

# ADVANCES IN RESEARCH ON TEACHING

Series Editor: Volumes 1-11: Jere Brophy

Volumes 12-17: Stefinee Pinnegar

## Recent Volumes:

- Volume 1: Teachers for Understanding and Self Regulation
- Volume 2: Teacher Knowledge of Subject Matter
- Volume 3: Planning and Managing Learning Tasks
- Volume 4: Case Studies of Teaching and Learning
- Volume 5: Learning and Teaching Elementary Subjects
- Volume 6: Teaching and Learning History
- Volume 7: Expectations in the Classroom
- Volume 8: Subject-Specific Instructional Methods and Activities
- Volume 9: Social Constructivist Teaching: Affordances and Constraints
- Volume 10: Using Video in Teacher Education
- Volume 11: Learning from Research on Teaching: Perspective, Methodology and Representation
- Volume 12: Tensions in Teacher Preparation: Accountability, Assessment, and Accreditation
- Volume 13: Narrative Inquiries into Curriculum Making in Teacher Education
- Volume 14: Places of Curriculum Making: Narrative Inquiries into Children's Lives in Motion
- Volume 15: Adolescent Boys' Literate Identity
- Volume 16: Narrative Inquirers in the Midst of Meaning-Making: Interpretive Acts of Teacher Educators
- Volume 17: Warrior Women: Remaking Post-Secondary Places through Relational Narrative Inquiry

ADVANCES IN RESEARCH ON TEACHING VOLUME 18

# EMOTION AND SCHOOL: UNDERSTANDING HOW THE HIDDEN CURRICULUM INFLUENCES RELATIONSHIPS, LEADERSHIP, TEACHING, AND LEARNING

EDITED BY

**MELISSA NEWBERRY**

*Bringham Young University, Provo, UT, USA*

**ANDREA GALLANT**

*Deakin University, Burwood, Australia*

**PHILIP RILEY**

*Monash University, Melbourne, Australia*



United Kingdom – North America – Japan  
India – Malaysia – China

Emerald Group Publishing Limited  
Howard House, Wagon Lane, Bingley BD16 1WA, UK

First edition 2013

Copyright © 2013 Emerald Group Publishing Limited

Reprints and permission service  
Contact: [permissions@emeraldinsight.com](mailto:permissions@emeraldinsight.com)

No part of this book may be reproduced, stored in a retrieval system, transmitted in any form or by any means electronic, mechanical, photocopying, recording or otherwise without either the prior written permission of the publisher or a licence permitting restricted copying issued in the UK by The Copyright Licensing Agency and in the USA by The Copyright Clearance Center. Any opinions expressed in the chapters are those of the authors. Whilst Emerald makes every effort to ensure the quality and accuracy of its content, Emerald makes no representation implied or otherwise, as to the chapters' suitability and application and disclaims any warranties, express or implied, to their use.

**British Library Cataloguing in Publication Data**

A catalogue record for this book is available from the British Library

ISBN: 978-1-78190-651-4  
ISSN: 1479-3687 (Series)



ISOQAR certified  
Management System,  
awarded to Emerald  
for adherence to  
Environmental  
standard  
ISO 14001:2004.

**ISOQAR**  
REGISTERED

Certificate Number 1985  
ISO 14001



INVESTOR IN PEOPLE

# CONTENTS

## LIST OF CONTRIBUTORS

ix

## TESTIMONIALS

xiii

## PREFACE: THE DAY OF JUDGMENT

*Andy Hargreaves*

xv

## PART I: UNDERSTANDING THE HIDDEN CURRICULUM OF EMOTIONS

### THE ENCHANTED LOOM

*Bernie Neville*

3

### THE DEMAND OF MULTIPLICITY IN THE CLASSROOM: EMOTION REGULATION AND COGNITIVE LOAD

*Melissa Newberry*

25

### EMOTIONS IN EDUCATION POLICY: A SOCIAL CONTRACT ANALYSIS OF ASYMMETRICAL DYADS AND EMOTION

*Shaun Rawolle*

49

## PART II: THE HIDDEN CURRICULUM ACROSS THE SCHOOL LANDSCAPE

### ORGANISATIONAL POSITION AND SOCIAL-PROFESSIONAL RELATIONSHIPS IN SCHOOLS: AN EXPLORATORY STUDY OF TEACHER LEADERS' WORK LIFE IN FLANDERS

*Charlotte Struyve and Geert Kelchtermans*

63

|  |     |
|--|-----|
| THE EMOTIONAL LABOUR OF THE ASPIRANT LEADER: TRAVERSING SCHOOL POLITICS<br><i>Andrea Gallant and Philip Riley</i>  | 81  |
| LIFE ON SCHOOL LANDSCAPES: TEACHERS' EXPERIENCES, RELATIONSHIPS AND EMOTIONS<br><i>Cheryl J. Craig</i>   | 99  |
| LEARNING TO TEACH AND THE FALSE APPRENTICESHIP: EMOTION AND IDENTITY DEVELOPMENT DURING THE FIELD EXPERIENCE PLACEMENT<br><i>Shawn Michael Bullock</i>   | 119 |
| THE INTERPERSONAL DIMENSION IN THE CLASSROOM: A MODEL OF TEACHERS' INTERPERSONAL ROLE IDENTITY, APPRAISAL AND TEACHER-STUDENT RELATIONSHIPS<br><i>Perry den Brok, Anna van der Want, Douwe Beijaard and Theo Wubbels</i> | 141 |
| <b>PART III: NAVIGATING THE HIDDEN CURRICULUM</b>  |     |
| SELF-CONSCIOUS EMOTION: HOW TWO TEACHERS EXPLORE THE EMOTIONAL WORK OF TEACHING<br><i>Andrea Gallant</i>   | 163 |
| TECHNOLOGY-MEDIATED CARING: BUILDING RELATIONSHIPS BETWEEN STUDENTS AND INSTRUCTORS IN ONLINE K-12 LEARNING ENVIRONMENTS<br><i>Jered Borup, Charles R. Graham and Andrea Velasquez</i>                                   | 183 |
| CLASSROOM MANAGEMENT: A PATHWAY TO IMPROVING SCHOOL CLIMATE IN TWO BRITISH SECONDARY SCHOOLS<br><i>H. Jerome Freiberg, Stacey M. Templeton and Sabra Helton</i>  | 203 |

**PART IV: PAYING ATTENTION TO THE HIDDEN CURRICULUM**

|   |     |
|---|-----|
| TYPES OF PROFESSIONAL AND EMOTIONAL COPING AMONG BEGINNING TEACHERS<br><i>Paul W. Richardson, Helen M. G. Watt and Christelle Devos</i> | 229 |
| A REFLECTION ON THE PLACE OF EMOTION IN TEACHING AND TEACHER EDUCATION<br><i>Anita Woolfolk Hoy</i>                                     | 255 |
| AFTERWORD: THE TEACHING FANTASIA  | 271 |
| ABOUT THE CONTRIBUTORS  | 279 |

# TYPES OF PROFESSIONAL AND EMOTIONAL COPING AMONG BEGINNING TEACHERS<sup>1</sup>

Paul W. Richardson, Helen M. G. Watt and  
Christelle Devos

## ABSTRACT

*Teaching is increasingly recognised as a complex, demanding career. Teachers experience higher levels of stress and burnout than other professionals. The career is subject to heightened levels of public scrutiny and yet offers only modest rewards in the form of social status and income. Drawing on a typological model of coping styles among a diverse sample of German health professionals, we identified six types of emotional coping (Good health, Sparing, (healthy) Ambitious, (path to) Burnout, Diligent, and Wornout) among a longitudinal sample of 612 Australian primary and secondary teachers. A significant outcome of our study was the empirical differentiation between burned out and wornout teachers. This extends the literature on teacher burnout and offers new directions to the study of 'at risk' beginning teachers.*

**Keywords:** Beginning teachers; at risk teachers; wornout teachers; emotional coping

---

Emotion and School: Understanding How the Hidden Curriculum Influences Relationships, Leadership, Teaching, and Learning  
Advances in Research on Teaching, Volume 18, 229-253  
Copyright © 2013 by Emerald Group Publishing Limited  
All rights of reproduction in any form reserved  
ISSN: 1479-3687/doi:10.1108/S1479-3687(2013)0000018016

As we enter the second decade of the 21st century, teaching is recognised as a challenging, rewarding and demanding occupation, especially in contexts where heightened expectations are expressed through management structures that audit, monitor and assess teaching quality and learning outcomes (OECD, 2005, 2011). Parents, employers, children and adolescents with whom teachers intensively engage in schools and classrooms have been identified as part of what makes the job increasingly emotionally and psychologically demanding. Teaching as a profession is increasingly demanding new roles, becoming less stable, and in many developed countries, offering relatively low status, prestige and monetary rewards in comparison with other professions (Richardson & Watt, 2006).

