Agar (2005) note that noncompliance inevitably leads to fewer educational opportunities for students. Furthermore, having a child with behaviour problems in the classroom can result in decreased learning time for the whole class (Little, 2003).

It has already been noted that student misbehaviour can cause high levels of professional stress and personal distress in teachers (Miller, 1995). Both recent graduate teachers and more experienced teachers find that managing classroom behaviour problems is a major cause of stress, as problem behaviours divert the teacher's attention from instructing the class and cause excess time to be spent engaged in disciplinary action (Giallo & Little, 2003; Little, 2003). It may be surmised then that student misbehaviour impacts negatively on student achievement, teacher well-being, and the general classroom environment (Little & Hudson, 1998). Given these detrimental effects, it is imperative to identify the ways in which classroom behaviour can be managed effectively.

Proactive versus reactive strategies

From a behavioural perspective, the management procedures needed to reduce student misbehaviour fall into two broad categories: proactive strategies and reactive strategies (Wilks, 1996). In general, proactive strategies are those behaviours that a teacher can use in order to lessen the likelihood of a child demonstrating inappropriate behaviour, and involve altering a situation before problems escalate (e.g., establishing rules, and praising appropriate behaviour; Little et al., 2002; Safran & Oswald, 2003). Proactive discipline plans can be conceptualised as being preventative and taking a positive approach to classroom management. Teachers are likely to use positive responses when students demonstrate appropriate behaviours (Little et al., 2002). In contrast, reactive strategies are teacher behaviours that occur following a child's inappropriate behaviour (e.g., providing an appropriate consequence; Little et al., 2002; Safran & Oswald, 2003). Reactive discipline strategies are essentially remedial in nature (Little & Hudson, 1998). Teachers using reactive strategies are more likely to respond negatively to students' inappropriate behaviours, rather than responding positively to students' appropriate behaviours.

Few investigations have examined the longer-term effects of using reactive strategies to tackle behaviour problems in children. An exception to this is a study conducted by Gardner, Sonuga-Barke, and Sayal (1999), albeit with parents rather than teachers. They examined the influence of parenting style on the development of behaviour problems by observing 52 mothers and their three-year-old children in the home setting. Children who had lower levels of behaviour problems had mothers who used proactive rather than reactive strategies (Gardner et al., 1999). Furthermore, follow-up of a subsample found that the use of reactive strategies for three-year-old children predicted a continuation of behaviour problems by age five in 25 of the original 52 children (Gardner et al., 1999). This indicates that reactive strategies are less effective in managing child behaviour.

A considerable body of research points to the value of using proactive approaches, such as praise, to enhance the classroom environment and increase student learning and on-task behaviour (Arthur, Gordon, & Butterfield, 2003; Porter, 1996). It has been argued that consistent use of these techniques will eliminate most problem behaviours, and maximise student attention to curriculum content and involvement in productive activities (Wilks,

1996). As Good and Brophy (1994, 2000) contend, using more praise results in comments about student misbehaviour being brief, avoids the use of lengthy reprimands, and reduces the incidence of teacher stress and burnout. However, not many investigations have used observations to examine the actual behaviours that teachers employ when managing student behaviour.

There are some exceptions, where investigators have undertaken classroom observations to demonstrate the value of using positive attention and praise in responding to student behaviour. Wheldall, Houghton, and Merrett (1989) observed that teachers who used more praise and fewer instances of disapproval of social behaviour experienced higher levels of on-task behaviour in their classrooms. Furthermore, Houghton, Wheldall, Jukes, and Sharpe (1990) studied the effects of private reprimands and praise in British secondary schools, and found that student on-task behaviour increased through the use of proactive strategies rather than the use of disapproval.

More recently, following observation of 79 secondary teachers, Beaman (2006) found that when teachers dealt with troublesome behaviour in a negative way, students not only perceived themselves to be less engaged, but their on-task behaviour was actually reduced. Although teachers in this study were generally more approving than disapproving, they still provided a great deal of negative attention to inappropriate social behaviour, with most praise or approval responses being directed towards academic work (Beaman, 2006). This supports previous research findings that teachers predominantly use positive responses for academic behaviours and negative responses for social behaviours (Wilks, 1996).

Despite evidence for the effectiveness of proactive strategies, research suggests that many teachers use other strategies that are not recognised as being effective in managing misbehaviour (Infantino & Little, 2005). For instance, Merrett and Wheldall (1986) used a behavioural observation schedule to study how teachers responded to student behaviour. They found that teachers often responded negatively to student behaviour, using high levels of reprimands (Merrett & Wheldall, 1986). Similarly, Poulou and Norwich (2000) found that although Greek teachers reported favouring positive reinforcement, when their behaviour was observed they were actually more likely to use punishments or threats. Low incidences of praise and high rates of disapproval from teachers have also been observed in Australian primary school classrooms (Martin, Linfoot, & Stephenson, 1999). Martin and colleagues (1999) propose that the reason why positively focused strategies are not often used is that teachers do not have enough information and understanding about how they should be used. Consequently, there appears to be a divide between what researchers know about effective behaviour management and what is actually occurring in classrooms.

Summary and rationale

The literature strongly suggests that classroom behaviour management is deemed to be most effective when proactive approaches are employed (Herrera & Little, 2005; Wheldall et al., 1989; Wilks, 1996). However, much of the research surrounding the effectiveness of different classroom behaviour management strategies relies on self-report data, and the limitations surrounding self-report data are clearly evident. It is yet to be determined how closely self-report data reflect actual practice in the classroom. Merrett and Wheldall (1986) argue that educational researchers adopting a behavioural approach should be interested chiefly in observing and recording teacher and student behaviours in the 'natural environment'. Systematic observations of teachers' use of proactive and reactive strategies, compared to the results of self-report measures, are needed to determine how different management strategies impact on teachers, students, and the classroom environment. Such

studies have not as yet been undertaken. It would be advantageous for research to proceed in this area, as this will allow investigators to influence teacher training more effectively, with the aim of reducing teacher stress and increasing student on-task behaviour.

