# Teacher Wellbeing:

A review of the literature





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#### **Professor Faye McCallum**

(The University of Adelaide)

#### **Dr Deborah Price**

(The University of South Australia)

#### **Professor Anne Graham**

(Southern Cross University)

#### **Dr Anne Morrison**

(The University of South Australia)

Corresponding Author:
Professor Faye McCallum
The University of Adelaide
+61 (0)8 8313 5692
faye.mccallum@adelaide.edu.au

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# **Executive Summary**

It is well acknowledged that teachers are the most important in-school factor contributing to student success, satisfaction and achievement, and that teacher wellbeing is deeply connected to the quality of their work (CESE, 2014). Teacher wellbeing is therefore of critical importance for the future of education.

In recognition of the importance of teacher wellbeing and its impact on teachers' work, the AISNSW Education Research Council has commissioned a multiphase research project into this area, to be conducted with teachers from the independent schools sector in NSW.

The first phase of this study is the current literature review, which aims to:

- understand how teacher wellbeing has been defined
- · identify factors that impact on teacher wellbeing
- identify initiatives that enable teacher wellbeing.

A range of quantitative and qualitative studies primarily focusing on teacher wellbeing and wellness were purposively selected for the review. Studies of student wellbeing unrelated to teacher wellbeing were excluded, as were those which focused on resilience or burnout without reference to wellbeing. The underlying rationale for this was to focus on enabling aspects of teacher wellbeing. A total of 191 Australian and international studies, covering the period from 2001-2017 were identified and analysed, with a deliberate focus on the last 5 – 10 years.

Thematic analysis of the identified literature revealed a range of issues related to teacher wellbeing. These were then grouped under the three overarching themes, namely definitions of teacher wellbeing, factors that impact on teacher wellbeing, and initiatives that enable wellbeing.

The review revealed that there have been divergent understandings of the term wellbeing in general, and teacher wellbeing in particular. To some extent, this reflects the complexity of defining teacher wellbeing, as well as its multidimensional and multifaceted nature.

# **Executive Summary**

However, the following definition is put forward, as it is considered the most relevant and suited to the purpose of this review:

Wellbeing is diverse and fluid respecting individual, family and community beliefs, values, experiences, culture, opportunities and contexts across time and change. It is something we all aim for, underpinned by positive notions, yet is unique to each of us and provides us with a sense of who we are which needs to be respected. (McCallum & Price, 2016, p. 17).

Teacher wellbeing is found to be impacted by a myriad of factors, both positive and negative — some of which are within teachers' control while others are not. Some of these significant factors are discussed in further depth in this review, namely:

- resilience and self-efficacy
- social emotional competence/emotional intelligence
- personal responses to teachers' work: burnout, fatigue, exhaustion and stress.

The review indicates that a substantial amount of the existing literature to date appears to have focused primarily on the negative influences related to teachers' work, such as work overload, or having to respond to ongoing change. In addition, a number of teacher wellbeing initiatives focus predominantly on preventing ill health. This review took a different and positive approach, by highlighting and focusing on enabling wellbeing initiatives that teachers might adopt to sustain and enhance their wellbeing, and in turn positively impact the quality of their teaching and life experiences.

The review concluded that teacher wellbeing is a complex issue, and in order to maximise the wellbeing of teachers, the adoption of a holistic approach which includes the implementation of initiatives that complement teachers' personal strategies, is suggested.

This will help to promote revitalisation, motivation, energy, and teacher self-efficacy which will then produce positive outcomes not only for the individual teachers, but also at the community level. Investment in teacher wellbeing contributes to improved health and wellbeing for teachers and students, and ultimately, to positive learning outcomes.

## Introduction

If your plan is for a year, plant rice

If your plan is for 10 years, plant trees

If your plan is for 100 years, educate children

(Confucius)

The education of children and young people is at the core of teachers' work and learner success underpins the daily effort, enthusiasm, and commitment from teachers. It is well acknowledged that teachers are the most important in-school factor contributing to student success, satisfaction and achievement. This is true for all children regardless of their circumstances, location or social status. Teacher wellbeing is deeply connected to the quality of their work (CESE, 2014), and its impact on student outcomes. Consequently ensuring teacher wellbeing is of critical importance for the future of education. Long ago Confucius identified that all teachers contribute to the education of the whole child. It is therefore critical that policymakers, employers and all stakeholders take seriously the wellbeing of all teachers.

This review delves into the existing literature examining teacher wellbeing with an aim to understand:

- how teacher wellbeing has been defined
- · factors that impact on teacher wellbeing
- initiatives that enable teacher wellbeing.

This review is the first stage of a more extensive research project into teacher wellbeing which will be conducted with teachers from the independent sector in NSW.

# Methodology

The terms teacher wellbeing and wellness were searched in three databases, including Google Scholar, Trove and Scopus. Publications resulting from these searches include journal articles, reports, books and theses. The review was conducted following a thematic approach — exploring a variety of terms related to wellbeing, such as self-efficacy, job satisfaction, organisational climate, and stress. Previously, this approach was used by Ereaut and Whiting (2008) in their review of the term wellbeing within UK educational policy documents. This suggests the validity and suitability of the approach for this review.

