

The relationship between extra-role behaviours and job burnout for primary school teachers: A preliminary model and development of an organisational citizenship behaviour scale.

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Recent research on teacher stress in primary schools (e.g. Leonard, Bourke & Schofield, 1999) has shown that higher levels of teacher exhaustion are associated with higher levels of student satisfaction. This paper seeks to explain this surprising finding by considering a construct discussed widely in the organisational literature known as extra-role or organisational citizenship behaviour (OCB). Teacher OCB may include extra efforts to make lessons enjoyable and interesting, organising extra-curricular activities and spending personal time talking with students. The proposed model of analysis also draws on literature relating to job burnout (Maslach, 1982), which generally suggests that the three components of chronic occupational stress - exhaustion, depersonalisation and reduced accomplishment - occur together. However, this paper proposes that although teachers who engage in more OCB experience more exhaustion, they may simultaneously increase their feelings of personal accomplishment and work identification, which may in turn help to avert burnout. It is argued that only with this particular set of job attitudes are the effects of exhaustion caused by high levels of OCB sufficiently buffered to avoid job burnout, and thus positively affect students' quality of school life. The development and piloting of an instrument to measure teachers' OCB will be discussed. The preliminary findings reported herein are part of a larger ongoing study investigating the consequences of stress and OCB in primary school teachers.

Introduction

Organisational citizenship behaviours (or OCBs) are discretionary workplace behaviours that exceed one's basic job requirements. They are often described as behaviours that "go above and beyond the call of duty". Not surprisingly, OCBs are considered to arise, at least in part, from intrinsic motivation including a positive mood state and the need for affiliation or a sense of achievement (Organ, 1988). In a separate vein, research shows that the components of chronic, long-term stress, otherwise known as *burnout*, can negatively affect variables associated with intrinsic motivation including one's energy levels, engagement with work and sense of achievement (Maslach, 1982). It would seem logical then to assume that strain and exhaustion exert a negative effect on OCB, however it is the aim of this paper to argue that the association between OCB and burnout may be somewhat more complex due to the various facets of each construct. Moreover, whether or not the facets of one construct affect facets of the other may depend on the nature of the work as well as the interaction between various workplace and individual variables.

Both bodies of literature have cited perceptions of fairness in the workplace as significant predictor variables (Tepper, 2001; Gabris & Ihrke, 2001; Podsakoff et al, 2000), although in different directions (i.e. positively for OCB and negatively for burnout). The personality trait commonly called *agreeableness* is also a significant antecedent of both constructs (Piedmont, 1993; Organ & Ryan, 1995) however in the same direction (i.e., it seems to contribute to burnout *and* OCB). An examination of the common issues in the two research areas, and of certain counter-intuitive findings in the stress and performance literature (discussed later) begs the question: could OCB add to, or be affected by, the various components of burnout under certain conditions?

The first half of this paper gives a brief overview of the relevant OCB and burnout literature. Special attention is paid to the features of each construct that overlap or share potentially related qualities. A key study involving teacher stress and performance is then reviewed in order to demonstrate a rationale for the proposed model. A brief description and explanation of this model follows. The new model represents how it might be possible for an employee to report significant feelings of strain and still demonstrate OCB. It also attempts to capture some of the possible dynamics that occur between employee exhaustion, OCB and feelings of personal accomplishment. Finally, some preliminary results regarding the development of a measure of teacher OCB are discussed.

Organisational citizenship behaviours (OCBs)

Derived from Katz's (1964) notion of extra-role behaviours, OCBs have been defined as "individual behaviours that are discretionary, not directly or explicitly recognized by the formal reward system, and that in the aggregate promote the effective functioning of an organisation" (Organ, 1988, p. 4). Despite the proliferation of research in this area, debate continues over the precise definition or operationalisation of OCB. This is partly because most OCB research has focused on understanding the relationships between OCB and other constructs, rather than carefully defining the nature of the construct itself.

Notwithstanding, a distinguishing feature is that supervisors cannot require or force their subordinates to perform OCBs. Similarly, employees do not or cannot expect any kind of systematic rewards for these behaviours. However, as Organ (1997) has noted, supervisors do regularly take into account and reward OCBs both directly and indirectly (e.g. preferential treatment, performance ratings, promotions, etc). Another important assertion, especially in Organ's (1988) founding work on OCB, is that these behaviours are often internally motivated, arising from and sustained by an individual's intrinsic need for a sense of achievement, competence, belonging or affiliation.

Antecedents of OCB

It is important to note that OCBs have been categorised on the basis of common themes or dimensions, and include *altruism* or helping behaviour, *conscientiousness*, *organisational compliance*, *individual initiative* and *civic virtue* (Podsakoff et al, 2000). Some researchers (e.g. Williams & Anderson, 1991) have also divided OCB into two types: behaviour that is directed at individuals in the organisation (OCBI) and behaviour that is concerned with helping the organisation as a whole (OCBO). A wide range of employee, task, organisational and leader characteristics are consistently found to predict different types of OCB across a range of occupations (Podsakoff et al, 2000). This section considers the various individual and organisational variables commonly found to affect an employee's willingness to engage in OCB.

