
Pressure points: school executive and educational change

Steve Dinham & Catherine Scott

University of New England, Australia

Abstract

Recent international research has demonstrated a relationship between physical health and occupational status/level of appointment: people who hold higher level positions enjoy better physical health on average than those in lower positions. Researchers have speculated that this may be in part due to the lower levels of control exercised over pace and timetabling of work by those occupying lower positions. Poorer physical health is thus mediated by lower levels of mental wellbeing.

Worldwide, many working in school education have experienced 'control' being taken away from them by rapid and constant educational change imposed from 'the outside'. The pace and extent of change has varied across nations, and it can be predicted that its effects will also vary according to its intensity.

The research reported here was conducted in four countries - Australia, New Zealand, England and the United States of America - and employed a sample of more than 2600 teachers and school executives at over 360 primary and secondary schools.

Context - in this case, country - was found to be the most powerful predictor of overall career satisfaction, change in satisfaction and mental health, as measured by the General Health Questionnaire. This result is discussed in the light of levels of educational change experienced at each of the four sites.

The level of position an individual held and type of school they worked in were found to be related to his/her satisfaction and mental wellbeing in some contexts, but not others. In this paper, we explore the reasons for these relationships, using insights gained from the general research on occupational status and health.

Background to the International Teacher 2000 Project

Public interest and involvement in education in many countries has been intensifying for several decades. If ever there was an 'ivory tower' of education, it has certainly begun to crumble as various pressure groups and stakeholders have attempted to shape and 'measure' what happens in schools, particularly state schools.

Like all change, educational change has produced intended and unintended consequences. Some of the new expectations and responsibilities placed on schools and some of the imposed changes have been reasonable and even overdue, while others have been intrusive and potentially damaging.

The International Teacher 2000 Project sought to address the issue of how, in the context of rapid and continuing educational change, teachers and school executives in several countries feel about their work. Participants were asked a number of key questions:

1. Why do teachers enter teaching?
2. How do teachers feel about teaching?
3. How do teachers feel they are regarded by their employer and society generally?
4. What aspects of their role do teachers find satisfying?
5. What do teachers find dissatisfying?
6. Are satisfaction levels changing?
7. Is teacher pre-service and in-service training adequate to meet the needs of the teachers of today and tomorrow?
8. How are teachers coping with change and the pressures being placed upon them?

The International Teacher 2000 Project was undertaken because of a desire to answer the above questions and to benchmark teacher and executive satisfaction and mental health levels, so that more informed decision making could occur. The project was designed to extend and test the findings of previous interview-based research regarding teacher resignation (Dinham 1992); the impact of teaching on teachers and their partners (Dinham 1997); and the manifestations and implications of the ageing teacher population (Dinham 1996).

The initial Australian phase of the project involved teachers and school executives at government schools in Western Sydney, and was completed in 1997 (Dinham & Scott 1996a; 1996b; 1997; 1998b). As a result of interest in this

work and the desire to obtain comparative data, replications were launched in 1997 in England (Nottingham Trent University) and New Zealand (Massey University), while another replication began in 1998 in the United States of America (USA) (through Rowan University, New Jersey). Further replications are taking place in Malta, Canada and a number of other countries.

Position held and health

Recent international research has demonstrated a relationship between physical health and occupational status/level of appointment: persons who hold higher level positions in organisations enjoy better physical health on average than those in lower positions. Researchers have speculated that this may be in part due to the fact that individuals occupying lower positions have less control over the pace and allocation of their work than those occupying higher positions in the workplace (see Marmot & Theorell 1988; Marmot & Feeney 1996; Marmot et al 1997). Poorer physical health is thus mediated by lower levels of mental well being.

Internationally, many of those working in school education have experienced 'control' being taken from them by rapid and constant educational change imposed from 'the outside' and 'above', as education has become increasingly politicised and open to external scrutiny and involvement by various stakeholders. The pace and extent of this change has varied across nations and it can be predicted that its effects will also vary according to its intensity and scope.