Quantitative and qualitative studies were purposively selected for review, according to their primary focus on teacher wellbeing and wellness. Studies of student wellbeing unrelated to teacher wellbeing were excluded, as were studies which focused on resilience or burnout without reference to wellbeing. The underlying rationale being to focus on enabling aspects of teacher wellbeing. A total of 191 Australian and international studies were analysed covering the years 2001-2017, with a deliberate focus on the last 5 – 10 years.

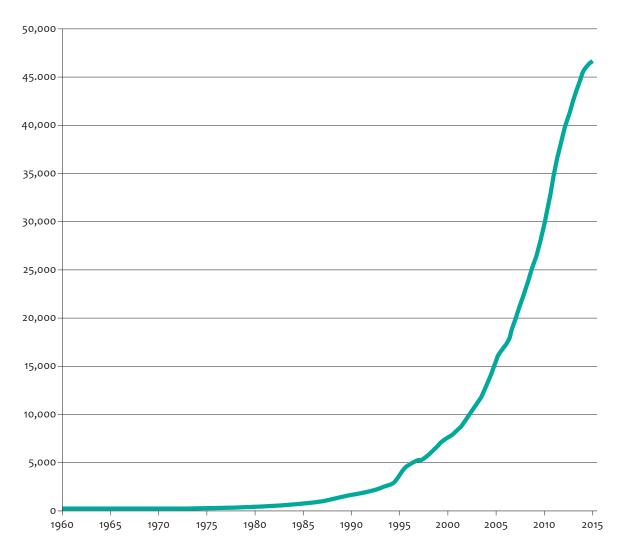
A thematic analysis identified a range of relevant issues including the complexity of defining wellbeing, the importance of teacher wellbeing, resilience and self-efficacy, social-emotional competence, personal responses to teachers' work, burnout, fatigue, exhaustion, stress, relationships with others, mindfulness interventions, positive psychology, whole school initiatives, work-life support, professional learning communities, positive school ecology, leadership, professional development, induction, and mentoring. These issues were ultimately consolidated under three overarching themes – definitions of teacher wellbeing, factors that impact on teacher wellbeing, and enabling wellbeing initiatives.

## **Section One:**

## What is Teacher Wellbeing?

#### **Defining wellbeing**

Since the 1960s, there has been a steep increase in scholarly discussions of wellbeing, as indicated in Figure 1. Despite this dramatic increase, the term wellbeing (frequently written wellbeing, or less frequently, well being) has proven difficult to define.



**Figure 1:** Number of publications since 1960 referencing the term wellbeing in the title or abstract (source: Scopus database)

One of the early influential references to wellbeing appeared in the World Health Organisation's (1947) constitution which defined health as "a state of complete physical, mental and social wellbeing and not merely the absence of disease or infirmity" (p. 1). Ereaut and Whiting (2008) refer to this definition as the medical model of wellbeing, which has since been significantly expanded to encompass economic, psychological and social dimensions.

More recent conceptualisations of wellbeing have identified two broad categories: objective and subjective wellbeing. The objective dimensions of wellbeing are generally considered external to the individual and may include economic resources (for example, income, goods), political circumstances, and health and literacy (Forgeard, Jayawickreme, Kern & Seligman, 2011). Subjective dimensions of wellbeing variously encompass factors such as happiness, emotion, engagement, purpose, life satisfaction, social relationships, competence and accomplishment. Irrespective of whether the focus is on objective or subjective wellbeing, these authors note that "the multiplicity of approaches in the study of wellbeing has given rise to blurred and overly broad definitions of wellbeing, with researchers using the construct of 'wellbeing' synonymously with 'happiness', 'quality of life', or 'life satisfaction'" (p. 81). Likewise, De Pablos-Pons, Colás-Bravo, González-Ramírez and Camacho Martínez-Vara del Rey (2013) consider that subjective wellbeing is an area of social psychology linked to happiness or satisfaction with life.

The OECD's recent report How's life? 2015: Measuring wellbeing conceptualises wellbeing as having two primary dimensions: material conditions (income and wealth, jobs and earnings, housing), and quality of life (health status, work-life balance, education and skills, social connections, civic engagement and governance, environmental quality, personal security, and subjective wellbeing) (2015, p. 22). Subjective wellbeing is further defined according to three dimensions:

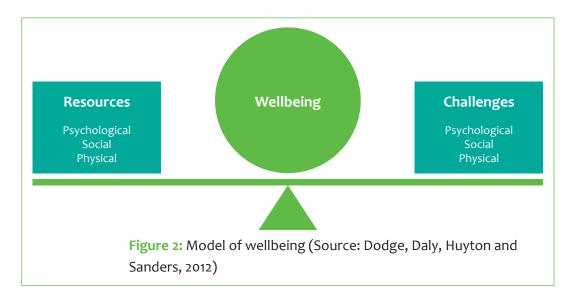
 "Life evaluation — a reflective assessment on a person's life or some specific aspect of it.