As preservice teachers make the transition to become workers, they simultaneously assume new roles and responsibilities, set goals for their students and negotiate what it means to work in the specific contexts where they find themselves. Unlike other professions where the induction process is more graduated, beginning teachers are expected to take on similar roles and responsibilities to those of more experienced teacher colleagues immediately, including developing their own lessons, and reporting to parents and senior teachers about students' progress. Concurrently, they need to establish their authority with students as well as winning the confidence of experienced colleagues. Novice teachers are commonly assigned the most difficult schools and classrooms, where they often encounter tough to manage student misbehaviour or students with special needs (Meinick & Meister, 2008). As novices, beginning teachers need to grow in competence and experience by drawing on their personal resources and those available to them externally from senior colleagues, mentors, the school leadership and other systemic supports. However, like all workplaces, the level and quality of support for newcomers can vary significantly from one setting to another, each having its own norms and demands.

Individuals who choose teaching as a career are generally highly motivated (Watt & Richardson, 2007). They have high ideals, expectations and standards for themselves and their students, desire to be good teachers, and may even want to represent a new generation with improved teaching methods. Beginning teachers are susceptible to concerns, insecurities and problems associated with the responsibility of taking on the multiple roles required of a teacher, and, at the same time, learning how to teach effectively. The period of induction can represent the realisation of the most positive expectations for some, and a nightmare for others (Hebert & Worthy, 2001). Beyond the time in the classroom, there are few fixed schedules, making it difficult to know when one has done enough, particularly

for those novice teachers who strive to create excellent lessons, making themselves vulnerable to over-exertion (Kerchtermans, 2009). In these initial years, the challenges and difficulties they encounter are often compounded by lack of time to prepare, inadequate rest, and scant professional preparation for the socioemotional and relational demands they encounter on a daily basis, especially with students and even with other teacher colleagues. Consequently, beginning teachers face a large set of demands and challenges that come from (i) the characteristics of the teaching profession, (ii) the working environment (including external regulations and policy demands) in which teachers operate and (iii) the beginning teachers themselves.

How do different types of beginning teachers cope with the stressors of their early years in the profession? In this chapter we hypothesise that novice teachers will bring differential socioemotional resources into a career in teaching and will display different ways of coping. Some will do well and maintain high levels of emotional wellbeing, while others, in an effort to protect their personal wellbeing, are likely to 'reject' excessive demands and become professionally less engaged. It is equally likely that others will try to meet the high demands of the profession, but at the expense of their emotional wellbeing, risking burnout. It is an open question as to whether we might also identify other coping styles.

## TEACHER COPING AND EMOTIONAL HEALTH

Teaching is a profession within which early attrition is an acute problem in the United Kingdom, United States, Australia and many European countries (see Darling-Hammond, 2003; Ingersoll & Smith, 2003; Kyriacou & Kunc, 2006; OECD, 2005; Purrell, Wilton, Davies, & Elias, 2005), which has been linked to job stress and burnout. Teachers generally report their professional experience to be highly stressful (Travers & Cooper, 1993, 1997). Persistent sources of teacher stress are student misbehaviour, parent-teacher relationships, interactions with colleagues, student attitudes to learning, work conditions, increased workload, lack of school leadership support, a target-driven culture, and lack of autonomy (Brown, Davis, & Johnson, 2002; Skaalvik & Skaalvik, 2007).

If stress is defined as 'a response syndrome of negative effects, which are developed when there are prolonged and increased pressures that cannot be controlled by an individual's coping strategies' (Jepson & Forrest, 2006, p. 183), then the resources an individual has to draw on are central to

whether that person thrives or not. The Conservation of Resources (COR) theory of stress (Hobfoll, 1988, 1989) indicates how stress is activated, and a mechanism for how it may progress to burnout. According to this model, psychological stress emerges when one of the following occurs: the resources an individual values are threatened, resources are lost, or resources are invested without obtaining the anticipated reward. As Friedman succinctly observed, when 'motivation is thwarted or denied, stress ensues' (1996, p. 245). Teachers who maintain their high motivations in situations where they cannot be attained, are likely to burnout (de Jesus & Lens, 2005). Burnout has been linked to teacher turnover (Maslach, Schaufeli, & Leiter, 2001), low professional commitment, poor coping strategies, low work satisfaction, poor wellbeing and early retirement (Cano-Garcia, Padilla-Munoz, & Carrasco-Ortiz, 2005; Hakonen, Bakker, & Schaufeli, 2006; Kovess-Masféty, Rios-Seidel, & Sevilla-Dedieu, 2007; Krieschke & Schaaarschmidt, 2008). Importantly, burnout is a forerunner to dysfunctional teaching behaviours, with negative implications for student learning (Dorman, 2003).

When an individual does not have the resources to successfully cope with chronic stress, the path to burnout becomes marked. It was Freudenberg (1975) who is credited with providing the label *burnout*. Burnout, he proposed, resulted from prolonged work-related stress and manifested as physical and emotional exhaustion. Maslach and Jackson (1981) developed what has become a widely used multidimensional definition and measurement of burnout, which consists of emotional exhaustion, depersonalisation and perceived reduced personal accomplishment. Emotional exhaustion is considered the key dimension of burnout (Maslach et al., 2001). The job of teaching appears to exact a considerable toll; teachers suffer more from a lack of occupational motivation than other professional groups (Krieschke & Schaaarschmidt, 2008), are prone to burnout more than other professionals (Hodge, Jupp, & Taylor 1994; de Heus & Diekstra, 1999; Johnson et al., 2005; Montgomery & Rupp, 2005; Stoerber & Rennert, 2008), across different cultural contexts (Byrne, 1999; Fernet, Guay, Senécal, & Austin, 2012; Rudow, 1999).

In a U.S. longitudinal study, Schonfeld (1992) argued that it was important to focus on beginning teachers because they provided an ideal population in which to examine the 'job-related risk factors for ill health' (p. 151). He concluded from three sets of analyses that depressive symptoms were indeed linked to school conditions, which included ongoing stressors (overcrowded classrooms, unmotivated and disruptive students, lack of administrative support) and episodic stressors (threats, confrontation with insolent students, vandalism). Adverse school conditions appeared to have

negative effects on mental health and wellbeing, whereas more benign environments in which there was support and advice related to better health outcomes for the beginning teachers. Schonfeld (1992) found that pre-employment depressive symptoms were not related to any school environment variables, which implies that teachers' stress was due to work-related factors. Yet, in an Australian longitudinal study, full-time teachers listed a range of job and environment-related factors for their decision to leave teaching, whereas part-time teachers nominated stress-related factors. Intriguingly, the part-time teachers had higher levels of trait-depression and neuroticism than the full-time teachers, both during their teacher education and after their first five years of teaching (Wilhelm, Dewhurst-Savellis, & Parker, 2000). Findings such as these lend support to researchers who question whether teachers' own dispositional characteristics may interact with features of the workplace to produce signs of burnout, even very early in their teaching careers (Goddard & O'Brien, 2006). Because of the increased vulnerability of beginning teachers coupled with difficulties related to commencing in the teaching profession (such as temporary positions, difficult schools and classes, lack of experience, time needed to prepare lessons), we expect them to display symptoms associated with burnout. Yet, since they are only recently exposed to the work-related stressors of the teaching profession, we anticipate that they should display this pattern of characteristics at a lower level than documented among veteran teachers.