In this paper, we explore the differences in overall occupational satisfaction and mental stress, and changes in satisfaction over time, for those occupying different promotion positions in different schools. As the effects of educational change vary not only across different positions but in different contexts, variations between countries are also explored using the four samples from Australia, New Zealand, England and the US. The relationship between satisfaction with school leadership and overall satisfaction is also briefly explored, of interest because it can be predicted that a 'trickle down effect' exists, by which school leaders who are themselves not 'doing well' may find it more difficult to provide effective leadership.

Method

Instrument

The instruments used in the study were parallel versions of a machine readable self-report questionnaire. Minor changes were made to the original Australian version, to make wording of items consistent with terminology employed in the English, New Zealand and US contexts. A detailed description of methodology may be found elsewhere (Dinham & Scott 1996b; 1998a). The instrument contained the following demographic items:

- seven 'orientation to teaching' and two 'preparedness to teach' items (true/false);
- 75 'satisfaction/dissatisfaction with teaching' items (seven-point Likert scales);
- two Likert scale items (with seven points each) to measure overall satisfaction and change in satisfaction since beginning teaching;
- the Commitments scale (40-item version - Novacek & Lazarus 1990);
- the 12-item form of the General Health Questionnaire (GHQ), used as a measure of mental distress/stress; and
- several opportunities for individuals to make open-ended comments.

The 75 satisfaction items were used to calculate ten scales in the Australian, English and New Zealand cases; and 16 scales in the US cases, which measured satisfaction with aspects of teaching and their contexts. The development of the scales is described elsewhere (Dinham & Scott 1999b; 2000).

Data from completed surveys were computer scanned and analysed using SPSS, while open-ended responses were subject to content analysis using NUDIST (Qualitative Solutions and Research Pty Ltd 1994).

Participants

Sampling

Separate teams undertook the project in each country,¹ and sampling methods employed by the four teams were varied to suit each local context. Below is a brief description of the sampling methods employed. A more detailed description may be found in previous publications (eg Dinham & Scott 1999).

Australia

The Australian sample was obtained from among teachers and school executives in the Metropolitan West Region, formerly one of the largest of the 10 regions in the public school system of the New South Wales Department of School Education (DSE), which employs over 50 000 teachers in total.²

Western Sydney was chosen because it was accessible and because of its heterogeneity. An invitation to participate was made to the principals of over one

third of government schools in the region, ensuring a representative sample of schools.

Overall, 47 of the region's 185 primary schools, 19 of 54 secondary schools, and five of the region's 16 Schools for Specific Purposes took part, with 2336 surveys distributed to the 71 schools.

England

Schools were selected by taking every fifth school appearing in the lists of eight local education authorities. In all, 661 schools were approached and 114 head teachers (principals) consented to participate. A total of 2384 questionnaires were posted to participating schools.

New Zealand

A stratified, random cluster sample was drawn, with the objective of obtaining at least 300 primary and at least 300 secondary teachers. Sampling frames were lists of all state and integrated primary schools (including intermediate schools), and all state and integrated secondary schools in the southern half of the North Island of New Zealand.

USA

US data were collected from public schools in the state of New Jersey. New Jersey was chosen because it has 609 school districts (more than any other state), yet it is one of the smallest states. It also contains a wide range of schools and, whilst many school districts appear to be suburban-like, these experience many of the problems of inner-city school districts. There are also many 'one building' school districts, with as few as 100 students in the entire district.

The study was designed as a systematic random sample, stratified by country and weighted according to gender. In all, individuals from 117 public schools were included in the sample.

Sample description

Australia

Of the 2336 surveys distributed to 71 schools, there were 892 respondents (38%); 65% of whom were women and 35% men.³ For comparative purposes, in 1989, 61% of the Australian teaching force was female and 39% was male (Logan et al 1990, p 1). The mean age of respondents was 40 years (women = 39, men = 42), with a range of 20 to 66.

Of the women respondents, 56% were trained for primary teaching and 44% for high school, while 32% of the men were trained for primary and 68% for high school. The mean length of service as a teacher was 15 years (range: <1-

37 years), and mean length of time in the school they were currently employed at was six years (range: <1-31 years).

Table I compares the figures from each country for age, length of service and time in the current school (NZ = New Zealand); and Table II compares the percentage of participants teaching in each type of school, by country.