- Affect a person's feelings or emotional states, typically measured with reference to a particular point in time.
- Eudemonia a sense of meaning and purpose in life, or good psychological functioning." (OECD 2013, p. 10).

Some of the literature conceptualises wellbeing as residing entirely within the individual, rather than being objective or relating to external factors and conditions. For example, Deci and Ryan (2008, p. 1) define wellbeing as "optimal *psychological* experience and functioning" (emphasis added). For Day and Qing (2009), wellbeing is a psychological and social construct, "a dynamic state, in which the individual is able to develop their potential, work productively and creatively, build strong and positive relationships with others, and contribute to their community" (p 15).

Gillett-Swan and Sargeant (2014) conceptualise wellbeing as a process of accrual as reflected in the following definition: "an individual's capacity to manage over time, the range of inputs, both constructive and undesirable that can, in isolation, affect a person's emotional, physical and cognitive state in response to a given context" (n.p.).

Dodge, Daly, Huyton and Sanders (2012, p. 230) propose a new definition of wellbeing as "the balance point between an individual's resource pool and the challenges faced", as illustrated in Figure 2.



#### Their conceptualisation is explained as:

"... stable wellbeing (which) is when individuals have the psychological, social and physical resources they need to meet a particular psychological, social and/or physical challenge. When individuals have more challenges than resources, the see-saw dips, along with their wellbeing, and vice-versa" (p. 230).

Irrespective of the specific model advocated, Uchida, Ogihara and Fukushima (2015) caution that there are significant cultural differences in how people define wellbeing. For example, they distinguish between an East Asian view of wellbeing (derived from social harmony, such as adapting to social norms and fulfilling relational obligations) as opposed to European-American views where wellbeing is derived from individual achievement and self-esteem.

In summary, there is yet no single agreed upon definition of wellbeing. Discussions highlighting the contested nature of the term can further be found in the work of Paim (1995), Gasper (2004), McAllister (2005), or La Placa, McNaught and Knight (2013).

#### Defining teacher wellbeing

While the term wellbeing has entered educational discourses in reference to student wellbeing, and more recently in reference to teacher wellbeing, some evidence indicates that there are divergent understandings of the term, mirroring the situation beyond educational circles. In their discourse analysis of real life usages of the term wellbeing in UK educational policy documents, Ereaut and Whiting (2008) reported that while the term was ubiquitous:

different meanings are being projected by different agents and what is apparently meant by the use of the term depends on where you stand. There are few fixed points or commonalities beyond 'it's a good thing'. Effectively, wellbeing acts like a cultural mirage: it looks like a solid construct, but when we approach it, it fragments or disappears (p. 5).

A search of the literature reveals that few definitions of wellbeing are specific to teachers. For example, Aelterman, Engels, Van Petegem and Verhaeghe (2007) define teacher wellbeing as:

a positive emotional state, which is the result of harmony between the sum of specific environmental factors on the one hand, and the personal needs and expectations of teachers on the other hand (p. 286).

This positive definition has been utilised by others in their studies, for example, Bricheno, Brown, and Lubansky's (2009).

For Acton and Glasgow (2015), teacher wellbeing is defined as "an individual sense of personal professional fulfilment, satisfaction, purposefulness and happiness, constructed in a collaborative process with colleagues and students" (p. 101).

Bricheno et al. (2009, p.11) identify 12 gaps in the body of evidence relating to wellbeing of teachers, including the need to:

- 1. focus on, and be clear about, the meaning of "wellbeing"
- 2. pay more attention to the effects of workload and pupil misbehaviour on wellbeing, and of how they may be moderated
- 3. gather more evidence on "whether, and to what extent, parental behaviour impacts on teachers' wellbeing"
- 4. find out what is happening globally in relation to the emotional demands on teachers' wellbeing
- 5. investigate the "influences of school and demographic factors (such as gender, age, experience, sector) on teacher wellbeing"
- 6. explore the relationship between the nature of teachers' control over their work and how this impacts on their wellbeing
- 7. find out if and to what extent relationships with colleagues has an impact on individual teachers' wellbeing
- 8. conduct action research on "the styles of leadership and management that promotes teacher wellbeing"

- ascertain if respect and rewards for teaching should be investigated with a focus on perceptions of the profession and if societal perceptions impact on teacher wellbeing
- 10. explore the effects of gender and age on teacher wellbeing
- 11. ensure "that intervention programs are rigorously and systematically evaluated"
- 12. engage in research to investigate the impact of teacher wellbeing on student outcomes, using "validated measures of wellbeing and research designs that promise better identification of causal findings."