Research aims and hypotheses

The aims of this study were to investigate the relationship between primary school teachers' self-reported and actual use of management strategies, and to identify how the use of proactive and reactive strategies is related to teacher stress and student behaviour. It was expected that teachers reporting lower levels of stress would report using a predominantly proactive or positive approach to classroom management. It was hypothesised that teachers using predominantly reactive strategies to student behaviour would report elevated stress. It was also expected that students would show higher amounts of on-task behaviour if their teacher was using predominantly proactive approaches and positive responses, and lower amounts of on-task behaviour if their teacher was using predominantly reactive approaches and negative responses.

Method

Participants

Catholic, government, and independent schools within the metropolitan Melbourne area were invited to participate in the study. A total of 21 schools participated in the study, during Term 4 of 2006 and Terms 1 and 2 of 2007; four were Catholic schools, 12 were government schools, and five were independent. From a total of 216 primary school teachers who accepted questionnaires, 97 participated in the study (44.9% response rate). All participants were registered with the Victorian Institute of Teaching.

Of the 97 participants, 75.3% were female ($n = 73$) and 24.7% were male ($n = 24$). This reflects the proportion of male and female teachers in Australian primary schools, as a recent Australian Bureau of Statistics (2006) report indicated that 20.2% of primary school teachers in Australia are male. Teachers in the sample had been teaching for 1–41 years ($M = 13.54$, $SD = 10.99$), and ranged in age from 22 to 61 years ($M = 38.54$, $SD = 12.05$). The average age of teachers in the sample was slightly lower than the national average age of 43 in primary school teachers (Australian Bureau of Statistics, 2006). Classroom teachers accounted for 79.4% of the sample ($n = 77$), while 11.3% ($n = 11$) were specialist teachers, 6.2% ($n = 6$) were leading teachers, and 3.1% ($n = 3$) were principals or assistant principals.

A subsample of 20 teachers, recruited from the larger sample of 97, agreed to being observed in their classrooms while teaching. Of these, five taught in Catholic schools and 15 taught in government schools; 80% were female ($n = 16$) and 20% were male ($n = 4$). The observed teachers had been teaching for 2–33 years ($M = 14.15$, $SD = 9.67$), and ranged in age from 23 to 58 years ($M = 40.05$, $SD = 11.06$). Of the 20 teachers observed, 90% were classroom teachers ($n = 18$) and 10% were specialist teachers ($n = 2$).

Materials

Teachers completed four questionnaires that gathered information on demographics, disruptive student behaviour, teacher management strategies, and teacher self-reported stress. The first questionnaire detailed the teacher's age, sex, teaching qualifications, and school and class demographics.

The second questionnaire required teachers to report on their perception of disruptive behaviour within their classroom and how often they had to deal with disruptive behaviours. This was adapted from Martin and colleagues' (1999) Child Behaviour Survey and Wheldall and Merrett's (1988) Classroom Behaviour Problems Checklist. Minor modifications were made to these scales to obtain gender-specific information for disruptive behaviour. The two scales have been found to demonstrate acceptable internal consistency, reliability, and validity (Martin et al., 1999; Wheldall & Merrett, 1988). In particular, Martin and colleagues' (1999) Child Behaviour Survey has been found to demonstrate acceptable internal consistency, with Cronbach's alpha ranging from $r = .79$ to $r = .92$.

The third questionnaire was the Competency and Behaviour Management Survey developed by Herrera and Little (2005). This questionnaire asks teachers about the types of management strategies they used to deal with problem behaviours; 12 items cover management strategies, and two enquire about teacher knowledge and confidence in using various management strategies. Items pertaining to the management of disruptive behaviour are rated on a scale of 1 ('extremely unlikely') to 5 ('extremely likely') (Herrera & Little, 2005). Teachers were also asked to make qualitative comments regarding their knowledge and confidence in managing disruptive behaviour. Additions were made to the scale; questions were included on teachers' preferences for different methods of assistance in managing student behaviour (e.g., consultation with an educational psychologist). The five methods of assistance included were reported by Little (1999) to be those most frequently used by teachers.

The final questionnaire used was the Teacher Stress Inventory developed by Boyle, Borg, Falzon, and Baglioni (1995). This scale was adapted to Australian English. The inventory presents 20 sources of stress in teaching, and asks teachers to rate on a scale of 0 to 4 the amount of stress they generally experience from each factor. A total stress score is calculated by summing the individual items, with a maximum score of 80. Five factors have been identified: student misbehaviour, workload, professional recognition, time/resource difficulties, and poor colleague relations. The Cronbach alpha internal consistency coefficient for the scale is $r = .85$ (Griffith et al., 1999).

The Observing Pupils and Teachers in Classrooms Schedule (OPTIC; Merrett & Wheldall, 1986) was used to record the behaviour of teachers and students during the observational component of the study. The original authors of this measure provide detailed information about the procedure involved in using this tool (see Merrett & Wheldall, 1986). The first author observed teachers for a period of 30 minutes, as indicated by the original authors, to examine systematically the frequency and type of behaviour management strategies that they were employing while teaching. The first author also recorded student on-task behaviour using the OPTIC. While no inter-observer reliability checks were conducted due to resource limitations, previous research has found acceptable inter-rater agreement ranging from .85 to .94. In addition, the first author had participated in a postgraduate class in which the OPTIC was used as part of an assessment task, and the procedure for collecting the observational data was directly taught.