Table I: Mean age, length of service and time in current school (in years)

	Age	Length of service	Time in current school
Australia	40	15	6
England	42	16	6
NZ	42	15	7
US	45	18	13

Table II: Percentage of participants teaching in each type of school

	Primary*	Middle	Secondary	Other
Australia	48	N/A	52	N/A
England	40	2	54	5
NZ	53	8	37	2
US	22	16	43	N/A

* Includes nursery schools

Including the position of advanced skills teacher (AST)⁴, 44% of the women and 55% of the men were in promotions positions (48% of the total sample). Table III contains the figures for participants in the category of promotion position, by country.

Table III: Number of participants in different promotion positions

	Principal	Deputy	Middle exec	AST*	Classroom
AustPrim	34	16	70	82	128
AustSec	13	10	75	78	198
EngPrim	49	29	12	66	79
EngSec	9	11	119	70	99
NZPrim	35	36	47	N/A	160
NZSec	5	15	89	N/A	83

USPrim	39	6	0	4	198
USSec	30	16	41	9	245

(AustPrim = Australian primary schools; AustSec = Australian secondary schools)

Or equivalent position*

England

Of the 2384 surveys distributed to 114 schools, 609 were returned (26%).⁵ The mean age of participants was 42 years (range: 22-62 years). The mean length of service was 16 years (range: <1-41 years), and the mean length of time in the current school was six years (range: <1-29 years). Only 4% of the sample reported having a first language other than English.

In total, 70% of participants were women and 30% were men. Forty percent (24% of men, 47% of women) taught in the infants-primary range; 2% in middle schools; 54% in secondary schools (69% of men and 48% of women teachers); and 5% in schools classed as 'other' - chiefly special schools.

Eleven percent of participants in the English study were head teachers (13% of men and 9% of women); 7% were deputy heads (8% of men and 7% of women); and 23% were heads of faculties, years or departments (32% of men, 19% of women).

A further 25% described themselves as classroom teachers with extra responsibilities and salary (22% of men and 26% of women); 30% as classroom teachers (23% of men and 33% of women); only 1% as supply teachers (0% of men and 1% of women); and 4% (3% of men and 4% of women) described themselves as 'other' (specialists of various sorts, including librarians).

New Zealand

A total of 1002 surveys were distributed to 71 schools, with 565 returned (56%). The mean age of New Zealand participants was 42 years (range: 21-66 years); the mean length of service was 15 years (range: <1-45 years); and the average length of service in their current school was seven years (range: <1-35 years). Six percent reported having a first language other than English.

Of the 565 participants, 71% were women and 29% were men. Eighteen percent of the men and 4% of the women were school principals (total = 8%); 9% of the men and 10% of the women were deputies (total = 10%); whilst 30% of the men and 23% of the women described themselves as senior teachers or heads of departments (total = 25%).

Thirty-seven percent of the men and 47% of the women were classroom teachers (total = 44%), whilst 5% of the sample described themselves as

relieving teachers (men = 2%, women = 6%) and 9% as 'other' (men = 4%, women = 11%).

Primary school teachers accounted for 53% of the sample (men = 32%, women = 62%); teachers in intermediate schools - 8% (men = 7%, women = 8%); secondary teachers - 37% (men = 58%, women = 29%); and 2% taught in mixed schools (men 3%, women = 2%).

USA

There were 1056 surveys distributed and 668 returned (63%). A check of selected demographics (gender, age, length of service, and academic qualifications) suggested that the respondents did not differ from the population in a systematic way.

Of the 668 respondents, 66% were women and 34% were men. The mean age of respondents was 45 years (women = 44, men = 46). The mean length of tenure in their current school was 13 years (women = 12, men = 15) and mean length of time in the teaching service was 18 years (women = 17, men = 22).

Twenty-two percent of respondents were primary teachers (women = 46%, men = 30%); 16% taught in middle schools/junior high schools (women = 16%, men = 14%); and 43% in high schools (women 37%, men = 53%).