As pertinent as these gaps are in identifying factors related to teachers' wellbeing, a definition remains unclear. For the purposes of this literature review, the authors find the following definition of teacher wellbeing as among the most relevant given its currency and its representation of contemporary influences of an individual nature:

Wellbeing is diverse and fluid respecting individual, family and community beliefs, values, experiences, culture, opportunities and contexts across time and change. It is something we all aim for, underpinned by positive notions, yet is unique to each of us and provides us with a sense of who we are which needs to be respected (McCallum & Price, 2016, p. 17).

With this definition, the extremely personal nature of wellbeing as understood, conceptualised and embodied at the individual level is respected. The definition also reflects the proactive nature of the term, as well as its changeable nature, thereby avoiding a rigid and/or not fully inclusive definition that could result in the undermining of wellbeing for some individuals.

How we define teacher wellbeing is also influenced by contextual characteristics, for example, gender, level of schooling, career stage and subject specialisation. Some studies have taken these into account but they also point to the need for further research in this area.

Despite the lack of consensus regarding a definition of wellbeing, a considerable amount of research has been conducted in this area, as reflected in the studies discussed below.

Research has been conducted to investigate gendered experiences of teacher wellbeing. In their report on teacher wellbeing in the UK, Bricheno et al. (2009) noted that, irrespective of occupation, males generally reported lower wellbeing than females. Amongst the recommendations arising from their study, they saw the need for more research "to investigate the influences demographic factors (including gender, age, experience, and sector) have on teacher wellbeing" (p. 11). However, in a study conducted in India, no significant effect of gender on the psychological wellbeing of teachers was found (Salimirad & Srimathi, 2016).

Teacher wellbeing has been the subject of enquiry across all educational age groups. Reports relating to early childhood teacher wellbeing include Bullough, Hall-Kenyon and MacKay (2012), Hall-Kenyon, Bullough, MacKay and Marshall (2014), Wong and Zhang (2014), Jennings (2015), and Zinsser, Christensen and Torres (2016). Research on the wellbeing of primary school teachers includes that of Morgan (2012), Paterson and Grantham (2016), and Yin, Huang and Wang (2016). Secondary school teachers' wellbeing is the focus of research by Cook et al. (2017), Hobson and Maxwell (2016), Kidger et al. (2016), Mattern and Bauer (2014), Milfont, Denny, Ameratunga, Robinson and Merry (2008), Pisanti, Gagliardi, Razzino and Bertini (2003), Rasku and Kinnunen (2003), and Salter-Jones (2012).

Interest in teacher wellbeing is evidenced across all stages of the teaching career, beginning with pre-service (Le Cornu, 2009; Mansfield, Beltman, Broadley & Weatherby-Fell, 2016; McCallum & Price, 2016; Palomera, Fernández-Berrocal & Brackett, 2008; Price & McCallum, 2015; Turner & Braine 2016; Vesely, Saklofske & Nordstokke, 2014; Weatherby-Fell & Vincent, 2005) and pre-service practicum (Turner, Zanker & Braine, 2012). Interest in the wellbeing of early career teachers reflects the well-documented reality that this stage of the career trajectory is particularly significant in terms



of teacher retention. Reports on wellbeing which focus on early career teachers include Bernay (2014), Hobson and Maxwell (2016), Johnson et al. (2014), Sharplin, O'Neill and Chapman (2011), Brill and McCartney (2008), Le Cornu (2013), and Kessels (2010).

A study of 260 teachers in Flanders found that those with many years of experience had higher wellbeing scores (Van Petegem, Creemers, Rossel & Aelterman, 2005). At the other end of the career spectrum, the wellbeing of school principals was the subject of one study in the cohort (Carter, 2016). There appears to be limited research on the wellbeing of teachers in relation to the specialisations that they teach. Examples that were identified include Morgan's (2012) study of a small cohort of Australian science teachers, and a German study by Mattern and Bauer (2014) which primarily focused on mathematics teachers. Turner et al. (2012) looked at wellbeing amongst science and design and technology teacher trainees during their school placement. De Pablos-Pons et al. (2013) conducted a study with 322 teachers from non-university centres that carry out innovative experiences with ICT in four regions of Spain.

#### Why is teacher wellbeing important?

Wellbeing is of general concern to many professionals in varied contexts. However, the work of teachers is unique when compared to that of other professions, and is often subjected to many government legislative requirements and reforms. It is an everchanging landscape. In their study of teaching staff in the UK, Grenville-Cleave and Boniwell (2012) found that teachers rated their wellbeing significantly lower than other professional occupations such as health, social work, finance and human resources. The importance of wellbeing for the teaching profession is made clear by Coleman (2009) who argues that it:

hardly makes sense to tackle the emotional health of the pupils in a school without attending to the emotional health of the staff. Schools are communities containing not just children and young people, but adults as well. A moment's thought will make

it obvious that the emotional health of one half of a community will be influenced by the emotional health of the other half. If any government was serious about enhancing wellbeing in a school setting, they would pay attention to what Webb, Vulliamy, Sarja, Hämäläinen and Poikonen (2009) call "the professional learning community". It might even be argued that the quickest way to promote student wellbeing in schools would be to promote high staff morale, enhance staff awareness of emotions, and provide high quality training and support for all the adults working in the school (p. 290).