Procedure

Subsequent to ethical clearance from the RMIT University Human Ethics Committee, the Department of Education and Training, and the Catholic Education Office, school principals were contacted and asked if their school was willing to participate in the study. Schools within each major geographical region of metropolitan Melbourne were contacted via telephone until approximately five schools in each region had agreed to participate in

the research. Schools were initially selected via convenience sampling. That is, if staff at a particular school were known to either of the researchers, these schools were likely to be contacted first. If, for some reason, these schools did not agree to participate in the research, additional schools were randomly selected from telephone listings and/or street directory references until the required number of schools in each region had been recruited.

After receiving approval from a principal to conduct research in a school, questionnaires were distributed to teachers at staff meetings. For teachers participating in the questionnaire stage of data collection only, questionnaires and a reply paid envelope were provided. No identifying information was collected from these teachers. During the distribution of questionnaires at staff meetings, teachers were also informed about the observation stage of the research. If a teacher consented to participating in this stage of the research, they were provided with an individual four-digit code. Each teacher's code was known only to the researcher and the individual teacher. The researcher wrote the four-digit code on the teacher's questionnaires and the participant was provided with a reply paid envelope to return their questionnaires. The corresponding four-digit code was also written on a copy of the OPTIC. After the 30-minute observation had been conducted in the teacher's classroom, observation and questionnaire data were matched using the four-digit code.

Data analysis

Data were collated and analysed on a group basis, using SPSS. The distributions of scores on the different variables were examined, using tests of normality and homogeneity of variance, and judged to be satisfactory for parametric analysis. Bivariate correlations and multivariate regression approaches were conducted to assess the relationships between variables.

Results

The results are presented as follows. First, descriptives pertaining to student behaviour are provided. This is followed by an examination of teachers' reported and actual use of management strategies, and level of confidence and knowledge in managing student behaviour. Third, the relationship between self-reported and actual use of management strategies is presented. Next, the factors affecting teacher stress are explored. Finally, the relationships between student behaviour and teacher management strategies are presented.

Student behaviour

Table 1 provides details of the behaviours that were reported as most troublesome and most frequent for male and female students.

In Table 1, it can be seen that TOOT and HOC were reported as the most troublesome and next most troublesome behaviours in male and female students. Furthermore, TOOT and idleness/slowness were reported as the most frequently occurring and next most frequently occurring problematic behaviours in all students.

Data collected from the observations provided information on levels of on-task behaviour for male and female students. All students spent, on average, 71.96% of their time on-task. On average, mean on-task behaviour for male students was 70.26%, while mean on-task behaviour for female students was 73.87%.

The self-report data demonstrated that nearly half of the teachers surveyed (47.4%) reported dealing with student behaviour problems five times or more in a typical day, while

Table 1. The most troublesome and frequently occurring behaviours of male and female students.

	Male students		Female students	
	Most troublesome	Most frequent	Most troublesome	Most frequent
Talking out of turn	45.4	50.5	45.4	51.5
Hindering other children	14.4	13.4	13.4	15.5
Idleness/slowness	8.2	15.5	12.4	16.5
Disobedience	8.2	6.2	6.2	2.1
Other	0.0	0.0	9.3	9.3
Physical aggression	12.4	2.1	1.0	0.0
Out of seat	3.1	2.1	5.2	3.1
Talking back	4.1	1.0	6.2	2.1
Noise	3.1	5.2	0.0	0.0
Untidiness	1.0	3.1	0.0	0.0
Unpunctuality	0.0	1.0	1.0	0.0
Eating	0.0	0.0	0.0	0.0

Note: Figures shown are percentages.

28.9% reported having to manage student behaviour problems three to four times in a typical day, and 23.7% of teachers reported managing student behaviour problems once or twice per day. All teachers reported having to deal with student behaviour problems in a typical day of teaching.

Teacher behaviour

Teachers reported that they were more likely to use proactive classroom management strategies than reactive classroom management strategies. Table 2 depicts the mean rating given by primary school teachers for each of the 12 specified classroom management strategies.

Table 2 shows that teachers reported that they were least likely to use the reactive strategy of corporal punishment, while they were most likely to use the proactive strategy of spending time and energy to help a child. Overall, teachers reported that they were 'likely' to 'somewhat likely' to use proactive classroom management strategies. They also reported that they were 'somewhat unlikely' to use reactive classroom management strategies.

Table 2. Mean ratings for specific classroom management strategies.

Proactive strategies		Reactive strategies	
Listen actively and negotiate commitments	3.84	Recommend drug medications	1.14
Instruct the child in coping skills	3.62	Use lectures and threats	2.09
Modify the current teaching style	3.28	Use rewards and punishments	3.69
Spend time and energy to help the child	3.90	Have the child removed	2.57
Read articles about the problem	2.97	Use corporal punishment	1.05
Provide nurturance and support	3.79		
State the rules and expect compliance	3.88		
Overall mean rating	3.61		2.11

Note: A ranking of 1 is 'extremely unlikely', while a ranking of 3 is 'likely', on a scale of 1–5.