A complementary construct of 'wornout' has been proposed (Stephenson, 1990). While this construct shares similar aspects with burnout, it is importantly different. *Wornout* teachers reduce their effort and occupational engagement in order to cope with chronic stressors, and are no longer personally invested in performing well. Stephenson (1990) identified three times as many teachers were wornout than burned out. Teachers who are worn down by their work exhibit reduced work goals, lower responsibility for work outcomes, lower idealism, heightened emotional detachment, work alienation and self-interest (Burke & Greenglass, 1995). Is it possible to empirically identify this and other coping types among early career teachers?

## TYPES OF TEACHER COPING

Previous studies have tended to adopt 'variable centred' approaches to consider teachers' coping and emotional health primarily using mean scores

and examining factor correlations (see Hakanen et al., 2006; Stoerber & Rennert, 2008). Few studies have considered how factors combine together to characterise different types of beginning teachers, according to whether they may be emotionally at risk, or coping well, in their early years. While variable centred approaches provide some information concerning how these variables interrelate, they do not tell us how factors might group to define different types or profiles of teachers. Yet, in order to better understand beginning teachers' experience, we need to understand how they are coping in their early years. What types of professional and emotional coping do novice teachers display? This is the main question to be addressed in our study.

#### *An Existing Typology of Health Professionals*

A large typological study has been conducted among diverse health professionals in Germany, including police, firefighters, aged-care workers, nurses, entrepreneurs, social workers, childcare professionals, penitentiary workers and teachers. On the basis of 11 self-reported coping dimensions from the AVEM questionnaire (Schaarschmidt & Fischer, 1997, *Arbeitsbezogene Verhaltens- und Erlebensmuster [Pattern of Work-related Coping Behavior]*); subjective significance of work, professional ambition, tendency to exert, striving for perfection, emotional distancing, resignation tendencies, offensive coping with problems, balance and mental stability, satisfaction with work, satisfaction with life, and experience of social support), these researchers identified four types of health professionals who exhibited different profiles of coping: 'G: Good psychological health', 'S: Sparing', 'A: Excessively ambitious', and 'B: Burnout' (see Kieschke & Schaarschmidt, 2003, 2008; Schaarschmidt, 2004; Schaarschmidt & Fischer, 1997; Schaarschmidt, Kieschke, & Fischer, 1999).

Types G and S exhibit positive psychological health, but differ in the extent to which they are committed to their professional work. Types A and B differ in their degree of professional commitment and are both risk types for poor psychological health outcomes. Rather than summary scores for each dimension, what is important is individuals' profiles across the dimensions. For example, high professional commitment in and of itself does not constitute a health risk; however, if coupled with an impaired coping capacity, the individual will be psychologically at risk (Kieschke & Schaarschmidt, 2008).

Specifically, type G show moderate professional commitment, are able to emotionally distance themselves from work, exhibit high wellbeing and possess good coping skills. Type S display below average commitment, a low sense of resignation indicating they have not given up, but an above average ability to distance themselves emotionally from their work. This group experiences high wellbeing stemming from factors outside the workplace, and typically complete only what work is necessary. Type A show excessive commitment to work, limited ability to emotionally distance themselves and poor coping skills, making them less resilient when faced with work stressors. They experience a discrepancy between their commitment and the absence of success, which leads to a 'gratification crisis' (see Kivimäki et al., 2004). Finally, type B are often exhausted and emotionally negative, have high dissatisfaction and reduced commitment to work, limited ability to cope and are less able to emotionally distance themselves from work, leading to lowered wellbeing (Kieschke & Schaarschmidt, 2008). The incidence of type B was most prevalent among teachers compared with other health professionals in the German study (Kieschke & Schaarschmidt, 2008).

#### *Towards a Typology of Beginning Teachers' Professional and Emotional Coping*

The dimensions and profiles identified by Kieschke and Schaarschmidt (2008); see also Klusmann, Kunter, Trautwein, Lüdtke, & Baumert, 2008 provide a well-developed and useful framework from which to approach the specific study of the professional and emotional coping profiles of beginning teachers. Since the German population of health professionals differed from our population of Australian beginning teachers, we expected to reveal some differences in identified coping profiles, due to the particular content of the teaching profession, participants' work experiences and their work contexts. For example, in settings such as Germany where resigning a teaching position has a high 'cost', such as the loss of pension benefits, the consequences may induce teachers to remain, and possibly suffer high levels of emotional distress. It would be expected that heightened negative responses to stressors, coupled with a reluctance to leave the profession despite experiencing great difficulties, increases the risk of experiencing burnout. As another example, career switchers into teaching from a range of other professional backgrounds are likely to display different professional and

emotional coping strategies from those of younger adults entering into their first job. Career switchers into teaching are rather common in the Australian context, but unlikely in Germany because of structural requirements to entering teacher education.

Another difference between our study and the previous German study is that to better tap beginning teachers' experiences in different professional and cultural settings, and to address our interest in specific dimensions of coping (e.g. emotional wellbeing), we added a measure of emotional exhaustion to the AVEM coping factors, as the basis from which to explore teacher types. Because the teaching profession has been found to be one of the most stressful professions with the highest incidence of burnout (Kieschke & Schaarschmidt, 2008), it seemed important to us to investigate this dimension more intently so as to better differentiate participants. These kinds of differences between our study and the German study are likely to lead to identification of different types of coping profiles among our sample of beginning teachers in Australia.

The literature on beginning teachers foregrounds two dimensions which appear central to how they appraise their professional experiences. On the one hand, novice teachers are confronted by an array of competing demands, arising from within themselves, as well as a function of the characteristics of the profession played out in particular school environments. External demands, exercised through governmental and school-level policies and practices, increasingly push novice teachers to strive for high professional commitment and achievement. On the other hand, during the initial years of teaching, their emotional wellbeing is often challenged by the necessity to come to terms with factors such as interpersonal relationships with students, a high workload, gaining professional recognition from colleagues and parents and being often employed in insecure job contract positions. It is increasingly acknowledged that teachers' psychological, physical and emotional wellbeing has a bearing on their professional aspirations, development and retention in the profession, and is thereby critically related to their students' wellbeing and achievement (Richardson & Watt, 2010). If we are to better understand the reasons why people leave teaching early in their career, it seems especially important to reflect on the coping resources and strategies needed by beginning teachers and what might be the short and longer-term consequences of different coping mechanisms and strategies.

The major objective of the study reported in this chapter was to identify profiles or clusters of beginning teachers with regard to their professional

and emotional coping and consequent psychological wellbeing. Can different coping profiles be distinguished among beginning teachers? How do professional and emotional coping dimensions interrelate – are they associated or incompatible? And, what are the consequences for psychological health? To tap into these dimensions, we used the items of the AVEM questionnaire and added items from the emotional exhaustion scale of the Maslach Burnout Inventory – Educators' Survey (MBI-ES; Maslach, Jackson, & Leiter, 1996) in order to investigate more thoroughly the emotional wellbeing dimension for teachers. As we have seen, teachers are more likely than other professionals to experience burnout, and emotional exhaustion is considered the core dimension of the burnout syndrome (Maslach et al., 2001). Enriching this dimension ought to therefore offer a better discrimination of beginning teacher types. We anticipated finding similar profiles to those identified in the German study (Kieschke & Schaarschmidt, 2008), resembling *Ambitious*, *Sparing*, *Good health* and *Burnout*; further, we expected the additional items tapping the emotional wellbeing dimension would provide a more fine-grained exploration of burnout-related profiles. In particular, and as proposed in the literature, we were interested in the possibility of differentiating a wornout from a burned out profile.

We set out to empirically investigate these questions among a sample of Australian primary and secondary school teachers, within their first eight years of professional practice. Specifically, our key research questions were:

1. Are there different types of early career teachers in terms of their profiles of emotional coping?
2. Do they replicate the G/S/A/B types identified among a diverse sample of German health professionals?
3. Is a *Wornout* type empirically identifiable?
4. What are the consequences for emotional health?