Job satisfaction and organisational commitment

Along with job satisfaction, affective organisational commitment is the most common affective dimension cited as an antecedent of OCB. Affective commitment is conceptualized as a strong belief in, and acceptance of, an organisation's goals and a strong desire to maintain membership in the organisation (Van Dyne et al., 1995). Because affective commitment maintains behavioural direction when there is little expectation of formal rewards (Allen & Meyer, 1996), it would seem logical that affective commitment drives those behaviours that do not depend primarily on reinforcement or formal rewards.

Leader behaviours

Leadership appears to have a strong influence on an employee's willingness to engage in OCBs. However, rather than being associated with a particular leadership style, research finds that it is the *quality* of an employee's relationship with his or her leader that counts (Podsakoff et al., 2000). The quality of the relationship between a subordinate and a leader is often called leader-member exchange (LMX). Another leadership variable positively related to OCB is the leaders' contingent reward behaviours, such as expressing satisfaction or appreciation for good performance (Podsakoff et al, 2000). Leadership behaviours may also influence OCB indirectly via employee perceptions of fairness or justice in the workplace.

Fairness perceptions

Fairness or justice perceptions refer to whether or not employees feel organisational decisions are made equitably and with the necessary employee input (usually called *procedural justice*) and whether or not employees perceive that they are fairly rewarded given their level of training, tenure, responsibility or workload (called *distributive justice*). Perceptions of fairness are positively related to OCB (Moorman, 1991).

Role perceptions

Role perceptions (or *role stressors* as they are sometimes called) include perceptions such as role conflict and role ambiguity, both of which have been found to be significantly negatively related to OCBs. On the other hand, role clarity and role facilitation are positively related (Podsakoff et al., 2000). However, since both role ambiguity and role conflict are known to affect employee satisfaction, and satisfaction is related to OCB, it is likely that at least a portion of the relationship between ambiguity, conflict and OCBs is mediated by satisfaction.

Individual dispositions

Personality variables including positive affectivity, negative affectivity, conscientiousness and agreeableness have all been found to predispose people to orientations that make them more likely to engage in OCBs (Organ & Ryan, 1995). OCB does not seem to depend on traits such as extraversion, introversion, or openness to change. The fact that OCB is conceptualised as a set of behaviours primarily influenced by perceptions of the workplace (rather than by enduring personal traits) might be why measures of personality have not been widely applied in studies of OCB. Nonetheless, personality may be an important measure in order to control for its influence on behaviour or to investigate any moderating effects it may have.

How these characteristics relate to burnout

In considering how these same variables might exacerbate teacher strain and exhaustion (via low LMX, low rewards, injustice, etc), and how strain might in turn affect OCB, it is tempting to conclude *prima facie* that workers who experience high levels of strain will engage in less OCB. Indeed, experimental social research has found that a reliable after-effect of task overload, lack of feedback and other stressors is a disinclination to help others (Cohen, 1980; Motowido, Packard & Manning, 1986). However, this assumption has not been empirically tested in organisational or educational contexts, and in fact other social psychological research suggests that people obtain intrinsic satisfaction, a "warm afterglow" and feelings of "success" subsequent to engaging in helpful or prosocial behaviours (Krebs, 1970; Tang, Hamid & Ibrahim, 1998). Thus, in a complex and ever-changing work environment, the relationship between OCB and stress is not likely to be as clear-cut as in experimental situations. The following section summarizes relevant findings on a notable type of stress - psychological burnout - in an attempt to shed light on the possible relationships between stress and OCB.

Burnout

Burnout has been researched extensively in teaching and other helping professions, such as nursing and social work. Burnout is defined as a chronic affective response pattern to stressful work conditions that feature high levels of interpersonal contact (Ganster & Schaubroeck, 1991). It is generally considered to consist of three components. *Exhaustion* refers to feelings of being emotionally over-extended. *Depersonalisation* refers to negative, callous or detached responses to other people. *Reduced personal accomplishment* is described as a negative sense of one's own job performance. Maslach (1976, 1982) laid much of the groundwork for the study of burnout and developed the Maslach Burnout Inventory (MBI) for measuring its three components.

Earlier researchers (e.g. Kahn, 1978) generally regarded burnout as a global set of consequences caused by ongoing occupational strain. The three components were first thought to occur sequentially, via a process whereby stressful work conditions lead to exhaustion, followed by depersonalisation (used as a coping mechanism) and proceeded by a reduction in feelings of personal accomplishment. However more recent evidence suggests that the three elements of burnout do not occur equally within all individuals. For example, Berg (1994) found significantly higher levels of exhaustion in teachers than of depersonalisation and reduced accomplishment. Interestingly, when compared to the standardized burnout scores for US school teachers (available in Maslach & Jackson, 1986), Berg's sample scored significantly higher on exhaustion and significantly lower on depersonalisation and personal accomplishment burnout.