Fourteen percent of the women and 39% of the men were in promotion positions, with 41% of the total sample holding some promotion position. The great majority (98%) were born in the US and 98% were also from an English speaking background.

Results

A series of three-way ANOVAs were performed to test the association between position, school type, country, GHQ scores, overall ratings of satisfaction and change in satisfaction.

General Health Questionnaire (GHQ)

Results from the ANOVA indicated that the relationship between country and GHQ was significant ($F_{3,2278} = 53.558, p = .00$), as was the main effect of position ($F_{4,2278} = 3.591, p = .006$). The main effect of school type was not significant. Interaction effects could not be calculated because not all promotion positions exist in the country systems or in some subsections of the systems. Inspection of means, however, suggested that an effect might be present and further analyses were warranted. Subsequently, further analyses (ANOVA) were performed separately on the data for each country. Table IV contains the mean GHQ scores for promotion position by school type and country.

Table IV: Mean GHQ score by type of school and promotion position

	Principal	Deputy	Middle Exec	AST	Classroom
AustPrim	1.92	1.98	2.12	2.14	2.11
AustSec	2.02	1.88	2.16	2.19	2.10
EngPrim	2.23	2.09	1.99	2.19	2.21
EngSec	2.13	2.23	2.21	2.14	2.17
NZPrim	2.05	2.08	2.01		2.16
NZSec	1.83	1.92	2.12		2.14
USPrim	1.83	1.62		1.52	1.87
USSec	1.67	1.70	1.80	2.01	1.87

Analysis of the Australian and US data left the interpretation of the original analyses unchanged – the position held predicted an individual's GHQ score, but the type of school at which he/she taught did not. However, in England and New Zealand, neither position nor school type predicted the GHQ of an individual.

In Australia, holders of higher promotion positions reported better levels of mental health than those from lower rungs of the promotion ladder, with ASTs faring particularly poorly. In the US, higher level positions had higher levels of mental health on average, although some interaction with school type was indicated; again, it was not possible to directly explore this. In New Zealand, school executives and their staff were faring as well as each other in terms of mental health; and in England - as poorly.

Overall satisfaction

Results for the three-way ANOVA of the self-rated satisfaction data were similar to those for the GHQ. Once again, no interaction term could be calculated. The main effects of country ($F_{3,2291} = 55.80, p = .00$) and type of school ($F_{1,2291} = 6.83, p = .009$) were significant, as was the position an individual held ($F_{4,2291} = 5.99, p = .00$). Table V contains the mean overall satisfaction scores for promotion position by school type and country.

Table V: Mean overall satisfaction score by type of school and promotion position

	Principal	Deputy	Middle Exec	AST	Classroom
AustPrim	4.83	4.19	4.19	3.82	4.24
AustSec	5.00	4.80	3.99	3.54	3.79

EngPrim	4.10	4.50	4.08	3.68	3.89
EngSec	5.13	4.00	3.70	3.91	3.69
NZPrim	4.42	4.86	4.57		4.22
NZSec	5.40	3.94	3.80		3.99
USPrim	5.18	6.33		4.00	5.10
USSec	5.88	3.08	5.12	3.57	5.20

Once again, interaction effects were indicated by the results of an inspection of means, leading to further analyses (ANOVAs). The Australian results revealed that position was significantly associated with overall satisfaction, as was school type ($F_{1,701} = 4.879$, $p = .028$). In England, neither position nor school type predicted satisfaction; while in New Zealand, position did not predict satisfaction but school type did ($F_{1,464} = 7.409$, $p = .007$). Position was found to predict overall satisfaction in the US ($F_{4,573} = 4.49$, $p = .001$), but not school type.

Australian primary teachers and holders of higher promotion positions were, on average, more satisfied than their colleagues. All teachers were equally dissatisfied in England, whilst New Zealand primary teachers were more satisfied than their secondary colleagues. Once again, the US results suggested an interaction effect between position and type, with such a widespread distribution of figures for satisfaction levels of different positions, it was not possible to determine any relationships. However, given the presence of some extremely small cell sizes in the American data, interpretation of this result should probably be approached with caution.