We hypothesised that a Burnout path would be identifiable but less pronounced for early career teachers; that *Wornout* and *Burnout* profiles could be distinguished as a consequence of including emotional exhaustion together with the AVEM; that the *Ambitious* type may not yet be at a point where they would be at psychological risk, since our focus is on beginning teachers who may not have had sufficient time in the profession to experience the levels of depletion associated with burnout; and finally, that in a teacher-only sample other coping types may be discernible.



**METHOD**

*Participants and Procedure*

Longitudinal data come from 612 Australian beginning teachers (77.9% women) from the ongoing FIT-Choice project (Factors Influencing Teaching Choice; www.fitchoice.org), who completed primary or secondary teacher education (*n* = 253 and 359 respectively), entered the teaching workforce, and were currently teaching or on a temporary break up to 8 years later (525 currently teaching). Data for the present study come from a broader set of measures collected via an online self-report survey following relevant ethical and departmental approvals.

*Measures*

Emotional coping was measured by the short-form English translation of the AVEM (Kieschke & Schaarschmidt, 2008), as well as the Emotional Exhaustion (EE) subscale of the Maslach Burnout Inventory – Educators’ Survey, validated across a large sample of teaching professionals in the United States (MBI-ES; Maslach et al., 1996). The AVEM covers the areas of professional commitment, coping capacity and subjective wellbeing measured by 11 subscales each containing 6 items rated from 1 (strongly disagree) to 5 (strongly agree). The short-form consists of 1 item per 10 of these 11 dimensions, and 2 items for the Resignation dimension, considered a core factor by the authors (Kieschke & Schaarschmidt, 2008). The EE subscale of the MBI-ES measures feelings of being emotionally overextended and exhausted when individuals are unable to psychologically give of themselves to the degree required.

Emotional health was measured by the Depression Anxiety and Stress Scale (DASS; Lovibond & Lovibond, 1995). The DASS taps three factors: Depression, Anxiety and Stress, measured by 21 statements rated in relation to the past two weeks, from 0 (did not apply to me at all) to 3 (applied to me very much, or most of the time). Descriptions of all measures including sample items are summarised in Table 1.

*Analyses*

Maximum likelihood exploratory factor analyses examined the structure from the items of the AVEM short-form; Cronbach’s alpha assessed internal consistency of resultant factors as well as the EE dimension of the MBI-ES.

**Table 1.** Construct Details, Reliabilities and Sample Descriptives.

| Scale                              | Construct                       | # items | Sample Item  | Anchors   | $\alpha$ | <i>M</i> | <i>SD</i> |
|------------------------------------|---------------------------------|---------|--|---|----------|----------|-----------|
| AVEM (short-form)                  | Professional ambition           | 2       | To what extent is it true for you that you see work as the most important part of your life?                       | 1 = not at all true – 7 = totally true  | .73      | 3.67     | 1.54      |
|                                    | Professional exertion           | 3       | To what extent is it true for you that you give too much of yourself, if a specific work assignment requires it?   | 1 = not at all true – 7 = totally true  | .68      | 4.86     | 1.33      |
|                                    | Subjective wellbeing and coping | 6       | To what extent is it true for you that you are able to rely on understanding and support from people close to you? | 1 = not at all true – 7 = totally true  | .78      | 5.32     | 0.93      |
| MBI-ES                             | Emotional Exhaustion            | 9       | I felt used up at the end of a work day.   | 1 = never – 7 = every day   | .90      | 3.76     | 1.20      |
| DASS (short-form) <i>past week</i> | Stress                          | 7       | I found it hard to wind down.  | 0 = Did not apply to me at all – 3 = Applied to me very much, or most of the time | .85      | 0.72     | 0.57      |
|                                    | Anxiety                         | 7       | I felt I was close to panic.   | 0 = Did not apply to me at all – 3 = Applied to me very much, or most of the time | .78      | 0.27     | 0.39      |
|                                    | Depression                      | 7       | I felt down-hearted and blue.  | 0 = Did not apply to me at all – 3 = Applied to me very much, or most of the time | .89      | 0.40     | 0.51      |

Hierarchical cluster analysis using Ward's method produced six profiles of emotional coping, with the decision about number of clusters based on the cluster dendrogram, change in fusion coefficient relative to number of clusters, and substantive interpretability. Chi square tested for associations of clusters with gender, teaching strand and teaching status (whether currently teaching or on a temporary break). Two MANOVAs examined reduced cluster differences on each of the set of clustering variables and the DASS dimensions.

## RESULTS

### *Emotional and Professional Coping Profiles*

Three 'higher-order' constructs were reduced from the AVEM short-form: Subjective wellbeing and coping (6 items;  $\alpha = .78$ ), Professional ambition (2 items;  $\alpha = .73$ ) and Professional exertion (3 items;  $\alpha = .68$ ; see Table 1). The reliability of the EE factor was also confirmed (9 items;  $\alpha = .90$ ). Based on cluster analyses across these four factors, six types of emotional and professional coping profiles were identified ( $N = 506$ ). Influenced by the work of the German study referred to earlier (Kieschke & Schaarschmidt, 2008), we labelled the clusters: *Good health* ( $n = 125$ , 24.7%), *Sparing* ( $n = 91$ , 18.0%), *(healthy) Ambitious* ( $n = 98$ , 19.4%), *(path to) Burnout* ( $n = 92$ , 18.2%), *Diligent* ( $n = 56$ , 11.1%) and *Wornout* ( $n = 44$ , 8.7%).

The *Good health* and *Sparing* clusters highly resembled those by the same name described by Kieschke and Schaarschmidt (2008). The *(path to) Burnout* cluster appeared to be not yet completely burned out and the *(healthy) Ambitious* cluster seemed not too excessively ambitious or at risk and were so named to distinguish from the German study types. A *Wornout* cluster could be identified and was empirically distinct from the *(path to) Burnout* type. As well, a new *Diligent* cluster was found (see Fig. 1 and Table 2). There was a higher proportion of men in the *Sparing* and *Good health* types; conversely a higher proportion of women in the *(healthy) Ambitious*, *Diligent* and *(path to) Burnout* types, all of which share a high level of professional exertion ( $\chi^2(5, 504) = 11.14$ ,  $p = .049$ ). No differences occurred for secondary versus primary strand. Teachers on a temporary break were over-represented in the *Wornout* type, and under-represented in *(healthy) Ambitious*, *Good health* and *Sparing* types ( $\chi^2(5, 506) = 16.49$ ,  $p = .006$ ).

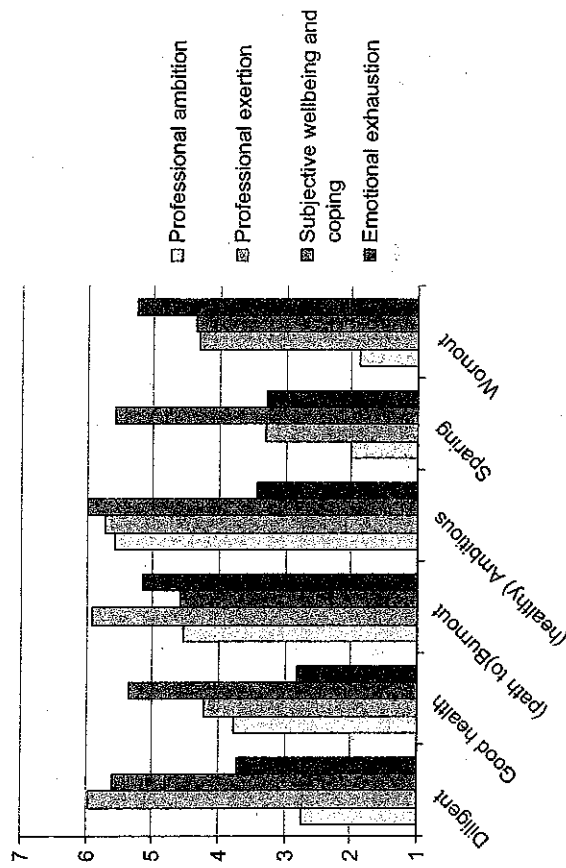


Fig. 1. Profiles of Beginning Teachers' Coping. Note: All items rated from 1 to 7.