In Well teachers, well students, McCallum and Price (2010) purport a similar argument by suggesting that teachers need a wellbeing strategy in place to assure their own wellbeing for their effectiveness in the classroom. And if teachers can model positive strategies, this will have a positive influence on student wellbeing. The common view that teacher wellbeing is linked to student wellbeing (and vice versa) is empirically supported. For example, Sisask and colleagues' (2014) study reported that teachers with high wellbeing are more likely to assist children with mental health challenges. Similarly, a number of other studies conclude that the preconditions for teachers to improve the mental health of their students will be achieved by providing them with a good school environment, valuing the subjective psychological wellbeing of the teachers, and providing adequate training to fulfil their gatekeeper role (Roffey, 2012; Salter-Jones, 2012; Tyson, Roberts & Kane, 2009). These suggestions are in line with a whole school approach to mental health promotion (Sisask et al., 2014).

To put this in context, however, there are global concerns about teacher supply for a stable and effective workforce. A survey of 25 OECD countries found that about half report serious concerns about maintaining an adequate supply of good quality teachers (OECD, 2005). A shortage of teachers continues to plague the education sector in England (House of Commons, Education Committee, 2017) and similar issues are reported in the United States (Aragon, 2016;

Sutcher, Darling-Hammond & Carver-Thomas, 2016). In Australia, the situation is not as clear-cut, with some states reporting shortages in some sectors (Mason & Matas, 2015).

Regardless, there are global concerns that fewer people are considering teaching as a career option, and many of those who do qualify to teach leave the profession within a few years. This should be considered in light of recent forecasts of the increase in student numbers between 2016-2031, projected to be 255,756 students (McCrindle, 2017). If the average classroom caters for 24 students, NSW schools will need to find space and resources for approximately 710 additional classes per year over this period. Thus, the demand for teachers is likely to increase in the foreseeable future.

Retention of teachers is an issue that has been raised by policy makers and stakeholders. Literature identifies varied reasons for poor teacher retention with a link to teacher wellbeing. In the United States, 33% of teachers leave their schools in the first three years, and 46% after five years (Brill & McCartney, 2008).

While there is some localised variation in attrition rates, in general the rate of loss to the profession in many countries is around 40–50% over the five years post entry (Gallant & Riley, 2014, p. 563). As far back as 2005, it was reported that if "teachers do not experience a sense of wellbeing in their work and they feel they lack competence, this may result in high attrition rates ... and high stress levels" (Pillay, Goddard & Wilss, 2005, p.25).

Teacher stress, whether perceived or actual, is one factor that impacts on the recruitment of new teachers and the intentions of serving teachers to stay or leave the profession. Reports on teacher safety by students, and in some cases parents, have been increasingly published since Day and Qing's (2009) finding that "many teachers work in environments that are hostile to their wellbeing" (p. 16). Teacher motivation has also been linked to student achievement because "when teachers become burned

out, or worn out, their students' achievement outcomes are likely to suffer because they are more concerned with their personal survival" (Watt & Richardson, 2013, p.272).

There is a tangible link between employee wellbeing and effectiveness in the workplace. Employers now realise that promoting positive wellbeing in the workforce could lead to concrete business outcomes, including improved productivity and performance (Teacher Support Cymru, n.d.). Briner and Dewberry (2007) claim that it may also be the case that improving school performance might have a positive impact on teacher wellbeing and vice versa. It is explicitly stated that teacher wellbeing has an impact on student achievement or, at the macro level, school performance. In support of this argument, Briner and Dewberry (2007) found that 8% of the variation of SAT (Standard Assessment Test) scores in the UK were accounted for by teacher wellbeing.

Bricheno, Brown and Lubansky (2009) identified three studies (Caprara, Barbaranelli, Steca & Malone, 2006; Ostroff, 1992; Pricewaterhouse Coopers, 2007) that found possible relationships between wellbeing and school effectiveness, but noted that "because of limitations in the methodology they are not able to assign causality" (p. 55). In their report Healthy teachers, higher marks? Establishing a link between teacher health and wellbeing, and student outcomes Bajorek, Gulliford and Taskila (2014) concluded that the lack of direct evidence, and the "relatively limited research into teacher wellbeing and student educational outcomes highlights the need for further research in the area" (p. 5).

Teacher wellbeing is therefore of critical relevance for whole school wellbeing and for students, but is also relevant for financial and economic considerations. "Training teachers who then leave because their lives are unfulfilled at best and miserable at worst is not only devastating to those individuals and damaging to students, but also expensive on the public purse" (Roffey, 2012, p. 9).

#### International perspectives

Research interest into the wellbeing of teachers is evidenced around the globe. In some regions, this interest is related to specific educational policy climates. For example, in the US, a heavy investment in accountability measures and high-stakes testing appears to have influenced teacher wellbeing which has then given rise to the research interest in this area (Berryhill, Linney & Fromewick, 2009).