Change in satisfaction

In the results for self-rated change in satisfaction since beginning teaching, once again, the main effect of country was significant ($F_{3,2289} = 64.937$, $p = .00$), as was position ($F_{4,2289} = 2.895$, $p = .021$). The type of school an individual taught at was not significant, and again, while no interaction between school type and position could be calculated, interactions could be suggested.

Further analyses (ANOVAs) revealed that position predicted the change of satisfaction of teachers in Australia, but type of school did not. Neither was predictive in England or the US, while in New Zealand, the type of school an individual taught at was a marginally significant predictor ($F_{1,461} = 4.039$, $p = .045$), but position was not. Table VI contains the mean change in satisfaction scores for promotion position by school type and country.

Table VI: Mean change in satisfaction by type of school and promotion position

	Principal	Deputy	Middle Exec	AST	Classroom
AustPrim	3.66	3.31	2.99	3.01	3.62
AustSec	4.08	3.60	3.29	3.06	3.31
EngPrim	3.52	3.32	3.17	2.85	3.24
EngSec	3.63	3.10	3.18	3.11	3.38
NZPrim	3.78	3.81	4.11		3.69
NZSec	4.40	3.38	3.13		3.65
USPrim	4.28	5.40		6.25	4.51
USSec	4.83	4.00	5.00	4.29	4.80

Again, Australian holders of higher promotion positions had experienced less decline in satisfaction than other teachers, particularly ASTs. This was also true of New Zealand primary teachers when compared to their secondary counterparts.

School leadership and overall satisfaction

As mentioned briefly in the method section, scales were calculated to measure satisfaction levels with aspects of teaching and the teaching context. Using a series of stepwise, multiple regressions, we report here a 'rough and ready' statistical test of the relationship between aspects of satisfaction, and overall self-rated satisfaction and changed satisfaction since commencing teaching. Of interest in this paper is the relationship between overall satisfaction and the scores on the 'satisfaction with school leadership' scale. Table VII contains the results of the analysis.

Table VII: Work aspects significantly associated with overall satisfaction*

	Australia	NZ	England
	Beta	Beta	Beta
Workload	.23	.29	.35
Student achievement	.21		.13
School leadership	.16	.13	.13
School reputation	.15		.11
Professional growth	.09	.09	
Status	.09		.11

Promotion	.07		
Change		.11	
R Sq	.32	.34	.35

*The US has been excluded as the 'Aspects of satisfaction' scales differ from those for the other countries

Discussion

When does 'satisfied' mean 'less dissatisfied'?

Before exploring the results of the research in more detail, it is worth considering whether the levels of satisfaction reported by teachers and school executives indicate more or less satisfaction or more or less dissatisfaction. In his paper on the 'gold standard' for subjective well being, Cummins (1995) reported remarkable consistency in results of studies undertaken to explore self-ratings of satisfaction. Cummins maintains that the population standard for satisfaction ratings is 75% of the maximum score of the scale. Scores lower than this actually represent lower than expected levels of satisfaction. In the specific contexts of the research we report here, the expected mean rating of satisfaction would be 5.25. An inspection of the mean ratings for satisfaction and change in satisfaction by country reveals that this 'gold standard' was not achieved in any case.

The effects of position

There was some confirmation within each country - and across the four samples - of the notion that those holding higher positions, especially principals, would be more satisfied and less stressed due to their greater power, authority and 'control' over their work. However, the national context of education, rather than position, was the strongest predictor of overall satisfaction, change in satisfaction and level of mental stress, as measured by the GHQ.

The relatively poor results recorded by the English respondents, especially by head teachers (principals), are thus largely attributable to the pressures, changes and overall difficult context of the English education system at present. The comparatively better results for teachers and school executives from the US sample derive from their more favourable educational context, with teachers and school executives reporting feeling much better about themselves, their work and how they are regarded by society. Australia and New Zealand, based on the samples from each country, lie somewhere between these two extremities: Australia is closer to England and New Zealand closer to the US in terms of overall satisfaction, changed satisfaction and GHQ scores.