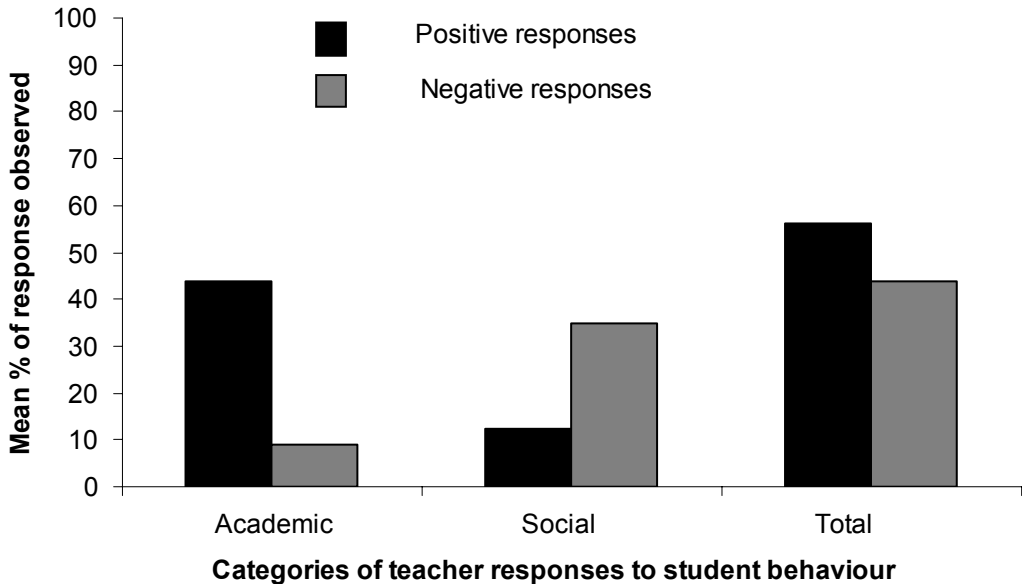


Figure 1. Mean percentages of observed teacher responses to student behaviour.

Overall, teachers were observed as being more positive than negative in their responses to student behaviours. Figure 1 shows the observed positive and negative teacher responses to student behaviour. Figure 1 demonstrates that although teachers responded to students' academic behaviours more positively than negatively (e.g., 'Keep up the good work'), a greater average number of negative responses were observed in relation to students' social behaviours (e.g., 'Sit still while I am talking!'). The mean percentages of positive responses to academic and social behaviours were 43.93% and 12.29% respectively, while the mean percentages of negative responses to academic and social behaviours were 8.82% and 34.96% respectively.

Of the teachers surveyed, 84% believed that they had sufficient knowledge to manage student behaviour. Moreover, nearly half of the teachers (49.5%) reported 'much confidence' in managing student behaviour, while a quarter (25.8%) reported being 'extremely confident' in managing student behaviour. Only 2.1% of teachers reported 'little confidence' in managing student misbehaviours.

In addition, teachers were asked to indicate their preferred methods of gaining knowledge about managing classroom behaviour problems. Table 3 provides the mean ratings for five methods.

Table 3 shows that teachers reported advice from other teachers and staff in-services (professional development seminars run by consultants and experts in the relevant field) as their most preferred methods of gaining knowledge for managing student behaviour. Using tip sheets and consulting with a psychologist were given mean rankings of 'prefer'. Many teachers disliked using a book to gain knowledge on managing student behaviour.

Self-reported versus actual use of management strategies

Pearson correlations were conducted to analyse the relationship between self-reported and actual use of classroom management strategies. Table 4 shows the correlation matrix of this self-reported and actual use.

Table 3. Mean ratings for methods of gaining knowledge on classroom management.

Method of gaining knowledge	Mean rank
Advice from teachers	4.34
Staff in-service	4.12
Tip sheet	3.97
Consultation with psychologist	3.89
Book	2.86

Note: A ranking of 2 indicates 'dislike' and a ranking of 4 indicates 'prefer' on a scale of 1–5.

Table 4 shows that a significant positive correlation was found between observed negative social teacher responses and the reported use of reactive management strategies, and between observed overall positive teacher responses and the reported use of proactive management strategies. In addition, significant negative correlations were found between observed negative social teacher responses and the reported use of proactive management strategies, and between observed overall negative teacher responses and the reported use of proactive management strategies.

Teacher stress: relationship with management strategies and teacher variables

In order to examine the relationship between teacher stress and management strategies, the sources of stress in teaching were separated into five distinct dimensions: workload, student misbehaviour, professional recognition, time/resource difficulties, and poor colleague relations. The mean ratings of the five dimensions of teacher stress for those surveyed are shown in Table 5.

Table 5 demonstrates that teachers perceived workload and student misbehaviour to be the two highest sources of stress. Given that the Teacher Stress Inventory has a maximum score of 80, the overall mean rating of total stress calculated by summing each individual teacher's items on the scale and then averaging this across teachers (35.39) indicates that teachers within the sample were only moderately stressed.

A multivariate regression analysis was performed to examine whether various teacher variables (i.e., gender, qualifications, years teaching) and/or the use of management strategies predicted the five dimensions of teacher stress. Results are shown in Table 6.

Table 4. Correlation matrix of self-reported and actual use of classroom management strategies.

	Self-reported management strategies					
	Reactive			Proactive		
	<i>r</i>	<i>p</i>	<i>R</i> ²	<i>r</i>	<i>p</i>	<i>R</i> ²
Observed responses						
Positive academic	-.37	.11	.14	.41	.07	.17
Positive social	-.32	.17	.10	.39	.09	.15
Positive (overall)	-.41	.07	.17	.48*	.03	.23
Negative academic	-.17	.49	.03	-.01	.97	< .01
Negative social	.53*	.02	.28	-.54*	.01	.29
Negative (overall)	.41	.07	.17	-.48*	.03	.23

**p* < .05, two-tailed; *n* = 20.

Table 5. Mean ratings of the dimensions of teacher stress.

	<i>M</i>	<i>SD</i>
Teacher stress dimension		
Workload stress	2.35	0.82
Student misbehaviour stress	1.93	0.78
Time/resource difficulties stress	1.85	0.75
Poor colleague relations stress	1.58	0.88
Professional recognition stress	1.29	0.84
Total stress	35.39	12.84

Note: A rating of 1 is 'mild stress', while a rating of 2 is 'moderate stress', on a scale of 0–4; $n = 97$.

The multivariate effects reported in Table 6 demonstrate that the use of proactive strategies, gender, level of qualification, and years of teaching experience were not significant predictors of teacher stress. The use of reactive strategies was a significant predictor of teacher stress, with univariate results indicating that teachers' use of reactive strategies was a significant predictor of workload stress, student misbehaviour stress, time/resource difficulties stress, and poor colleague relations stress in teachers. Pearson correlations were conducted to analyse the direction and strength of these relationships. Significant positive correlations were found between the use of reactive strategies and workload stress ($r[n = 97] = .24, p = .02, R^2 = .06$), student misbehaviour stress ($r[n = 97] = .31, p = .002, R^2 = .10$), time/resource difficulties stress ($r[n = 97] = .29, p = .004, R^2 = .08$), and poor colleague relations stress ($r[n = 97] = .29, p = .004, R^2 = .08$). Hence, the use of reactive management strategies was associated with increased stress in teachers.