Furthermore, Schwanz (1996) found support for two different models of burnout; one that fitted Maslach's original idea (high exhaustion + high depersonalisation + low personal accomplishment) and another that was labeled the "getting it done" model. Individuals fitting this model reported high exhaustion, high depersonalisation *and* high personal accomplishment. The only reported difference in the antecedents of the models was that the second model was associated with high conscientiousness while the first model was not. Likewise, Dreary et al (1996) found that among a large sample of consultant doctors, heavy workloads were positively associated with both exhaustion and with higher feelings of personal accomplishment.

It is also important to note that a sense of personal accomplishment (and related constructs such as feelings of competence) has been found to act as a buffer against exhaustion. For example, Jaaratne and Chess (1986) found that when combined with social support, high

personal accomplishment was a significant moderator between occupational stress and exhaustion for social workers. Likewise, Bhagat and Allie (1989) found that teachers' subjective feelings of professional competence buffered the effects of role stress on exhaustion. Although a sense of professional competence, sometimes called professional efficacy, is not exactly the same as accomplishment, research shows that they are highly correlated and professional efficacy may be the vehicle for acquiring a sense of personal accomplishment (e.g. Brouwers & Tomic, 2000). Indeed, Moore (2001) found that the stress associated with a hospital restructure significantly added to nurses' exhaustion levels without affecting their sense of accomplishment or professional efficacy. Other studies also support the idea that professional self-efficacy helps to prevent feelings of strain and emotional exhaustion (e.g. Mossholder, Bedeian & Armenakis, 1981; Schmitz, 2000).

In considering how the components of burnout might impact upon OCBs and vice versa, the following section briefly reviews an Australian study of teacher stress that may provide some support for the notion that employees can experience strain and still demonstrate OCB. Although the study did not explicitly measure teacher OCB, the findings do seem to imply that certain teacher OCBs had an effect on the teachers' exhaustion levels. The discussion that follows describes the proposed OCB-burnout model, and attempts to show (just as the key study implies) that strain may not necessarily have detrimental effects on all OCBs, particularly if variables in the environment help to sustain OCBs in the face of stress.

Rationale for the proposed model

Findings from Leonard, Bourke and Schofield (1999) may provide some support for the notion that stress does not always decrease employee OCB. The researchers examined occupational stress and performance in upper-primary school teachers at seven different New South Wales schools. They found that teachers who reported higher levels of strain at the time of, and in the ten months prior to the study, also had significantly better performance. Performance was measured by student satisfaction ratings of classroom variables including satisfaction with the teacher, social integration and learning opportunities. Students' negative affect was a control variable. The researchers interpreted this unexpected and counter-intuitive finding to mean that teachers who expended extra effort to provide engaging and meaningful learning experiences for their students also experienced more feelings of strain and exhaustion. They suggested that these teachers engaged in more behaviours which would appear to constitute (although were not defined as) OCB, such as spending time preparing fun classroom activities and acquiring new expertise that contributed to their work. Indeed, data from the "adventure" sub-scale of the student questionnaire (e.g. "I get a chance to do work that really interests me") accounted for the most variance in students' general satisfaction.

In addition, teachers in this study generally reported that the two most significant sources of stress were insufficient recognition and reward, and feelings of time pressures (presumably arising from perceptions of work overload). Although not explicitly tested in this study, it would seem reasonable to suggest that a lack of appreciation and acknowledgment for extra effort resulted in more frustration, resentment or fatigue for high OCB teachers because they perceived that their personal investments far outweighed organisational rewards. Nonetheless, the high stress teachers were also more likely to be highly satisfied with their relationships with students. This seems to imply that a sense of personal accomplishment was achieved when their efforts paid off in terms of students' reactions to their teaching.

Factors limiting the relevance of the Leonard et al (1999) findings to the proposed model include the fact that they did not use the MBI or similar instrument for measuring teacher strain or exhaustion. Instead, teachers were simply asked to rate the stressfulness of various work conditions. Thus it cannot be concluded that the high stress teachers were in

fact *exhausted*, although it seems logical to assume some sort of connection. Another limitation was that only 19 teachers returned useable data and apart from the stress measures, all other measures were cross-sectional meaning no conclusions about causality can be inferred. Nonetheless, their findings are somewhat consistent with certain empirical evidence mentioned earlier, and seem to suggest that certain types of intrinsic motivation and extra-role behaviours are somehow sustained despite significant strain-producing factors in the environment. Perhaps high OCB teachers are more stressed due to role overload and lack of recognition, but their OCBs (at least those directed towards their students) simultaneously provide a sense of personal accomplishment that prevents them from "burning out" altogether. That is to say, at least for some teachers, that OCB may act as a buffer against burnout via personal accomplishment. Consistent with this idea, some research evidence suggests that a perception of increased workload may not by itself be sufficient to significantly increase exhaustion (e.g. Dreary et al, 1996). In terms of recognition and reward, apparently no research exists that shows a link between lack of recognition and stress per se. However, studies have shown that the effects of stressful work conditions on exhaustion can be moderated by nonmaterial extrinsic rewards such as recognition and praise for good work (Hatfield, Huseman & Miles, 1987; Blegen, 1993; Gabris & Ihrke, 2001). Thus it seems plausible that a combination of perceived overload and little recognition might produce more exhaustion in high OCB employees, but not necessarily have a decremental effect on OCB if these behaviours provide sufficient intrinsic satisfaction.