The six types significantly differed on the combined set of cluster variables ( $F(20,2000) = 78.43$ ,  $p < .001$ , partial  $\eta^2 = .44$ ) and displayed significant differences on each of the four component dimensions: Professional ambition ( $F(5,500) = 250.54$ ,  $p < .001$ , partial  $\eta^2 = .71$ ), Professional exertion ( $F(5,500) = 143.16$ ,  $p < .001$ , partial  $\eta^2 = .59$ ), Subjective wellbeing and coping ( $F(5,500) = 47.95$ ,  $p < .001$ , partial  $\eta^2 = .32$ ) and Emotional exhaustion ( $F(5, 500) = 139$ ,  $p < .001$ , partial  $\eta^2 = .58$ ).

As shown in Table 2, *Burnout* and *Wornout* profiles scored significantly higher than the other types on emotional exhaustion and significantly lower on Subjective wellbeing and coping (Tukey post hoc tests,  $p < .05$ ). The *Sparing* type scored significantly lowest on Professional exertion and among the lowest on Professional ambition (not significantly different from the *Wornout*). The *(healthy) Ambitious* type scored significantly highest on Subjective wellbeing and coping and on Professional ambition, and among the highest in Professional exertion. The *Good health* and *Diligent* types displayed more average profiles, except that the first scored significantly lowest on Emotional exhaustion and the *Diligent* displayed highest scores on Professional exertion together with the *(healthy) Ambitious* and the *(path to) Burnout* types.

|                                 | Wornout<br>M (SD)        | Sparing<br>M (SD)        | (h)Ambitious<br>M (SD)   | (path to) Burnout<br>M (SD) | Good Health<br>M (SD)    | Diligent<br>M (SD)       |
|---------------------------------|--------------------------|--------------------------|--------------------------|-----------------------------|--------------------------|--------------------------|
| Professional ambition           | 2.75 (0.93)              | 3.77 (0.71)              | 4.54 (0.99)              | 4.54 (0.99)                 | 3.77 (0.71)              | 2.75 (0.93)              |
| Professional exertion           | 5.96 <sup>a</sup> (0.46) | 4.22 <sup>b</sup> (0.72) | 5.91 <sup>a</sup> (0.84) | 5.91 <sup>a</sup> (0.84)    | 4.22 <sup>b</sup> (0.72) | 5.96 <sup>a</sup> (0.46) |
| Subjective wellbeing and coping | 5.60 <sup>a</sup> (0.63) | 5.35 <sup>a</sup> (0.85) | 4.59 <sup>b</sup> (0.89) | 4.59 <sup>b</sup> (0.89)    | 5.35 <sup>a</sup> (0.85) | 5.60 <sup>a</sup> (0.63) |
| Emotional exhaustion            | 3.73 <sup>a</sup> (0.65) | 2.82 (0.80)              | 5.16 <sup>c</sup> (0.79) | 5.16 <sup>c</sup> (0.79)    | 2.82 (0.80)              | 3.73 <sup>a</sup> (0.65) |

<sup>a,b,c</sup>  $p > .05$  in Tukey paired post hoc comparisons.

Table 2. Cluster Means on Dimensions of Professional and Emotional Coping (N = 506).

*Pattern/Type '(h)A': (healthy) Ambitious*

These participants displayed among the highest scores on the AVEM scales. Work is central in their life and they want to achieve more than others. They give too much of themselves, want their work to be perfect and experience difficulties in switching off after work. Yet, they also report significantly highest scores of subjective wellbeing and coping. They are very satisfied with their life and professional success, and display offensive coping behaviours in actively confronting problems, coupled with low resignation when facing turmoil and challenges. Finally, they experience rather low levels of emotional exhaustion.

*Pattern/Type 'S': Sparing*

At the opposite end of the spectrum from the (healthy) Ambitious, participants identified as Sparing were mainly characterised by their low level of professional ambition and low professional exertion. Work is not at all the most important part of their life and they do not care about achieving more at work than others. They can easily switch off after work, and are more likely to distance themselves from it by not giving too much of themselves and not expecting their work to be perfect. Yet, these participants register very high wellbeing/coping and equally low emotional exhaustion to the (healthy) Ambitious type.

*Pattern/Type 'G': Good Health*

Between these two extremes, the participants identified as exhibiting Good health displayed moderate levels of professional ambition and exertion and had the lowest levels of emotional exhaustion. These participants seem to have found an agreeable level of professional investment and balance.

*Pattern/Type 'D': Diligent*

The Diligent pattern was a new type that appeared in our results, who simultaneously displayed a combination of low professional ambition and high professional exertion. On the one hand, they reported low scores for the importance of work in their lives and the motivation to achieve more work than others. On the other hand, they scored equal highest together with the (healthy) Ambitious and Burnout types with regard to their tendency to seek a high level of perfection in their work and give much of themselves when the demands of work require it. Further, they displayed similar positive levels of subjective wellbeing to the Sparing and Good health types, and similar low levels of emotional exhaustion to the (healthy)

*Ambitious*. They therefore seem to perform their work very conscientiously and diligently but without considering it to be central part of their life.

#### *Pattern/Type '(p)B': (path to) Burnout*

Participants in the *(path to) Burnout* profile were equal highest in professional exertion (together with the *(healthy) Ambitious* and *Diligent* types), and, second-highest after *(healthy) Ambitious* on professional ambition. However, they also scored significantly higher than the previous profiles on emotional exhaustion, and significantly lower on subjective wellbeing and coping. These participants therefore report significantly higher distress than the profiles presented above. They report feeling significantly more emotionally drained from their work, fatigued when they get up in the morning and 'used up' at the end of the day. They feel frustrated, and at the 'end of their rope'. Complementarily, they display significantly lower scores of satisfaction with life and work, mental stability and assertive coping. Yet, they are still highly engaged in their work. Despite their high emotional distress, they keep working hard, giving much of themselves and seeking perfection in their work. They are among the most engaged teachers but at the same time, among the least happy ones. This group appears likely to be on a path to burnout.

#### *Pattern/Type 'W': Wornout*

Teachers in the *Wornout* type displayed similar scores to the *Burnout* type on both the Subjective wellbeing and coping and Emotional exhaustion dimensions. These groups were equally lowest on wellbeing – they were the least satisfied with their life and career, quickly unsettled by difficulties, and highest on emotional exhaustion, which is characterised by feeling frustrated, emotionally drained, fatigued in the morning and used up at the end of the day. However, attitudes of the *Wornout* type towards their work were diametrically opposed to those of the *(path to) Burnout* group. Whereas the *(path to) Burnout* type maintained high levels of work engagement, the *Wornout* type, together with the *Sparing* type, reported equal lowest scores on professional ambition. That is, they do not consider their work to be central in their life, do not seek perfection in their work, nor do they care about achieving more in their work than others. As a result, they exercised only moderate levels of professional exertion, and tended not to give much of themselves. While the *(path to) Burnout* teachers were still highly identified with their work and struggling to do it well, the *Wornout* type appeared rather disengaged from their work, and seem to

**Table 3.** Cluster Means on Depression, Anxiety and Stress (DASS) (N = 459).

|            | Diligent                 |  | Good Health              |  | (path to) Burnout        |  | (healthy) Ambitious        |  | Wornout                  |  |                          |
|------------|--------------------------|--|--------------------------|--|--------------------------|--|----------------------------|--|--------------------------|--|--------------------------|
|            | M (SD)                   |  | M (SD)                   |  | M (SD)                   |  | M (SD)                     |  | M (SD)                   |  |                          |
| Depression | 0.38 <sup>b</sup> (0.43) |  | 0.21 <sup>b</sup> (0.36) |  | 0.86 <sup>c</sup> (0.63) |  | 0.22 <sup>b</sup> (0.30)   |  | 0.21 <sup>b</sup> (0.23) |  | 0.84 <sup>a</sup> (0.64) |
| Anxiety    | 0.20 <sup>b</sup> (0.25) |  | 0.17 <sup>b</sup> (0.30) |  | 0.53 <sup>c</sup> (0.56) |  | 0.23 <sup>b</sup> (0.27)   |  | 0.12 <sup>b</sup> (0.21) |  | 0.46 <sup>a</sup> (0.54) |
| Stress     | 0.82 <sup>b</sup> (0.41) |  | 0.44 <sup>a</sup> (0.40) |  | 1.24 <sup>c</sup> (0.60) |  | 0.63 <sup>b,c</sup> (0.44) |  | 0.47 <sup>a</sup> (0.42) |  | 1.12 <sup>a</sup> (0.61) |

a,b,c  $p > .05$  in Tukey paired post hoc comparisons.

have given up, consistent with the conceptual distinction between the two types (Stephenson, 1990).