Management strategies and student behaviour

Pearson correlations were conducted to determine the relationship between observed student behaviour and self-reported management strategies. The results are shown in Table 7, which demonstrates that a significant negative correlation was found between the reported use of reactive management strategies and student on-task behaviour. The self-reported use of proactive management strategies did not have a significant relationship with student on-task behaviour.

Pearson correlations were also conducted to determine the relationship between student on-task behaviour and actual use of management strategies. These results are shown in Table 8, which shows that significant positive correlations were found between observed positive academic responses and student on-task behaviour, between observed positive social responses and student on-task behaviour, and between observed positive overall responses and student on-task behaviour. Significant negative correlations were found between observed negative social responses and student on-task behaviour, and between observed negative overall responses and student on-task behaviour. Interestingly, a significant negative correlation was not found between observed negative academic responses and student on-task behaviour.

Discussion

The primary aims of this investigation were to examine the relationship between primary school teachers' self-reported and actual use of management strategies, and to identify how the use of proactive and reactive strategies is related to teacher stress and student

Table 6. Management strategies and teacher variables as predictors of teacher stress.

Predictor	<i>F</i>	<i>p</i>	η^2
Reactive strategies			
Multivariate	3.70	.004**	.17
Workload stress	6.02	.02*	.06
Student misbehaviour stress	10.05	.002**	.10
Professional recognition stress	0.85	.36	.01
Time/resource difficulties stress	8.85	.004**	.09
Poor colleague relations stress	8.72	.004**	.08
Proactive strategies			
Multivariate	1.06	.39	.06
Workload stress	0.02	.88	< .01
Student misbehaviour stress	2.71	.10	.03
Professional recognition stress	0.01	.91	< .01
Time/resource difficulties stress	0.01	.97	< .01
Poor colleague relations stress	0.01	.93	< .01
Gender			
Multivariate	1.58	.17	.08
Workload stress	0.12	.73	< .01
Student misbehaviour stress	0.67	.42	.01
Professional recognition stress	2.48	.12	.03
Time/resource difficulties stress	0.38	.54	< .01
Poor colleague relations stress	0.59	.45	.01
Qualifications			
Multivariate	1.26	.29	.07
Workload stress	1.50	.22	.02
Student misbehaviour stress	0.03	.87	< .01
Professional recognition stress	0.24	.63	< .01
Time/resource difficulties stress	0.76	.38	.01
Poor colleague relations stress	3.36	.07	.03
Years teaching			
Multivariate	1.76	.13	.09
Workload stress	4.68	.03*	.05
Student misbehaviour stress	0.02	.90	< .01
Professional recognition stress	0.72	.40	.01
Time/resource difficulties stress	0.08	.77	< .01
Poor colleague relations stress	0.88	.35	.01

p* < .05; *p* < .01; *n* = 97.

behaviour. The results indicate that there is a strong relationship between self-report data and actual practice. That is, for the subsample of teachers who were observed, there was a positive relationship between reported use of reactive management strategies and observed negative responses, and between reported use of proactive management strategies and observed positive responses. These results validate the use of self-report measures of teacher behaviour in educational research.

Table 7. Correlation matrix of student behaviour and self-reported management strategies.

	Percent of on-task student behaviour		
	<i>r</i>	<i>p</i>	<i>R</i> ²
Self-reported management strategies			
Reactive	-.53*	.02	.28
Proactive	.31	.19	.10

**p* < .05, two-tailed; *n* = 20.

The hypothesis that teachers using predominantly reactive strategies would report elevated stress was supported, as the reported use of reactive strategies by teachers was a strong predictor of workload stress, student misbehaviour stress, time/resource difficulties stress, and poor colleague relations stress. The hypothesis that teachers would be less stressed if they reported using predominantly proactive strategies was not supported. In addition, the hypothesis that students would show higher amounts of on-task behaviour if their teacher used predominantly proactive approaches and positive responses, and would show lower amounts of on-task behaviour if their teacher used predominantly reactive approaches and negative responses, was partially supported. The reported use of reactive management strategies and observed negative teacher responses was associated with decreased student on-task behaviour. However, while there was a strong relationship between reactive strategies and student behaviour, the relationship between proactive strategies and student behaviour was not significant.

Student behaviour

The results of this study indicate that student misbehaviour is a considerable concern for primary school teachers. The findings from the present investigation appear to substantiate claims made by Farrell (2005), Little et al. (2000), and Little (2003) that there are many students in a typical classroom, in addition to the 6% of students who have severe behaviour problems, whose behaviour significantly interferes with either their own or others' learning. The observational component of the study further validated these claims, with the finding that only approximately 70% of students display on-task behaviour at any given time. Previous research has reported similar levels of student on-task behaviour (Beaman, 2006; Merrett & Wheldall, 1986; Wheldall et al., 1989). It is hardly surprising, then, that nearly

Table 8. Correlation matrix of student behaviour and actual use of management strategies.

	Percent of on-task student behaviour		
	<i>r</i>	<i>p</i>	<i>R</i> ²
Observed responses			
Positive academic	.67**	.001	.45
Positive social	.54*	.01	.29
Positive (overall)	.74**	< .001	.55
Negative academic	-.22	.36	.05
Negative social	-.77**	< .001	.59
Negative (overall)	-.74**	< .001	.55

p* < .05, two-tailed; *p* < .01, two-tailed; *n* = 20.

half of the teachers surveyed reported managing student behaviour problems five or more times in a typical day of teaching.