In view of the Leonard et al (1999) study and other findings, it may also be true that if teachers high on OCBs receive positive feedback or recognition from others, the effects of workload perceptions on exhaustion may be reduced. Indeed, this is consistent with evidence that suggests the more praise teachers receive for their efforts, the higher their psychological well-being (Monfries and Hazel, 1995). It has also been shown that recognition for extra effort increases the likelihood that such behaviours will recur (Walsh & Tseng, 1998; Turnipseed & Murkison, 2000). Thus, for the purpose of the model being proposed, it is assumed that nonmaterial extrinsic rewards (i.e. psychological rewards such as praise, positive outsider feedback and recognition) will have a positive moderating effect not only on employee well being (operationalized as exhaustion), but also on employees' sense of personal accomplishment. That is, according to the proposed model both OCB and psychological rewards need to coexist to produce a positive effect on personal accomplishment and buffering effect on exhaustion.

The proposed model for explaining teacher stress and OCB

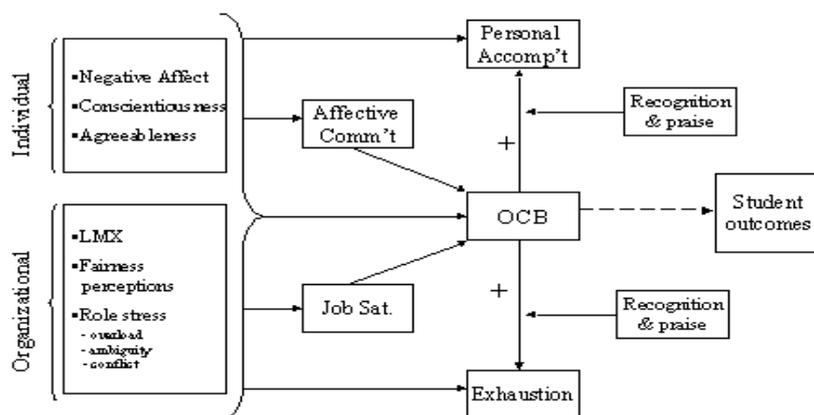


Figure 1 depicts the model being proposed to explain the relationship between OCB and burnout. The left hand-side of the model contains all those variables found to be common antecedents of both constructs (Podsakoff et al, 2000; Cordes & Dougherty, 1993). As already discussed, their effects on the two constructs is usually the opposite (i.e. positive vs. negative) except for agreeableness which has been shown to be positively linked with both OCB and burnout. Conscientiousness may also play an interesting role as it has been shown to contribute to both OCB and personal accomplishment with limited effects on exhaustion (Organ & Ryan, 1995; Piedmont, 1993). The model acknowledges that exhaustion and personal accomplishment are affected directly by the common antecedents of OCB as well as by OCB itself. It is also important to mention that although the antecedents may have causal, mediating and moderating effects with each other, it is not the explicit purpose of this model to explain the relationships amongst the antecedent variables. These antecedents are included in the model primarily because the dependent variables (namely, OCB, personal accomplishment and exhaustion) will likely share some variance associated with having common antecedents. Moreover, including these antecedents in the research design may also help determine which ones have the strongest effects on the dependent variables.

Figure 1. Proposed OCB-Burnout model

As the model shows, individual and organisation-related variables impact upon employee OCB directly and indirectly via job satisfaction and commitment. OCB in turn has implications for personal accomplishment and exhaustion, influencing both positively. However these relationships are both moderated by extrinsic nonmaterial rewards, namely praise and recognition, which may come from a variety of sources (principal, coworkers, students, parents, etc). For personal accomplishment, praise and recognition for one's work is expected to further heighten such feelings, whereas praise and recognition is expected to reduce, or at least prevent an increase in exhaustion levels. Thus according to this model, recognition and positive feedback will increase the likelihood that people will engage in or maintain citizenship behaviours, both because it increases personal accomplishment and because it reduces exhaustion. However, the important point is that within this model it is still possible to perform OCB *and* report feeling moderately exhausted as long as the OCB is supported by rewards and accompanied by some degree of accomplishment. Over time however, and without recognition, it is expected that some types of OCB will certainly suffer.

As shown by the dashed causal arrow, teacher OCB is also to have some effect on student outcome variables such as student satisfaction ratings and other attitudes about their teacher/classroom. In this way, the model may be useful for showing indirect links between school-level variables, teacher/classroom-level variables and student variables using multi-level analysis techniques.