The differences in satisfaction between school executives in the four countries may be partly explained by the extent to which the situations of head

teachers/principals truly equate with being 'at the top' of their respective organisations. We would contend that the position of head teachers in Britain, given the layers of accountability under which they operate - such as national curriculum requirements and OFSTED inspections, mentioned by many of those surveyed as problematic - more resemble lower/middle management in terms of their 'control', operation and reported satisfaction levels. Comparatively, the position of principal in New Zealand or the US more closely equates with that of a CEO or more autonomous leader, although there are obviously still lines of authority and accountability between a school and its districts and boards.

Another phenomenon acting to lower the satisfaction scores of English head teachers might be their need to teach in place of absent colleagues in order to save funds, something frequently reported in open-ended comments by those surveyed.

Although school type was predictive of mental well being, overall satisfaction or change in satisfaction, inspection of the table of means indicates a definite trend for secondary principals/head teachers to be 'doing better' than their primary colleagues. The fact that primary principals/head teachers are frequently also classroom teachers suggests that the pressure of work could indeed be an important factor eroding their satisfaction. As such, this supports the hypothesis that lack of control over pacing and timetabling of work is a significant factor for predicting lower levels of mental well being.

The British experience

Given that the English sample of teachers and school executives recorded the lowest levels of satisfaction on most measures, it is useful to explore the context of British education more fully, especially given that it often serves as a leader in influencing what happens in other countries such as Australia and New Zealand in matters such as public sector restructuring and 'school-based site management' (Harman et al 1991).

Troman has undertaken an intensive study of the stress faced by British primary school teachers (Troman, in press). He sees many of the changes imposed on education as manifestations of what he calls the 'low trust society'. The advent of High Modernity has seen an erosion of the old patterns of relationships that formed the basis of social trust. In its stead, trust has been replaced by systems of regulation, auditing, 'accountability' and mechanisms of overseeing.

In Britain, education has particularly suffered, partly because the new distrust of teachers as professionals is manifested in and encouraged by the advent of 'parentocracy', which is replacing earlier phases of school-parent relations where parents were first held at arm's length, and then invited to join schools as partners.

Troman has observed that the decline in trust in teachers has resulted in the institutionalisation or mandating of a new 'managerialist' style of school governance. He comments on the effects of the introduction of this style - notably an erosion of trust between head teachers and their staff - and observes:

the negative effects of the intensification of work and managerialism on primary teachers and collegial relations in the primary school. In the context of secondary schooling, Ball (1988) too uses labour process theory to explain that intensification involving the separation of conception (managers) from execution (teachers) had fragmented staffs creating an 'us and them' culture more characteristic of industrial contexts.

Troman and other investigators (eg Reay 1996) have found the extent of conflict between head teachers and staff - ie the severity of the 'us-them' culture in a school - to be significantly related to teachers' reported level of stress. Other researchers have also noted that the behaviour of head teachers also directly affects teachers' levels of self-rated occupational satisfaction (Evans 1992).

The deterioration in staff relations following the introduction of managerialist styles may also at least partially be the result of few head teachers having any effective leadership preparation - and little understanding of what it means to lead in the new circumstances. Certainly, some of the participants in Troman's study made comments suggesting that, in their experience, inexperienced head teachers equated being 'the boss' with behaving in bossy and critical ways.

In the present study, material from the open-ended sections of the instrument clarified some of the difficulties experienced by executives in England; difficulties also noted to a lesser extent by respondents in Australia, New Zealand and the US.

English head teachers (principals) who participated in the study reported the strain of over-work, and some reported always feeling 'stressed' and under pressure and of going home late and feeling exhausted from school. They also frequently expressed concern about the demands arising from OFSTED inspections, the National Curriculum and related student achievement testing, observing that both overseeing changes and the related paperwork had eaten into time devoted to what they saw as 'core business' aspects of their work, and/or into personal time.