In accordance with previous investigations conducted in primary and secondary schools (Beaman, 2006; Infantino & Little, 2005; Little, 2005; Little et al., 2002; Stephenson et al., 2000; Wheldall, 1991; Wheldall & Merrett, 1988), TOOT was reported as being the most troublesome and frequently occurring behaviour in both male and female students. Furthermore, HOC and idleness/slowness were found to be the next most troublesome and next most frequently occurring behaviours respectively. These findings add weight to the claims that relatively minor student behaviours are the ones which cause teachers most concern (Little, 2005), and that disruptive student behaviour remains a significant concern in Australian schools (Beaman & Wheldall, 2000; Little et al., 2000). Given the high incidence of behaviour problems in schoolchildren, it is imperative that teachers utilise effective strategies to manage student behaviours.

Teacher behaviour

Teachers in this study reported favouring the use of proactive management strategies, such as active listening, more than reactive strategies, such as using lectures or threats. This finding was to be expected, considering that investigations in the past have noted that teachers report favouring proactive strategies over reactive approaches (Poulou & Norwich, 2000; Witt, Van Der Heyden, & Gilbertson, 2004). However, Infantino and Little (2005) have argued that it is common practice for teachers to use strategies that are not recognised as being effective in managing student misbehaviour. Indeed, some research has established that although teachers report using proactive strategies, actual practice does not bear this out (Poulou & Norwich, 2000).

The current investigation took a relatively novel approach – in order to determine how closely teacher self-reports aligned with actual classroom practice, both questionnaire and observational data were obtained. In the present investigation, the observational data validated the self-report findings. That is, it was observed that positive teacher responses outweighed negative teacher responses to student behaviour, just as the reported use of proactive strategies outweighed the reported use of reactive strategies. Thus, as in the Beaman (2006), Merrett and Wheldall (1986), and Wheldall et al. (1989) investigations, teachers in the present study were generally more approving of student behaviour than disapproving. However, as Beaman and Wheldall (2000) have noted, research into teacher behaviour has led to variable findings, with some Australian research concluding that teachers generally display lower incidences of praise than reprimand (Martin et al., 1999).

As in previous research (Beaman, 2006; Wheldall et al., 1989; Wilks, 1996), most of the observed positive teacher responses in the present study were directed toward student academic behaviour, while most of the observed negative teacher responses were directed toward student social behaviour. While it can be argued on logical grounds that inappropriate social behaviour, which is usually disruptive, demands a negative response from the teacher, it is difficult to explain why such a small amount of positive teacher attention is given to appropriate social behaviour (Wilks, 1996). It appears that teachers' less than optimal use of approval and disapproval could be responsible for discouraging appropriate behaviour, particularly appropriate social behaviour, in the classroom (Beaman & Wheldall, 2000).

In agreement with findings from the Giallo and Little (2003) and Stephenson and colleagues (2000) investigations, the majority of teachers in this study reported sufficient knowledge and confidence in their ability to manage their students. This result is not

surprising, given that many teachers were utilising proactive strategies and positive responses to student behaviour – methods that are strongly advocated in current education literature. Slightly unexpected, perhaps, was the finding that only 2.1% of teachers reported little confidence in managing student misbehaviours. This result implies that teachers rarely require assistance with classroom management issues. However, many teachers noted that they do in fact seek assistance in order to manage disruptive classroom behaviour. In accordance with previous research (Little, 1999; Martin et al., 1999), teachers rated advice from other teachers as the most preferred method of gaining knowledge on classroom management. The precise reasons why teachers continually report a preference for this method are not well established. Martin and colleagues (1999) surmised that teachers feel more comfortable exposing classroom difficulties to school-based personnel rather than to ‘experts’ outside their environment.

Teacher stress

Overall, moderate levels of stress were found in this sample, with workload stress and student misbehaviour stress being the most prominent sources. The well-established reports of student behaviour problems in schools may explain the likely occurrence of student misbehaviour stress in teachers (Hastings & Bham, 2003). The remaining three sources of teacher stress investigated here – professional recognition needs, time/resource difficulties, and poor colleague relations – were perceived as less stressful. Similar results have been found frequently in previous research (Boyle et al., 1995; Cooper & Kelly, 1993; Griffith et al., 1999; McGrath et al., 1989). However, there are some exceptions. For instance, Whitehead and Ryba (1995) found that staff relationship problems were one of the main sources of stress in teachers. It can be assumed that specific school cultures may influence the presence of poor colleague relations stress.

In the present investigation, the use of reactive management strategies predicted four of the five dimensions of teacher stress: workload, student misbehaviour, time/resource difficulties, and poor colleague relations stress. However, the use of proactive management strategies did not predict any of the dimensions of teacher stress. One explanation for these findings may be that the more negative teachers are in their approach to classroom management, the more likely they are to experience elevated stress. In contrast to these findings, Beaman (2006) found no relationship between teacher stress scores and teacher responses to student behaviour. The discrepancy noted between these findings may be explained by the fact that while Beaman (2006) sampled secondary school teachers, the present study examined stress in primary school teachers.

Management strategies and student behaviour

Previous research has supported the use of proactive management strategies and positive responses to student behaviour, stating that there is a strong association between the use of such strategies and increased student on-task behaviour (Arthur et al., 2003; Houghton et al., 1990; Porter, 1996; Wheldall et al., 1989). The findings from the current investigation present a slightly different view. It appears that while the reported use of reactive management strategies and negative responses to student behaviour had a strong relationship with decreased student on-task behaviour, the reported use of proactive management strategies were not significantly associated with increased student on-task behaviour. In the present investigation, there was a significant association between positive teacher responses and increased student on-task behaviour. It is important to note that, due to the use of correlational analyses,

it is possible that decreased on-task behaviour lead to the adoption of reactive management strategies, rather than the reverse.