In the UK, a Teacher Support Network has existed since 1877 and is an independent charity aimed at understanding teacher wellbeing, its causes, consequences and improvements. Bricheno, Brown and Lubansky's (2009) Teacher wellbeing: A review of the evidence focused on intervention strategies for teachers in UK schools, specifically into mental health and stress. The Review categorised interventions to teacher wellbeing as primary (aimed to prevent work-related stress targeting the employee), secondary (minimising stress to diminish consequences), or tertiary (treating the ill effects of stress)(p.45). They found that for mental health, individual interventions were most effective, and for job-related stress, organisational interventions were best. However, they reported that teachers rarely used health services but in one Council, where a wellbeing programme was introduced, there was an 80% uptake by teachers which resulted in reducing stress-related situations (p. 46). In Wales, Scotland and Northern Ireland, teachers responded positively to a confidential helpline. Overall, the importance of support from colleagues, senior staff and headteachers in reducing stress and improving wellbeing was acknowledged.

The recently released report by the Education Committee, House of Commons, UK (2017) cites some key points in relation to the importance of teacher wellbeing and why, in the UK, there are some significant critical trends:

"Over the past six years schools have been faced with a series
of changes to curriculum, assessment and the accountability
system, as well as uncertainty about changes to school
structures. This will lead to increased workload and pressure as
schools implement changes.

- A survey carried out in 2015 showed 76% of teachers cited high workload as the most common reason for considering leaving the profession. A survey carried out by the Association for Teachers and Lecturers showed a similar statistic where "76% of respondents say they have considered leaving teaching because their workload is too high." The Government has already made steps in tackling workload issues, but the inquiry states that more needs to be done.
- Workload is not the only reason teachers appear to be leaving the profession.... overall job satisfaction was the biggest driver [for intention to leave]", as well as factors "related to whether they feel supported and valued by management.
- As reported in the Engaging teachers: NFER Analysis of Teacher Retention [National Foundation for Education Research, 2016, p.14], "it is too simplistic to focus solely on workload as the reason [...] teachers decide to leave." The analysis showed that inspection and policy change were key drivers for increased workload, which then led to poor health and feeling undervalued." (p. 15).

Globally, research reports on the perception that the teaching profession has a poor reputation and that schools lack attractiveness as a workplace. Heidmets and Liik (2014) reported that this perception exists in Estonia with an ageing teacher population, the workforce being strongly feminised, and fewer younger teachers entering the profession. However, their study found that transformational leaders (principals) shaped teachers' wellbeing and their emotional attachment to the school. It was acknowledged that financial rewards, as well as quality of relationships and management, are important for teachers to feel good in the workplace.

In Germany, Mattern and Bauer (2014) found that cognitive self-regulation in secondary mathematics teachers fosters teachers' occupational wellbeing — that is their level of emotional exhaustion and job satisfaction. This directly impacts on the quality of their work, satisfaction at work and wellbeing.



Aelterman et al.'s (2007) study of teachers in Flanders revealed that the general wellbeing of teachers is high. They found that "support plays a key role, including support by the principal, support for professional learning, and support from colleagues which is specifically related to school culture" (p. 296). In turn, this influences relationships with parents and attitudes towards innovation.

In Italy, Gozzoli, Frascaroli and D'Angelo (2015) examined the complex and challenging school world of rapid reforms, reorganisations, resource reallocations, general social and productive change, as well as internal and external demands on teachers' work. They adopted a phenomenological approach to research with 50 high school teachers, exploring their concepts of wellbeing. The authors identified these possible situations:

- 'manifested malaise' situations where the professional role of teachers feels de-valued or where there is a perception of a lack of organisational support (27% of sample)
- 'defensive' or 'in-retreat' situation where there is weak motivation despite feeling valued in the role but there is perceived loneliness in the organisation (41% of sample)
- 'generative' situation where teachers express feeling renewed motivation, of value to the professional role, and have good interpersonal bonds. This allows teachers to feel support and able to make plans individually or collectively (32% of sample) (p. 2244).

Studies of Scandinavian teachers' wellbeing reported findings consistent with other teacher populations citing that Swedish comprehensive school teachers reported elevated levels of work-related stress. A Norwegian study reported work overload, student behaviour, class sizes and collegial relationships as having negative effects on teachers' quality of life (Mykletun, 1984, cited in Burns & Machin, 2013, p. 310). Organisational change was also associated with increased exhaustion by teachers in this study. Comparisons between academically successful and less academically successful schools indicated an experience of stress associated with student achievement. They stated that when school climate is perceived

as negative, it can have adverse effects on teacher health and wellbeing, subsequently leading to negative degradation of student academic outcomes (Mykletun & Mykletun, 1999, cited in Burns & Machin, 2013, p. 310). Similar to Salimirad and Srimathi's (2016) study in India, the study by Burns and Machin (2013) in Scandinavia identified that "personality [is]... associated with employee wellbeing, and organisational climate [is] most strongly related to school morale and distress" (p. 309). In their study, teachers in rural schools reported a more positive organisational climate and better wellbeing.