Several head teachers also mentioned the difficulty of implementing imposed education changes when staff members are opposed to them:

Being required to implement changes in which I don't believe with a staff who also disagree with them, is not motivating. Knowing that the doubts I and many of my colleagues have will be dismissed as cynical, progressive (which I am not) or a pathetic justification of failure, undermines my professionalism and educational experience. (head teacher - male, 48)

From the ‘opposite’ perspective, English classroom teachers commented on the changes to school relations wrought by the shift in emphasis towards a managerial model and the resulting increase in the powers of school executive:

Head Teachers have no incentive to listen to staff. Greater Head Teacher powers make it impossible for teaching staff to have a professional voice. (classroom teacher - female, 30)

Classroom teachers who participated in our research also noted the destructive effects of the sort of poor staff relations discussed above:

This school seems to have a particularly high level of illness and staff generally believe (rightly or wrongly) that it is caused by management style - possibly of Head Teacher. (deputy head - female, 49)

Externally imposed pressures were frequently noted - by the participants in our research and in Troman’s - as leading to distortions in priorities, unwanted compromises and conflict in staff relationships. Not only did the demands of OFSTED inspections and other changes increase workload and related strain, but expectations that schools would compete for students in a deregulated education ‘market’ - a manifestation of ‘parentocracy’ - also contributed. Troman’s participants also noted this extra pressure, and one commented that her head teacher’s ‘PR’ activities, designed to ‘market’ the school through such means as community links and an anti-bullying policy,

... didn’t actually function that well but it looked good on paper. We had all these pictures in the paper of the teachers and kids doing weird and wacky things. The skeleton of the curriculum was just not at all there.

Some participants in our research expressed concern about the possible consequences for both the quantity and the quality of future appointees to the position of head teacher:

The appointment of Heads is now a big problem and my fear is that many inadequate ones will be appointed. Schools running as businesses? Should this be a question? I don’t believe it can work. (supply teacher - female, 51)

The impact of executive satisfaction

The participants in our study and in that conducted by Troman noted the extent to which executive attitudes and behaviour affected the satisfaction of all teachers in a school. Research on school climate, going back to the pioneering work of Halpin and Croft (Owens 1998, p 169), has suggested that leadership in schools plays an important role in determining the health and functioning of the school organisation. Intuitively, leaders who are not ‘doing well’ may act and react in ways that have consequences for the entire school. The significant and positive relationship between satisfaction with school leadership and overall satisfaction provides empirical support for this contention.

Conclusion

Results of the four-nation study of teacher and executive career satisfaction and stress indicate that certain sub-populations of teachers in each country may be the 'pressure points' of the systems, and are perhaps taking more of the brunt of educational change and societal pressures than others. This group includes 'middle executives' in Australian schools and English head teachers (principals), although it must be said that all position holders in England, based on the sample, appear to be coping poorly in the face of the pressures and challenges they are experiencing.

This question of 'pressure points' is an area where further exploration is needed, using new samples (see Dinham et al (2000) for a recent study involving secondary heads of department). If this does turn out to be the case, these 'pressure points' may in fact act as 'sticking points' - and indicate where change is being less well managed and where more needs to be done to support those concerned to meet their responsibilities and the expectations held for their positions.

There thus exists the possibility of a 'paradox of educational change', whereby greater pressure for educational change impacting at one or more of these 'sticking points' could result in less change of a desired nature, but with more dysfunctional and unintended changes emerging in their place.

Notes

1. The following institutions and staff were involved:
 - New Zealand: Massey University - Richard Harker, Colin Gibbs, Kama Weir, Heather Ryan, David Adams (Okato College, Taranaki);
 - England: Nottingham Trent University - Catherine Scott, Sue Cox;
 - US: Rowan University (New Jersey) - Ron Capasso; and
 - Australia: University of Western Sydney - Steve Dinham, Catherine Scott.
2. The regional structure was in the process of being removed from the DSE administrative hierarchy at the time the study took place; the DSE is now known as the New South Wales Department of Education and Training (DET).
3. Rounding of percentages may mean that figures in this section do not total 100%.
4. Introduced in the early 1990s to recognise and reward the exemplary classroom teacher, the AST classification is in the process of being removed from most Australian educational systems (see Dinham & Scott 1997b).

5. In both England and Australia, schools were over-supplied (5% or more) with surveys by mail, to enable casual/emergency and part-time staff to participate. The response rates for those two countries were deflated. In New Zealand, where response rates were highest, researchers were able to visit the sample schools to explain the project and procedures.

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