These findings raise some uncertainty regarding the value of proactive management strategies. One explanation may be that it is not the use of proactive approaches that results in increased student on-task behaviour; rather, employing predominantly proactive approaches negates the possibility of utilising predominantly reactive approaches – which are strongly associated with decreased student on-task behaviour. Thus, teachers who employ predominantly proactive approaches to student behaviour may not necessarily be utilising the most effective strategies; however, they are not employing ineffective approaches. This emerging view of proactive and reactive strategies has recently become evident in both school and home contexts (Beaman, 2006; Gardner et al., 1999).

Methodological limitations

There are several methodological limitations that require consideration when interpreting the results of this investigation. One issue that may have impacted on the results of this study is that of sampling bias. In particular, the overall moderate level of stress found in this sample may reflect a form of sampling bias. Teachers who volunteered for this study may have differed in stress levels and management strategies from the teachers who did not volunteer. Stressed teachers may not have agreed to participate as it would have added to their already heightened stress, while the teachers who did participate may have been those who were generally less stressed and used more effective strategies. However, many teachers in the sample reported being highly stressed and using reactive management strategies, which is indicative of a wide representation of teachers.

Second, a relatively small number of teachers participated in the observation component of the research. Many teachers were reluctant to be observed in their classroom while teaching, stating that they were deterred by the idea that their teaching practice was in some way being evaluated. It is likely that the more confident and less stressed teachers volunteered to be observed. Furthermore, the observations were not conducted by an independent observer, and neither were there observer reliability checks due to time and resource restrictions, which is a major limitation of this study. It is recommended that independent observers are utilised if this study is replicated, and that a minimum of 20% of the observation sessions be carried out by two observers to determine observer reliability. Finally, the study predominantly used correlational analyses, and therefore no statements can be made about causation. For instance, it is possible that perceptions of intense stress lead to the adoption of reactive management strategies rather than the reverse.

Conclusion and future research

The current investigation found that teacher self-reports are a reasonably accurate reflection of classroom practice. However, due to the rather small sample and the relatively novel approach of matching questionnaire and observation data, it is advised that this research is replicated. This study has indicated that relatively minor forms of student misbehaviours remain a common concern for primary school teachers. Although the majority of teachers are confident in their ability to manage student behaviour and are employing proactive approaches, they are still spending a considerable amount of time engaged in behaviour management practices.

This investigation has also indicated that the use of reactive management strategies has a positive relationship with teacher stress and an inverse relationship with student on-task

behaviour. Whether this relationship eventually affects teacher burnout and attrition from the profession is unknown and requires investigation. It is also important to ascertain the extent to which teacher training courses and professional development seminars are informing pre-service and in-service teachers of effective classroom management practices. Current research regarding effective behaviour management principles, and their relationship with teacher stress and student behaviour, needs to be communicated to teachers. Such preventative measures will assist in reducing teacher stress and increasing student learning opportunities.

References

- Arthur, M., Gordon, C., & Butterfield, N. (2003). *Classroom management: Creating positive learning environments*. Australia: Thomson.
- Austin, J.L., & Agar, G. (2005). Helping young children follow their teachers' directions: The utility of high probability command sequences in pre-k and kindergarten classrooms. *Education and Treatment of Children, 3*, 222–237.
- Australian Bureau of Statistics, (2006). *Schools Australia* (Publication 4221.0). Canberra, Australia: National Information Service.
- Beaman, R. (2006). *Behavioural interactions in the secondary school between teachers and students: What they say, what they do*. Unpublished dissertation, Macquarie University, Sydney, Australia.
- Beaman, R., & Wheldall, K. (2000). Teachers' use of approval and disapproval in the classroom. *Educational Psychology, 20*, 431–446.
- Boyle, G.J., Borg, M.G., Falzon, J.M., & Baglioni, A.J. (1995). A structural model of the dimensions of teacher stress. *British Journal of Educational Psychology, 65*, 49–67.
- Center, D.B., & Callaway, J.M. (1999). Self-reported job stress and personality in teachers of students with emotional or behavioural disorders. *Behavioural Disorders, 25*, 41–51.
- Cooper, C.L., & Kelly, M. (1993). Occupational stress in head teachers: A national UK study. *British Journal of Educational Psychology, 63*, 130–143.
- Farrell, P. (2005). Teachers, parents and classroom behaviour: A psychosocial approach. *British Journal of Educational Psychology, 75*, 336–338.
- Fergusson, D.M., Horwood, L.J., & Lynskey, M. (1994). The childhoods of multiple problem adolescents: A fifteen year longitudinal study. *Journal of Child Psychology and Psychiatry, 35*, 1123–1140.
- Fontana, D., & Abouserie, R. (1993). Stress levels, gender and personality factors in teachers. *British Journal of Educational Psychology, 63*, 261–270.
- Gardner, F., Sonuga-Barke, E., & Sayal, K. (1999). Parents anticipating misbehaviour: An observational study of strategies parents use to prevent conflict with behaviour problem children. *Journal of Child Psychology and Psychiatry, 40*, 1185–1196.
- Giallo, R., & Little, E. (2003). Classroom behaviour problems: The relationship between preparedness, classroom experiences and self-efficacy in graduate and student teachers. *Australian Journal of Educational and Developmental Psychology, 3*, 21–34.
- Good, T.L., & Brophy, J.E. (1994). *Looking into classrooms* (6th ed.). New York: Harper & Row.
- Good, T.L., & Brophy, J.E. (2000). *Looking into classrooms* (8th ed.). New York: Longman.
- Griffith, J., Steptoe, A., & Cropley, M. (1999). An investigation of coping strategies associated with job stress in teachers. *British Journal of Educational Psychology, 69*, 517–531.
- Harris, K.R., Halpin, G., & Halpin, G. (1985). Teacher characteristics and stress. *Journal of Educational Research, 78*, 346–350.
- Hastings, R.P., & Bham, M.S. (2003). The relationship between student behaviour patterns and teacher burnout. *School Psychology International, 24*, 115–127.
- Herrera, M., & Little, E. (2005). Behaviour problems across home and kindergarten in an Australian sample. *Australian Journal of Educational and Developmental Psychology, 5*, 77–90.
- Houghton, S., Wheldall, K., Jukes, R., & Sharpe, A. (1990). The effects of limited private reprimands and increased private praise on classroom behaviour in four British secondary school classes. *British Journal of Educational Psychology, 60*, 255–265.
- Infantino, J., & Little, E. (2005). Students' perceptions of classroom behaviour problems and the effectiveness of different disciplinary methods. *Educational Psychology, 25*, 491.
- Kyriacou, C. (1987). Teacher stress and burnout: An international review. *Educational Research, 29*, 146–152.