### *Consequences for Emotional Health*

Different types of coping profiles had consequences for beginning teachers' emotional health as measured by the DASS ( $F_{(15,1377)} = 14.29, p < .001$ , partial  $\eta^2 = .14$ ). There were statistically significant cluster differences for each of Depression ( $F_{(5,459)} = 38.71, p < .001$ , partial  $\eta^2 = .30$ ), Anxiety ( $F_{(5,459)} = 16.08, p < .001$ , partial  $\eta^2 = .15$ ) and Stress ( $F_{(5,459)} = 39.45, p < .001$ , partial  $\eta^2 = .30$ ). As shown in Table 3, the *Wornout* and *(path to) Burnout* types scored significantly higher on each of these dimensions (Tukey post hoc tests,  $p < .05$ ). The other types scored similarly and lower on each of Depression and Anxiety; however, *(healthy) Ambitious* and *Diligent* types scored next highest after *(path to) Burnout* and *Wornout* on Stress, whereas *Good health* and *Sparing* types experienced the lowest stress levels.

## DISCUSSION

Teaching requires engaging in emotional labour, defined as the 'emotional regulation required to display organisationally desired emotions by the employees' (Zapf & Holz, 2006, p. 1). Empirical research has begun to reveal a range of negative mental and physical health outcomes, including burnout and its antecedents (emotional exhaustion and depersonalisation; for a review see Zapf, 2002) and psychosomatic ailments (Zapf, Voegt. Seifert.

Mertini, & Isic, 1999), which stem from undertaking emotional labour. The research examining emotional demands on teachers at the classroom, school and systemic levels has identified that these impact teachers' wellbeing, mental health, stress, burnout, job satisfaction as well as students' learning (Chan, 2006; Kyriacou, 2001).

Being a teacher involves working with energetic and unpredictable children or adolescents in sometimes unsympathetic and crowded environments (Nias, 1996), while engaging in intense, emotion-laden, personal interactions that occur at a frequency greater than most other professionals (Brotheridge & Grandey, 2002). Schools are complex emotional environments in which teachers must simultaneously self-regulate their own emotions and emotional displays, as well as the emotions of their students. Schools and classrooms are arena in which emotions are activated throughout the day. Negative emotions such as anxiety interfere with our cognitive capacity for processing information (Eysenck & Calvo, 1992), whereas positive emotions increase our capacity to generate new ideas and to handle difficulties (Frederickson, 2001). Hope, fear, joy, anxiety, anger and a host of other affective dimensions propel teachers and students in classrooms for different reasons. This affects teachers' perceptions and appraisal of students; cognitive, emotional and moral development; curriculum engagement (Frenzel, Goetz, Ludtke, Pekrun, & Sutton, 2009); and, consequently, the quality of teacher/student interactions. It is perhaps because teachers are sensitive to the impact of high levels of negative emotions on both their own motivations and their students' learning outcomes that they seek to 'down regulate' those emotions (Pekrun, Goetz, Titz, & Perry 2002; Sutton & Wheatley, 2003). Such regulation would seem to be important since students are highly attuned to their teachers' emotional expressions (Thomas & Montgomery, 1998), and report feeling more intense negative emotions in response to teacher anger than peer anger (Klingman & Zeidner, 1993), for example.

Teachers' enthusiasm and expressions of joy in their work have a powerful influence on student motivation, interest, enjoyment and produce favourable student outcomes such as feelings of competence and autonomy (see Klusmann et al., 2008; Kunter et al., 2008). Frenzel et al. (2009) have shown that positive teacher emotions, which stem from enjoyment, are coupled with 'ongoing social interactions between teacher and students in classrooms' (p. 706) that forge positive relationships founded upon teacher care, support and high expectations for student achievement. They also motivate students to be more on task and exert more effort to complete their work. As a result, these students earn higher grades, score higher on standardised tests and adjust better to school (Skinner, Wellborn, & Connell,

1990). However, suppression of negative emotions can, over time, affect teachers' wellbeing. How teachers cope with the demands of teaching will vary from person to person. Among Australian early career teachers we have identified six types of coping profiles with varying implications for career outcomes, teacher wellbeing and that of their students.

In this study we empirically investigated whether conceptually and theoretically proposed profiles of wellbeing and professional engagement might be discernible among a sample of beginning teachers. As hypothesised, distinct professional and emotional coping types were indeed identifiable, which resembled the *Good health*, *Sparing*, *Ambitious* and *Burnout* types identified in the German typological study of diverse health professionals (Kieschke & Schaarschmidt, 2008; see also Klusmann et al., 2008). We maintained the same labels for *Good health* and *Sparing*, which our beginning teacher types closely resembled, but adapted the other labels to (*healthy*) *Ambitious* and (*path to*) *Burnout* to reflect the particular characteristics of the beginning teacher sample. As a result of adding a measure of emotional exhaustion – the most apparent manifestation and a central component of burnout – we additionally identified a *Wornout* type, which was distinct from the (*path to*) *Burnout* as anticipated. As well, a new *Diligent* type was identified, likely particular to our investigation focused solely on a teacher sample rather than diverse health professionals. The two new clusters (*Diligent*  $n = 56$ , 11.1%; *Wornout*  $n = 44$ , 8.7%) were by no means negligible in terms of their representation.

As we might have reasonably anticipated, given that these were early career teachers with perhaps insufficient time in the profession to yet experience the levels of depletion associated with full-blown burnout, the (*path to*) *Burnout* type were not yet fully burned out. Yet, this type still represented 18% of the sample. Being cognisant of the early career status of these professionals, we would venture that the (*healthy*) *Ambitious* type may not have had sufficient time in the profession in which to become 'excessively ambitious' and at psychological risk, as was the case in the previous German study (Kieschke & Schaarschmidt, 2008).

Coping styles had clear implications for emotional health as measured by the DASS (depression, anxiety and stress). As expected and of high concern, the groups displaying high levels of emotional distress were the (*path to*) *Burnout* and the *Wornout*. In contrast to the *Wornout* type, the (*path to*) *Burnout* type, while exhausted, continued to exert high effort, and were engaged with and struggled to do well in their work. The *Wornout* profile appeared to have given up and disinvested from their work engagement, but both groups had low levels of subjective wellbeing and coping. were as

affected by work stressors, and were equally emotionally 'unhealthy'. The groups displaying the lowest levels of distress were the *Sparing* and *Good health*; the *Diligent* and (*healthy*) *Ambitious* were in between.

One of the main results of our study was the empirical differentiation between burned-out and wornout teachers. This extends the literature on teacher burnout and offers new directions to the study of 'at risk' teachers. The *Wornout* (type 'W') profile is probably the most worrying. Following Burke and Greenglass (1995), we can assume that they will continue to exhibit reduced work goals, lowered idealism and responsibility for work outcomes, heightened emotional detachment, work alienation and self-interest. This profile is probably the most negative and likely to become worse as the years in the job progress. Further, it is cause for concern to observe that such a profile exists even among beginning teachers, who are in the early years of their career. Taken together the *Wornout* and (*path to*) *Burnout* profiles account for 26.9% of the sample, which must be of concern to teacher educators and employing authorities alike. The *Wornout* profile have little interest in their work, appear to have given up trying, are not coping well, have low levels of professional ambition, and (like the path to Burnout type) the lowest levels of subjective wellbeing.

People who exercise a high level of commitment to their work and who eventually become exhausted and cannot continue to perform are experiencing burnout. While the (*path to*) *Burnout* type remain high on professional exertion, they are experiencing emotional exhaustion, poor coping and low subjective wellbeing. While they continue to exert energy to be able to perform, it is doubtful that they will be able to sustain this level of professional exertion in the long term. These teachers are currently on the edge and will need to find a way to cope more effectively with the rigours of the profession. Some may adapt their standards and expectations to more moderate levels, whereas others will not be able to cope, become exhausted and no longer able to perform their duties, resulting in a tempering of their professional ambition and exertion.