Conceptualising and measuring OCBs in the teaching context

Although empirical evidence exists to support this model, there are two immediately apparent and potential problems. First the construct of teacher (or other helping professional) OCB needs to be carefully operationalised. OCB in teaching and other helping professions has largely been ignored; the OCB literature preferring to focus on employees in more commercial settings, rather than those who work in large bureaucratic systems and whose duties are often intensely interpersonal (such as teaching). This may be because OCBs are defined as helping behaviours, which makes it difficult to determine which

behaviours in the helping professions are "extra-role". As such, the construct of OCB in the teaching profession first needs to be clearly identified and unambiguously operationalised.

Second, not only is it important to categorise the various types of OCB but also to determine the level at which they are aimed (e.g. organisation, coworkers or students). This is mostly because OCB pitched at different levels may be motivated by different factors (Podsakoff et al, 2000). As several studies have shown, employees' perceptions of fairness and organisational justice may account for variance in OCB over and above job satisfaction and commitment (Schappe, 1998; Moorman, Niehoff & Organ, 1993). Because OCB is an 'input' that employees can use to compensate their employers for fair treatment or to resolve perceived inequities (Organ, 1993), workers may raise or lower their OCB as a function of their fairness perception. Thus, if the present model was tested in the helping professions, we might expect such things as organisational injustice to negatively affect OCBs directed towards the *organisation*, however OCBs directed towards service *recipients* (students, patients etc) may be less affected. Without empirical testing it is difficult to know what systematic effects organisational injustice and other work stressors would have on OCB directed towards one's *coworkers*.

The following section briefly describes a study currently underway in Queensland primary schools to test the proposed model. An early part of this research involved a pilot study to develop and evaluate items to measure teacher OCB. Preliminary results from an exploratory factor analysis of these OCB items are discussed, followed by a brief description of other proposed analyses and future directions for the study.

Methodology

The main method of data collection being employed in the current study is by way of survey questionnaires. Authorisation for the study was obtained from Education Queensland and permission to post the teacher surveys was sought from individual school principals. Five hundred Grades 4-7 teachers from 75 schools around Brisbane received a survey. Upper primary school teachers only were targeted so that as part of a later study, the researchers could obtain student data in order to link it with the individual teacher data (as suggested by the proposed research model). Grades 4-7 teachers were the target group for this study, as the student surveys require a reading age of about eight.

In developing the teacher questionnaire, existing measures for each of the variables in the proposed model were located throughout the literature and, with the exception of OCB, used to investigate commitment, role stress, fairness perceptions and so on. Although there are many existing measures for OCB, none were deemed comprehensive or relevant enough to employ with the present sample. Indeed, only one study was located that investigated OCB in schoolteachers and several of the items used in that study, such as attending student birthday parties, were considered inappropriate in the context of metropolitan Australian culture (Somech & Drach-Zahavy, 2000). Therefore a pilot study was undertaken to develop a systematic measure for teacher OCB. This involved a review and adaptation of existing measures followed by an evaluation of the proposed items by current and former primary school teachers.

Pilot study: Developing a measure of teacher OCB

In designing the OCB items, eleven teachers from three schools and two university lecturers with a background in school teaching took part in focus group discussions to review the proposed OCB items developed from a review of the literature. Participants were given a

draft survey containing 30 items and asked to indicate whether or not the behaviour described *exceeded the basic requirements of their job*. They were also asked to consider whether or not some form of *punitive or corrective response* would result if they as teachers did *not* perform the behaviour described. Examples of items originally included in the focus group survey, but later discarded, were:

1. ...*decorates the classroom*
2. ...*expresses opinions on important issues honestly, even if others may disagree*
3. ...*takes unnecessary or prolonged breaks (reversed)*
4. ...*finds fault with what other teachers are doing (reversed)*

Participants in the focus groups did not consistently agree on such items. Furthermore, all reversed items were excluded from the final questionnaire, as they seemed to create confusion for focus group participants and were not uniformly deemed to constitute OCB. Additionally, focus group participants suggested other forms of behaviour that might represent OCB. Of these new ideas, two were consistently agreed upon and included in the final questionnaire. These items were "*puts effort into assisting students with severe learning or behavioural difficulties*" and "*actively encourages quieter or less able students to participate*".

Items that received endorsement from at least 8 of the 11 teachers were included in the final set of questions. The final set of 24 items was also rechecked against items used in published studies to ensure their relevance and that items covered a variety of OCB categories. As already mentioned, the literature categorizes OCBs in a variety of ways and various taxonomies for conceptualising different types of OCBs have been proposed and debated. There are some fairly standard categorisations including *civic virtue, compliance, conscientiousness, courtesy* and *altruism* (Podsakoff et al., 2000). Additionally, a distinction has been made between OCBs directed towards *individuals* versus OCBs directed towards the *organisation* as a whole. In a study conducted by Somech & Drach-Zahavy (2000) teachers' extra role behaviours were classed according to whether or not they aimed to benefit students, other teachers, or the school community. In keeping with this taxonomy, a three-factor model was hypothesised, which anticipated that teacher OCBs would fall into three categories:

1. OCBs directed at the level of the student
2. OCBs directed at the level of coworkers
3. OCBs directed at the level of the school as an organisation