- Kyriacou, C., & Pratt, J. (1985). Teacher stress and psychoneurotic symptoms. *British Journal of Educational Psychology*, 55, 61–64.
- Kyriacou, C., & Sutcliffe, J. (1977). Teacher stress: A review. *Educational Review*, 29, 299–305.
- Lazarus, R.S. (1993). From psychological stress to the emotions: A history of changing outlooks. *Annual Review of Psychology*, 44, 1–22.
- Lewis, R., Romi, S., Qui, X., & Katz, Y.J. (2003). *A comparison of teachers' classroom discipline in Australia, China and Israel*. Unpublished manuscript, LaTrobe University, Bundoora, Australia.
- Little, E. (1999). *Conduct disorder: Generalisation across settings and implications for home and school based interventions*. Bundoora, Victoria: RMIT University, Department of Psychology and Disability Studies.
- Little, E. (2003). *Kids behaving badly: Teacher strategies for classroom behaviour*. Frenchs Forest Australia, Australia: Pearson Education.
- Little, E. (2005). Secondary school teachers' perceptions of students' problem behaviours. *Educational Psychology*, 25, 369–378.
- Little, E., & Hudson, A. (1998). Conduct problems and treatment across home and school: A review of the literature. *Behaviour Change*, 15, 213–227.
- Little, E., Hudson, A., & Wilks, R. (2000). Conduct problems across home and school. *Behaviour Change*, 17, 1–9.
- Little, E., Hudson, A., & Wilks, R. (2002). The efficacy of written teacher advice (tip sheets) for managing classroom behaviour problems. *Educational Psychology*, 22, 251–266.
- Long, B.C., & Gessaroli, M.E. (1989). The relationship between teacher stress and perceived coping effectiveness: Gender and marital differences. *The Alberta Journal of Educational Research*, 35, 308–324.
- Martin, A.J., Linfoot, K., & Stephenson, J. (1999). How teachers respond to concerns about misbehaviours in their classroom. *Psychology in the Schools*, 36, 347–358.
- McGrath, A., Houghton, D., & Reid, N. (1989). Study report: Occupational stress, and teachers in Northern Ireland. *Work and Stress*, 3, 359–368.
- Merrett, F., & Wheldall, K. (1986). Observing Pupils and Teachers in Classrooms (OPTIC): A behavioural observation schedule for use in schools. *Educational Psychology*, 6, 57–70.
- Miller, A. (1995). Teachers' attributions of causality, control and responsibility in respect of difficult pupil behaviour and its successful management. *Educational Psychology*, 15, 457–471.
- Miller, A., Ferguson, E., & Byrne, I. (2000). Pupils' causal attributions for difficult classroom behaviour. *British Journal of Educational Psychology*, 70, 85–96.
- Pithers, R.T., & Soden, R. (1998). Scottish and Australian teacher stress and strain: A comparative analysis. *British Journal of Educational Psychology*, 68, 269–279.
- Porter, L. (1996). *Student behaviour: Theory and practice for teachers*. Sydney, Australia: Allen & Unwin.
- Poulou, M., & Norwich, B. (2000). Teachers' causal attributions, cognitive, emotional and behavioural responses to students with emotional and behavioural difficulties. *British Journal of Educational Psychology*, 70, 559–582.
- Safran, S., & Oswald, K. (2003). Positive behaviour supports: Can schools reshape disciplinary practices? *Council for Exceptional Children*, 69, 361–373.
- Stephenson, J., Linfoot, K., & Martin, A.J. (2000). Behaviours of concern to teachers in the early years of school. *International Journal of Disability, Development and Education*, 47, 225–235.
- Wheldall, K. (1991). Managing troublesome classroom behaviour in regular schools: A positive teaching perspective. *International Journal of Disability, Development and Education*, 38, 99–116.
- Wheldall, K., Houghton, S., & Merrett, F. (1989). Natural rates of teacher approval and disapproval in British secondary school classrooms. *British Journal of Educational Psychology*, 59, 38–48.
- Wheldall, K., & Merrett, F. (1988). Which classroom behaviours do primary school teachers say they find most troublesome. *Educational Review*, 40, 13–27.
- Whitehead, A.J., & Ryba, K. (1995). New Zealand teachers' perceptions of occupational stress and coping strategies. *New Zealand Journal of Educational Studies*, 30, 177–188.
- Wilks, R. (1996). Classroom management in primary schools: A review of the literature. *Behaviour Change*, 13, 20–32.
- Witt, J.C., Van Der Heyden, A., & Gilbertson, D. (2004). Troubleshooting behavioural interventions: A systematic process for finding and eliminating problems. *School Psychology Review*, 33, 363–384.

Copyright of Educational Psychology is the property of Routledge and its content may not be copied or emailed to multiple sites or posted to a listserv without the copyright holder's express written permission. However, users may print, download, or email articles for individual use.

Copyright of Educational Psychology is the property of Routledge and its content may not be copied or emailed to multiple sites or posted to a listserv without the copyright holder's express written permission. However, users may print, download, or email articles for individual use.