## IMPLICATIONS AND FUTURE DIRECTIONS

There are important lessons to be learned from this study first, for teacher education, and second, teacher employers. There needs to be attention paid to the centrality of teachers' coping, to ensure that beginning teachers are equipped in their preparatory studies with the skills and strategies to be able

to cope with the considerable demands of the work they are called upon to undertake, and find a satisfying emotional balance which ensures they can engage in the relational work that is central to teaching children and adolescents.

Teacher education programmes have almost exclusively concentrated on prototypical aspects of pedagogy and classroom management; with an emphasis on knowing *what* (content or declarative knowledge), *how* (pedagogical and procedural knowledge) and *when* (conditional knowledge). These programs have provided little, if any, guidance or instruction about how to establish, negotiate and manage relationships – skills central to the role of being a teacher, and indeed, often central to the choice of teaching as a career (Butler, 2010; Richardson & Watt, 2006, 2010; Watt & Richardson, 2007). Beginning teachers are placed in a very vulnerable position when fears, concerns and problems associated with learning to teach are exacerbated by multiple demands for which they have not been prepared. The highly situated nature of the emotional experiences of teaching and how these are constrained or supported by a school's culture is largely overlooked in teacher education.

Employing authorities need to ensure that beginning teachers are eased into the profession through appropriate workplace supports and training. Although a great deal has been done to introduce mentoring programs into schools across various Australian States and authorities, the implementation of those programs has been 'patchy', to say the very least. It would seem clear that it is high time for governments, employing authorities, politicians and the mass media to show greater understanding of what is demanded of teachers, especially beginning teachers. Repeated calls for the improvement of teacher quality will do little to address the problems being faced by teachers on a daily basis. Moreover, the literature from educational policy and leadership has increasingly recognised that teachers' interpersonal work is framed by an apparatus of management structures that monitor and assess how teaching and learning is organised and conducted, resulting in work intensification, and instability stemming from curriculum and organisational reform (see Leithwood, 2007). How these multiple stressors are handled initially, and whether novice teachers have suitable coping strategies to accommodate these competing demands, are very likely to set in train the course of teachers' long-term classroom behaviours and play a part in determining how satisfied they are with being a teacher and consequent levels of professional commitment, exertion, psychological health and wellbeing.

## ACKNOWLEDGEMENT

The FIT-Choice research program is funded by the Australian Research Council DP0666253 awarded to Richardson, Watt, & Eccles (2006–2009); and ARC DP0987614 awarded to Watt & Richardson (2009–2012).

## NOTE

1. The authors contributed equally to the chapter.

## REFERENCES

- Brotheridge, C. M., & Grandey, A. A. (2002). Emotional labour and burnout: Comparing two perspectives of 'people work'. *Journal of Vocational Behavior, 60*, 17–39.
- Brown, J., Davis, S., & Johnson, F. (2002). *Teachers on teaching – A survey of the teaching profession*. UK: Market & Opinion Research International.
- Burke, R. J., & Greenglass, E. R. (1995). A longitudinal examination of the Chermis Model of Psychological Burnout. *Social Science Medicine, 40*, 1357–1363.
- Butler, R. (2010). What do teachers want to achieve and does it matter? An achievement goal approach to teacher motivation. Teacher motivations: Extending the big theories. International Congress of Applied Psychology, Melbourne.
- Byrne, B. M. (1999). The nomological network of teacher burnout: A literature review and empirically validated model. In R. Vandenberghe & A. Michael Huberman (Eds.), *Understanding and preventing teacher burnout: A sourcebook of international research and practice* (pp. 15–37). Cambridge, UK: Cambridge University Press.
- Cano-Garcia, F. J., Padilla-Munoz, E. M., & Carrasco-Ortiz, M. A. (2005). Personality and contextual variables in teacher burnout. *Personality and Individual Differences, 38*, 929–940.
- Chan, D. W. (2006). Emotional intelligence and components of burnout among Chinese secondary school teachers in Hong Kong. *Teaching and Teacher Education, 22*, 1042–1054.
- Darling-Hammond, L. (2003). Keeping good teachers. *Educational Leadership, 60*(8), 7–13.
- Dorman, J. (2003). Testing a model for teacher burnout. *Australian Journal of Educational and Developmental Psychology, 3*, 35–47.
- Eysenck, M. W., & Calvo, M. G. (1992). Anxiety and performance: The processing efficiency theory. *Cognitive Emotion, 6*, 409–434.
- Fernet, C., Guay, F., Senécal, C., & Austin, S. (2012). Predicting intraindividual changes in teacher burnout: The role of perceived school environment and motivational factors. *Teaching and Teacher Education, 28*, 514–525.
- Frederickson, B. L. (2001). The role of positive emotions in positive psychology: The broadening-and-build theory of positive emotions. *American Psychologist, 56*, 218–226.
- Frenzel, A. C., Goetz, T. A., Lüdtke, O., Pekrun, R., & Sutton, R. E. (2009). Emotional transmission in the classroom: Exploring the relationship between teacher and student enjoyment. *Journal of Educational Psychology, 101*(3), 705–716.
- Freudenberger, H. J. (1975). The staff burnout syndrome in alternative institutions. *Psychotherapy: Theory, Research, and Practice, 12*, 35–47.
- Friedman, I. A. (1996). Multiple pathways to burnout: Cognitive and emotional scenarios in teacher burnout. *Anxiety, Stress, and Coping, 9*, 245–259.
- Goddard, R., & O'Brien, P. (2006). Work environment predictors of beginning teacher burnout. *British Educational Research Journal, 32*(6), 857–874.
- Hakanen, J. J., Bakker, A. B., & Schaufeli, W. B. (2006). Burnout and work engagement among teachers. *Journal of School Psychology, 43*, 495–513.
- de Heus, P., & Diekstra, R. F. W. (1999). Do teachers burn out more easily? A comparison of teachers with other social professions on work stress and burnout symptoms. In R. Vandenberghe & A. M. Huberman (Eds.), *Understanding and preventing teacher burnout: A sourcebook of international research and practice* (pp. 269–284). Cambridge, UK: Cambridge University Press.
- Hebert, E., & Worthy, T. (2001). Does the first year of teaching have to be a bad one? A case study of success. *Teaching and Teacher Education, 17*(8), 897–911.
- Hobfoll, S. E. (1988). *The ecology of stress*. New York, NY: Hemisphere.
- Hobfoll, S. E. (1989). Conservation of resources: A new attempt at conceptualizing stress. *American Psychologist, 44*, 513–524.
- Hodge, G., Jupp, J., & Taylor, A. (1994). Work stress, distress and burnout in music and mathematics teachers. *British Journal of Educational Psychology, 64*, 65–76.
- Ingersoll, R. M., & Smith, T. M. (2003). The wrong solution to the teacher shortage. *Educational Leadership, 60*(8), 30–33.
- Jepson, E., & Forrest, S. (2006). Individual contributory factors in teacher stress: The role of achievement striving and occupational commitment. *British Journal of Educational Psychology, 76*(1), 183–197.
- de Jesus, S. N., & Lens, W. (2005). An integrated model for the study of teacher motivation. *Applied Psychology – An International Review (Psychologie Appliquée – Revue Internationale), 54*(1), 119–134.
- Johnson, S., Cooper, C., Cartwright, S., Donald, I., Taylor, P., & Millet, C. (2005). The experience of work-related stress across occupations. *Journal of Managerial Psychology, 20*(2), 178–187.
- Keichtermans, G. (2009). Who I am in how I teach is the message. Self-understanding, vulnerability and reflection. *Teachers and Teaching: Theory into Practice, 15*, 257–272.
- Kieschke, U., & Schaarschmidt, U. (2003). Bewältigungsverhalten als eignungsrelevantes Merkmal bei Existenzgründern: Ergebnisse einer Längsschnittstudie [Coping style as an indicator of entrepreneurs' fitness: Results of a longitudinal research project]. *Zeitschrift für Personalpsychologie, 2*(3), 107–117.
- Kieschke, U., & Schaarschmidt, U. (2008). Professional commitment and health among teachers in Germany: A typological approach. *Learning and Instruction, 18*, 429–437.
- Kivimäki, M., Ferris, J. E., Head, J., Shipley, M. J., Vahtera, J., & Marmot, M. G. (2004). Organisational justice and change in justice as predictors of employee health: The Whitehall II study. *Journal of Epidemiology and Community Health, 58*, 931–937.
- Klingman, A., & Zeidner, M. (1993). School-related anger in Israeli adolescent students. *School Psychology International, 14*, 339–353.
- Klusmann, U., Kunter, M., Trautwein, U., Lüdtke, O., & Baumert, J. (2008). Teachers' occupational well-being and quality of instruction: The important role of self-regulatory patterns. *Journal of Educational Psychology, 100*(3), 702–715.
- Kovess-Masféty, V., Rios-Seidel, C., & Sevilla-Dedieu, C. (2007). Teachers' mental health and teaching levels. *Teaching and Teacher Education, 23*(7), 1177–1192.