In addition, it was noted that within these three categories various types of OCBs would exist. With this in mind, OCBs within the first two categories were classed as being either *task-focussed* or *person-focussed*. Settoon & Mossholder (2002) make this distinction between OCBs that are aimed at the level of the individual but which either a) serve to enhance empathic concern and trust (*person-focussed*) or b) reflect work interaction patterns and align with specific tasks or roles that define work relationships (*task-focussed*). Settoon & Mossholder suggest that this distinction is one way of reducing the conceptual overlap between different types of OCBs and of overcoming the lack of theoretical underpinning common in previous studies. All OCBs directed at the third level (i.e. the school level) are predominantly task-focussed, however are potentially able to be categorised according to traditional OCB categories such as *civic virtue* (defined as taking an interest in the life of an organisation) and *conscientiousness* (Podsakoff et al., 2000). Table 1 shows the 24 items actually used in this study and the various categories that they were hypothesised to represent.

Table 1

Hypothesised categories of teacher OCBs

Items	Category
Towards Students	
<i>As a teacher at this school I...</i>	
Stay in at lunch time to help or listen to students	Person-focussed
Assist students outside of official school hours	Person-focussed
Actively encourage quieter or less able students to contribute ideas to classroom activities	Person-focussed
Help out students with severe learning or behavioural difficulties	Person-focussed
Spend time reflecting on my teaching at the end of the day	Task focussed
Put effort into planning a variety of interesting and interactive learning activities	Task focussed
Arrive at work earlier than required to prepare for lessons	Task focussed
Spend my free time at nights and/or on weekends planning student learning experiences	Task focussed
Towards Coworkers	
<i>As a teacher at this school I...</i>	
Take time to listen to coworkers' ideas, problems or concerns	Person-focussed
Check on coworkers who I know have been upset or struggling with a problem	Person-focussed
Take steps to get along with coworkers even in the most trying situations	Person-focussed
Take care not to interrupt colleagues at inconvenient times	Person-focussed

Assist new or visiting teachers even when not required to	Task-focussed
Take on extra responsibilities in order to assist other teachers with heavy workloads	Task focussed
Consult or collaborate with colleagues in planning student learning experiences	Task focussed
Offer to lend my resources, property or equipment to colleagues	Task focussed
Towards the School	Category
<i>As a teacher at this school I...</i> Volunteer for tasks and roles that, although they support the school, are not mandatory	Civic virtue
Organise activities which involve parents and/or the local community	Civic virtue
Attend school-related functions or events even when not required to	Civic virtue
Acquire knowledge and skills in new areas that contribute to my work	Civic virtue
Read and refer to important school & departmental documents	Conscientiousness
Take care to conserve school supplies and look after school equipment	Conscientiousness
Keep up with departmental or educational reforms and developments	Conscientiousness
Conscientiously follow school or departmental regulations and procedures	Conscientiousness

Results of the factor analysis

In order to perform a factor analysis on a newly developed instrument, it is desirable to have at least 10 cases per item (i.e., 240 for current purposes). However, at the time of writing only 192 surveys had been received from the 500 sent out (38% response rate). As such, it is the intention of researchers to perform the analysis again once more data has been collected. Nonetheless, a preliminary investigation of the existing data was conducted and responses to the items assessing all of the OCB items were subjected to an exploratory factor analysis using principal axis factoring and an orthogonal (varimax) rotation (N = 192). The number of factors retained was determined by the number of eigenvalues greater than one. On this basis, five factors were extracted, which accounted for 46% of the variance. Four items with loadings less than .3 were excluded. Table 2 shows the loadings for each item within the five factors.

Table 2

Results of exploratory factor analysis of OCB items

Item	Factor				
	1	2	3	4	5
Assist new or visiting teachers	.74				
Take time to listen to coworkers	.72				
Check on coworkers who are upset or struggling with a problem	.70				
Offer to lend resources or property	.54				
Assist teachers with heavy workload	.52				
Collaborate with colleagues in planning	.49				
Conserve school supplies and equipment		.67			
Follow school procedures and regulations		.65			
Take care not to interrupt colleagues at inconvenient times		.60			
Attempt to get along with coworkers, even in most trying situations		.50			
Keep up with educational reforms and developments			.86		
Acquire new skills and knowledge that contribute to my work			.61		
Read and refer to school documents			.41		
Spend time planning challenging and interactive				.64	

lessons and activities					
Spend time on weekends or at night planning lessons				.64	
Stay back at lunch to assist students				.36	
Arrive at work earlier than required to prepare for lessons				.31	
Attend noncompulsory meetings and events that support the school					.65
Volunteer for tasks and roles that are not mandatory					.64
Organise activities that involve parents or the local community					.49