In the US, Cook et al. (2017) acknowledge a plethora of research which indicates that teaching is a challenging profession and that teacher stress and burnout can undermine teacher effectiveness. They evaluated the ACHIEVER Resilience Curriculum which aims to promote teacher wellbeing and found that participants in the program experienced better outcomes, such as having improved teaching self-efficacy and less job-related stress. Their findings suggest that interventions should occur in teacher preparation and in ongoing professional learning that targets teacher wellbeing. Berryhill et al. (2009) undertook a study to find out the effect of accountability policies on teachers' wellbeing. Elementary teachers in this study reported that a lack of policy support was associated with teachers' emotional exhaustion via the mediators of role conflict and low self-efficacy (p. 8). Sutcher et al. (2016) conducted an extensive study throughout the US to determine teacher supply, demands and shortages. A similar study was also conducted by Aragon (2016) on teacher shortages in Denver. Varied reasons were provided for projected supply needs but interestingly, the subject of teacher wellbeing was not mentioned despite high teacher attrition.

In China, Zhu, Devos and Li (2011) measured teacher organisational commitment to wellbeing outcomes of school culture, and a recent study by Yin et al. (2016) examined the emotional nature of teachers' work and how detrimental this is to one's wellbeing. Yin and colleagues concluded that trust in colleagues was identified to

be beneficial to wellbeing, and teachers who used more reappraisal were more likely to be psychologically healthier compared to those who adopted suppression. In this study, reappraisal is defined as "an antecedent-focused emotion regulation that "involves construing a potentially emotional-eliciting situation in non-emotional terms,"" for example "When I want to feel more positive emotions (such as joy and amusement), I change what I'm thinking about." Suppression is defined as a "response-focused emotion regulation that involves inhibiting ongoing emotional expressive behaviour," for example "I control my emotions by not expressing them" (pp. 4-7).

Improving school environment and health protection of teachers was suggested as key to addressing the emotional nature of teachers' work. The researchers followed Seligman's (2011) approaches to research on positive health, and recommended three strategies for teachers: raise awareness amongst teachers of the emotional demands of the job; instil a wellbeing focus in organisations that is indicative of a trusting school environment; and emotional regulation should be strengthened in teacher education and professional learning (p. 12). In Hong Kong, Wong and Zhang (2014) explored the perception that kindergarten teachers across cultures experience high stress that affects their wellbeing by focusing on the relationship between kindergarten teachers' wellbeing, perceived school culture and personality type. Consistent with other studies, results indicated that teachers who perceived their school culture positively had higher levels of job satisfaction and self-esteem and fewer mental health complaints.

In South Africa, Daniels and Strauss (2010) mirror the sentiments of other countries that teaching is a challenging profession and go on to state that certain factors (such as work environment, unreasonable expectations of school communities, socio-economic challenges of society) have the potential to influence emotional illness amongst teachers. They say that work-linked stressors can influence the wellbeing of teachers and organisations. Their

study looked at the personal construction of teachers' emotional wellbeing in the Western Cape Province of South Africa and the teachers in the study reported that the students, school administrators, parents and the department all influenced their feelings of emotional vulnerability. As a result, if their self-worth was being eroded in the workplace, their mental state would impact negatively on the quality of their work, and they reported a decrease in their productivity, work ethic, and overwhelming negative emotions. Daniels and Strauss suggest that schools as workplaces are "in need of transformation if teachers are ... to do their work effectively" (2010, p.1385). Similarly, a study conducted in the Eastern Cape of South Africa with primary and high school teachers by Vazi et al. (2013) identified stress amongst teachers and that psychological factors contributed to this, specifically negative affect and role problems. Interestingly they also found that psychological wellbeing had a strong inverse relationship with stress, thus intervention should focus on improving psychological wellbeing and reducing negative effects that contribute to stress.

Limited research into teacher wellbeing and risk factors has been conducted in sub-Saharan Africa. Wolf, Torrente, McCoy, Rasheed and Aber (2015) investigated cumulative risk and teacher wellbeing in the Democratic Republic of the Congo. They report that less experienced teachers experience the highest levels of burnout compared to more experienced teachers.

In Iran, Mehdinezhad (2012) found that there was relatively high positive correlation between teachers' wellbeing, teacher efficacy and demographic factors. Dakduki (2015) studied the ecological wellbeing and job satisfaction of primary school teachers in Palestinians Arab-Israelis, Palestinians in the West Bank and Palestinians in the Gaza Strip. The work formulated a validation tool named the "Global Well-being Assessment Scale."