- Kunter, M., Tsai, Y.-M., Klusmann, U., Brunner, M., Krauss, S., & Baumert, J. R. (2008). Students' and mathematics teachers' perceptions of teacher enthusiasm and instruction. *Learning and Instruction, 18*, 468-482.
- Kyriacou, C. (2001). Teacher stress: Directions for future research. *Educational Review, 53*(1), 27-35.
- Kyriacou, C., & Kunc, R. (2006). Beginning teachers' expectations of teaching. *Teaching and Teacher Education, 23*, 1246-1257.
- Leithwood, K. (2007). The emotional side of school improvement: A leadership perspective. In I. Townsend (Ed.), *International handbook of school effectiveness and improvement* (pp. 615-635). Dordrecht, The Netherlands: Springer.
- Lovibond, S. H., & Lovibond, P. F. (1995). *Manual for the depression anxiety stress scales* (2nd ed.). Sydney: Psychology Foundation. ISBN 7334-1423-0.
- Maslach, C., & Jackson, S. E. (1981). The measurement of experienced burnout. *Journal of Occupational Behavior, 2*, 99-113.
- Maslach, C., Jackson, S. E., & Leiter, M. P. (1996). *Maslach burnout inventory manual* (3rd ed.). Mountain View, CA: CPP, Inc.
- Maslach, C., Schaufeli, W., & Leiter, M. (2001). Job burnout. *Annual Review of Psychology, 52*, 397-422.
- Melnick, S. A., & Meister, D. G. (2008). A comparison of beginning and experienced teachers' concerns. *Educational Research Quarterly, 31*(3), 39-56.
- Montgomery, C., & Rupp, A. A. (2005). A meta-analysis for exploring the diverse causes and effects of stress in teachers. *Canadian Journal of Education, 28*(3), 458.
- Nias, J. (1996). Thinking about feeling: the emotions in teaching. *Cambridge Journal of Education, 26*(3), 293-306.
- OECD. (2005). *Teachers matter: Attracting, developing and retaining effective teachers*. Paris: OECD.
- OECD. (2011). *Evaluating and rewarding the quality of teachers: International practices*. Paris: OECD.
- Pekrun, R., Goetz, T., Titz, W., & Perry, R. P. (2002). Academic emotions in students' self-regulated learning and achievement: A program of qualitative and quantitative research. *Educational Psychologist, 37*(2), 91-105.
- Purcell, K., Willton, N., Davies, R., & Elias, P. (2005). *Education as a graduate career: Entry and exit from teaching as a profession*. Research Report No. 690, Department for Education and Skills, London.
- Richardson, P. W., & Watt, H. M. G. (2006). Who chooses teaching and why? Profiling characteristics and motivations across three Australian universities. *Asia-Pacific Journal of Teacher Education, 34*(1), 27-56.
- Richardson, P. W., & Watt, H. M. G. (2010). Current and future directions in teacher motivation research. In T. C. Urdan & S. A. Karabenick (Eds.), *The decade ahead: Applications and contexts of motivation and achievement* (Vol. 16B, pp. 139-173). Bingley, UK: Emerald. Chapter 5.
- Rudow, B. (1999). Stress and burnout in the teaching profession: European studies, issues, and research Perspectives. In R. Vandenberghe & A. Michael Huberman (Eds.), *Understanding and preventing teacher burnout: A sourcebook of international research and practice* (pp. 38-58). Cambridge, UK: Cambridge University Press.

- Schaarschmidt, U. (Ed.). (2004). *Halbtagsjobber? Psychische Gesundheit im Lehrberuf Analyse eines veränderungsbedürftigen Zustandes [Part-time jobber? Mental health in the teaching occupation]*. Weinheim: Beltz Wissenschaft, Deutscher Studien.
- Schaarschmidt, U., & Fischer, A. (1997). AVEEM - ein diagnostisches Instrument zur Differenzierung von Typen gesundheitsrelevanten Verhaltens und Erlebens gegenüber der Arbeit. [AVEEM - an instrument for diagnosing different types of work- and health-related behavior and experience]. *Zeitschrift für Differentielle und Diagnostische Psychologie, 18*(3), 151-163.
- Schaarschmidt, U., Kieschke, U., & Fischer, A. W. (1999). Beanspruchungsmuster im Lehrberuf [Patterns of teachers' occupational stress]. *Psychologie in Erziehung und Unterricht, 46*(4), 244-268.
- Schonfeld, I. S. (1992). A longitudinal study of occupational stressors and depressive symptoms in first-year female teachers. *Teaching and Teacher Education, 8*(2), 151-158.
- Skaalvik, E. M., & Skaalvik, S. (2007). Dimensions of teacher self-efficacy and relations with strain factors, perceived collective teacher efficacy, and teacher burnout. *Journal of Educational Psychology, 99*(3), 611-625.
- Skinner, E. A., Wellborn, J. G., & Connell, J. P. (1990). What it takes to do well in school and whether I've got it: The role of perceived control in children's engagement and school achievement. *Journal of Educational Psychology, 82*, 22-32.
- Stephenson, D. (1990). Affective consequences of teachers' psychological investment. *Journal of Educational Research, 84*(1), 53-57.
- Stoerber, J., & Renner, D. (2008). Perfectionism in school teachers: Relations with stress appraisals, coping styles, and burnout. *Anxiety, Stress, and Coping, 21*, 37-53.
- Sutton, R. E., & Wheatley, K. F. (2003). Teachers' emotions and teaching: A review of the literature and directions for future research. *Educational Psychology Review, 15*(4), 327-358.
- Thomas, J. A., & Montgomery, P. (1998). On becoming a good teacher: Reflective practice with regard to children's voices. *Journal of Teacher Education, 49*, 372-380.
- Travers, C., & Cooper, C. I. (1993). Mental health, job satisfaction, and occupational stress among UK teachers. *Work and Stress, 7*(3), 203-219.
- Travers, C. J., & Cooper, C. I. (1997). Stress in teaching. In D. Shorrocks-Taylor (Ed.), *Directions in educational psychology*. London: Whurr.
- Watt, H. M. G., & Richardson, P. W. (2007). Motivational factors influencing teaching as a career choice: Development and validation of the FIT-Choice Scale. *Journal of Experimental Education, 75*(3), 167-202.
- Wilhelm, K., Dewhurst-Savellis, J., & Parker, G. (2000). Teacher stress? An analysis of why teachers leave and why they stay. *Teachers and Teaching: Theory and Practice, 6*(3), 291-304.
- Zapf, D. (2002). Emotion work and physiological well-being: A review of the literature and some conceptual considerations. *Human Resource Management Review, 12*, 237-268.
- Zapf, D., & Holz, M. (2006). On the positive and negative effects of emotion work in organizations. *European Journal of Work and Organizational Psychology, 15*(1), 1-28.
- Zapf, D., Vogt, C., Seifert, C., Mertini, H., & Isic, A. (1999). Emotion work as a source of stress: The concept and development of an instrument. *European Journal of Work and Organizational Psychology, 8*(3), 371-400.