Interpreting the five factors

The first dimension of contributions seems to refer to a set of behaviours aimed at helping coworkers. They relate to both task- and person-focussed OCBs such as lending personal property and taking time to listen to the concerns of coworkers. It is less clear how and why the OCB items in the second dimension fit together. This factor contains both task- and person-focussed items as well as coworker and school level items, however all items appear relate to courtesy and conscientiousness. This dimension includes looking after school resources, following procedures and showing consideration towards coworkers. The third dimension relates to a sense of professionalism such as engaging in professional development activities and utilizing official school documents. The fourth dimension of items refer to student-centered and learning-centered OCBs, such as planning interesting lessons and assisting students outside normal classroom hours. The fifth dimension relates to a concern about the life of the school and includes such behaviours as attending school-related events and optional work-related meetings. Indeed three of the four items that were predicted to constitute 'civic virtue' make up this fifth factor

Although the results of the factor analysis did not support the hypothesised 3-factor model of OCB (i.e. student, coworker and school levels), a *student-related* factor and a *coworker-related* factor did emerge. Additionally, each factor contained both task- and person-related behaviours and as such no clear distinction between task- and person-focussed OCBs emerged. Although previous studies have demonstrated a distinction between these two types of individually oriented OCBs, the lack of distinction between task- and person-focussed OCBs in teachers' work may be due to the highly interpersonal nature of their job. Previous studies showing support for this distinction have researched occupations in areas such as administration, where the difference between work task demands and building strong emotional ties may be more distinct (Settoon & Mossholder, 2002). Despite the lack of support for some of the hypothesised categories, the factor analysis revealed that teacher OCBs do differ according to their type and level. It is hoped that the results of this pilot study will be used in future studies to modify and improve the measurement of teacher OCB.

Future directions

The current study is continuing in 2003 and it is hoped that approximately 400 teacher surveys will be collected and that student data will be obtained from between 150 and 200 classrooms. Data has already been collected from students in over 80 classrooms, all of which were students of teachers who returned their surveys in 2002 indicating a willingness to take part in the student survey research. Student data will be analysed and correlated with teacher data to investigate any effects exerted by teachers' OCB and burnout levels on students' perceptions of school.

Once all the data has been collected, the complete data set will be subjected to structural equation modeling and other statistical analyses in order to thoroughly test each relationship predicted by the OCB-Burnout model proposed earlier. Longitudinal data will also be collected from participating teachers to assess changes over time in the effects of burnout on OCB and vice versa. Longitudinal data collection has been facilitated by the use of a unique code identifier (provided by the teachers themselves) on each of the teacher surveys.

It is hoped that testing this model in a school context will help to increase our understanding of how various work conditions, especially those in the teaching and other helping professions, influence psychological well being and distress and in turn, affect an employee's willingness to perform OCB. As a result, we may be better equipped to suggest specific actions that education institutions and other organisations can take to ensure employee citizenship behaviours are performed for the benefit of both the organisation and employees alike.

In closing, it is generally agreed that OCB in the aggregate promotes the efficient and effective functioning of an organisation, lubricates the social machinery of the workplace and provides the flexibility needed to work through many unforeseen contingencies. Burnout on the other hand has negative effects for employees in terms of well being and satisfaction, and for employers in terms of performance and turnover. This paper has proposed a new model for investigating the possible effects of stress on OCB and described the development and analysis of a new measure for examining teachers' OCB. The analysis of this new measure revealed five factors or types of teacher OCB. Whether or not these different types of OCB affect, or are affected by, psychological burnout remains to be seen. This hypothesis will be tested in mid-2003 once data collection is complete.

References

Allen, J. & Meyer, N. (1996). Affective, continuance and normative commitment to the organization: An examination of construct validity. *Journal of Vocational Behaviour*, 49, 252-276.

Berg, B. (1994). Educator burnout revisited: Voices from the staffroom. *Clearing House*, 67(4), 185-189.

Bhagat, R. & Allie, S. (1989). Organizational stress, personal life stress and symptoms of life strain: An examination of the moderating role of a sense of competence. *Journal of Vocational Behaviour*, 35, 231-253.

Blegen, M. (1993). Nurses' job satisfaction: A meta-analysis of related variables. *Nursing Research*, 32(1), 36-41.

- Brouwers, A. & Tomie, W. (2000). A longitudinal study of teacher burnout and perceived self-efficacy in classroom management. *Teaching and Teacher Education*, 239-253.
- Cohen, S. (1980). After effects of stress on human performance and social behaviours: A review of history and theory. *Psychological Bulletin*, 88, 82-108.
- Cordes, C. & Dougherty, T. (1993). A review and an integration of research on job burnout, *Academy of Management Review*, 18, 621-656.
- Dreary, H., Blenkin, H., Agius, R., Endler, N., Zealley, H. & Wood, R. (1996). Models of job-related stress and personal achievement among consultant doctors. *British Journal of Psychology*, 87(1), 3-30.
- Gabris, G. & Ihrke, D. (2001). Does performance appraisal contribute to heightened levels of employee burnout? The results of one study. *Public Personnel Management*, 30(2), 157-172.
- Ganster, D. & Schaubroeck, J. (1991). Work stress and employee health. *Journal of Management*, 17, 235-271.
- Hatfield, J., Huseman, R. & Miles, E. (1987). Perceptual differences in verbal recognition and job satisfaction. *Communication Research Reports*, 4(1), 8-13.
- Jaaratne, S. & Chess, W. (1986). Job stress, job deficits, emotional support and competence: Their relationship to burnout. *Journal of Applied Social Sciences*, 10(2), 135-155.
- Kahn, R. (1978). Job burnout: Prevention and remedies. *Public Welfare*, 36, 61-63.
- Katz, D. (1964). Motivational basis of organizational behavior. *Behavioral Science*, 9, 131-146.
- Krebs, D. (1970). Altruism - an examination of the concept and a review of the literature. *Psychological Bulletin*, 73, 258-302.
- Leonard, C., Bourke S. & Schofield, N. (1999). Student stress and absenteeism in primary schools. *Proceedings from the Australian Association for Research in Education (AARE) conference*, Melbourne.
- Maslach, C. (1976). Burned-out. *Human Behaviour*, 5(9), 16-22.
- Maslach, C. (1982). *Burnout: The cost of caring*. Englewood Cliffs, NJ: Prentice-Hall.
- Maslach, C. & Jackson, S. (1986). *The Maslach Burnout Inventory*. Palo Alto, CA: Consulting Psychologists Press.
- Monfries, M & Hazel, G. (1995). Teacher stress: Cognitive implications for teacher burnout. *Proceedings from the Australian Association for Research in Education (AARE) conference*, Hobart.
- Moore, K. (2001). Hospital restructuring: Impact on nurses mediated by social support and a perception of challenge. *Journal of Health and Human Services Administration*, 23(4),

Moorman, R. (1991). Relationship between organizational justice and organizational citizenship behaviors: Do fairness perceptions influence employee citizenship? *Journal of Applied Psychology*, 76: 845-855.

Moorman, R., Niehoff, B. & Organ, D. (1993). Treating employees fairly and organizational citizenship behavior: Sorting the effects of job satisfaction, organizational commitment, and procedural justice. *Employee Responsibilities and Rights Journal*, 6(3), 209-225.

Mossholder, K., Bedeian, A. & Armenakis, A. (1981). Role perceptions, satisfaction, and performance: Moderating effects of self-esteem and organizational level. *Organizational Behaviour and Human Decision Processes*, 28(2), 224-234.

Motowildo, S., Packard, J. & Manning, M. (1986). Occupational stress: its causes and consequences for job performance. *Journal of Applied Psychology*, 71, 618-629.

Organ, D. (1988). *Organizational citizenship behavior: The good soldier syndrome*. Lexington, MA: Lexington Books.

Organ, D. (1997). Organizational citizenship behaviour: It's construct clean-up time. *Human Performance*, 10, 85-97.

Organ, D. & Ryan, K. (1995). A meta-analytic review of attitudinal and dispositional predictors of organizational citizenship behaviors, *Personnel Psychology*, 48, 775-802.

Piedmont, R. (1993). A longitudinal analysis of burnout in the health care setting: The role of personal dispositions. *Journal of Personality Assessment*, 61(3), 457-473.

Posdakoff, P., MacKenzie, S., Paine, B. and Bachrach, D. (2000). Organizational citizenship behavior: A critical review of the theoretical and empirical literature and suggestions for future research. *Journal of Management*, 26 (3), 513-563.

Schappe, S. (1998). The influence of job satisfaction, organizational commitment and fairness perceptions on organizational citizenship behavior. *Journal of Psychology*, 132(3), 227-290.

Schmitz, G. (2000). Can perceived self-efficacy protect against burnout? A longitudinal study in ten German states. *Psychologie in Erziehung und Unterricht*, 48(1), 49-67.

Schwanz, J. (1996). *A model of role conflict, role ambiguity, and personality factors in relation to burnout in the Christian ministry*. Unpublished doctoral thesis, Portland State University, Oregon.

Tang, T., Hamid, A. & Ibrahim, S. (1998). Antecedents of organizational citizenship behaviour revisited: Public personnel in the United States and in the Middle East. *Public Personnel Management*, 27(4), 529-550.

Tepper, B. (2001). Health consequences of organizational injustice: Test of main and interactive effects. *Organizational Behaviour and Human Decision Processes*, 86(2), 197-215.

Turnipseed, D. & Murkison, G. (2000). Good soldiers and their syndrome: Organizational citizenship behaviour and the work environment. *North American Journal of Psychology*, 2(2), 281-302.

Van Dyne, L., Cummings, L. & Parks, J. (1995). Extra-role behaviors: In pursuit of construct and definitional clarity (Or a bridge over muddied waters). In L. Cummings & B. Staw (Eds.) *Research in Organizational Behavior* (Vol 17), 215-285. Greenwich, CT: JAI Press.

Walsh, J. & Tseng, S. (1998). The effects of job characteristics on active effort at work. *Work and Occupations*, 25(1), 74-96.

Williams, L. & Anderson, S. (1991). Job satisfaction and organizational commitment as predictors of organizational citizenship and in-role behaviors. *Journal of Management*, 17, 601-617.