#### Measuring teacher wellbeing

A number of indexes and approaches have been developed to measure wellbeing (see, for example, Van Horn, Taris, Schaufeli & Schreurs, 2004; Grenville-Cleave & Boniwell, 2012; Kern, Waters, Adler & White, 2014). One approach is to measure or correlate particular dimensions of teacher wellbeing using existing indexes. For example, researchers in New Zealand used the Copenhagen Burnout Inventory and the five-item World Health Organisation Wellbeing Index (WHO-5) to measure burnout and wellbeing in their sample of secondary school teachers (Milfont et al., 2008).

The measurement of teacher wellbeing, irrespective of the population, is a complex and even contentious issue. This is hardly surprising, given that to date there is no stable and uncontested definition of wellbeing. Garrick et al. (2014) claim their work is the only published research to have performed a large-scale, multiple-state assessment of risk for psychological injury in Australian teachers, and the findings raise urgent concern for the psychological wellbeing of our teaching workforce.

Articles on the complexities of measuring wellbeing (irrespective of the population) include but are not limited to that of Drabsch (2012), Forgeard et al. (2011), OECD (2015), Schimmack (2009), King, Reno and Nova (2014), Tomyn, Tyszkiewicz and Cummins (2013), and Veenhoven (2004).

## **Section Two:**

## Factors that Impact on Teacher Wellbeing

In their discussion of the factors that impact on teacher wellbeing, Acton and Glasgow (2015) distinguish between individual, relational and external factors.

However, a more holistic approach to this can be found in Price and McCallum's (2015) article where Bronfrenbrenner's (1979) ecological model was applied. The five systems of the ecological model were used as a framework to explore factors that impact on teachers' wellbeing. The first system, the microsystem, refers specifically to the individual teacher and their relationship with their classroom and school environment and the many factors that influence them. The evolving interaction between the individual (teacher) and their environment is influenced by (teacher) perceptions, capacities and the way they deal with the environment (Bronfenbrenner, 1979). Whilst the school environment is central to teacher's wellbeing, contexts of family, friends, networks (the mesosystem system) as well as wider organisational, system, societal, environmental and cultural contexts (the exosystem level) interact on the teacher with varying effects. System and societal beliefs, values and legislative influences (the macrosystem level) increasingly impact on teachers' wellbeing. And finally, the timing of events, decisions and actions (the chronosystem level) may play a pivotal role in influencing teacher wellbeing. This nested structure of Bronfenbrenner's ecological model provides a lens to identify teacher perceptions of key themes of the environmental interconnectedness with an individual teacher's wellbeing. Teachers operate and interact in numerous microsystems including the school environment, home, community groups, friendships and so forth. A complex interplay across these ecological systems was identified.

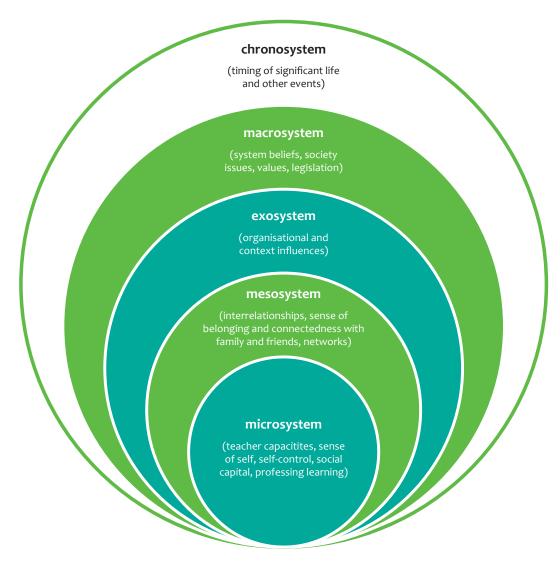


Figure 3: Bronfenbrenner's (1979) ecological system helped to identify key themes

As discussed by McCallum and colleagues (see, for example, McCallum & Price, 2016; Price & McCallum, 2015; Spilt, Koomen & Thijs, 2011), individuals have responsibility for their own wellbeing. However, a myriad of factors on a daily, weekly or monthly basis can have a deleterious impact on one's wellbeing, some within one's control and some not. Factors can also accumulate over lengthy periods of time before physical and/or mental indicators are observed. Some of these significant factors identified in the literature are discussed below.

#### **Resilience and self-efficacy**

Johnson et al. (2014) explain resilience as "positive adaptation despite adversity" (p. 532). They go on to explain that this is not that helpful for the teaching profession and subsequently proposed a useful framework that outlines five themes:

- "Policies and practices
- Teachers' work
- School culture
- Relationships
- Teacher identity." (p. 537)

However, Margolis, Hodge and Alexandrou (2014) caution that resilience "frequently masquerades as a set of coping mechanisms to promote teacher wellbeing, when it primarily benefits educational institutions at the expense of the individual teacher, leading to unsustainable professional circumstances" (p. 395).

Teacher self-efficacy involves teachers' self-judgments about their ability to affect student outcomes, especially for those students who appear unmotivated or difficult to teach (Ross, Romer & Horner, 2012). Teachers with high self-efficacy feel that they can be effective with students even in the face of challenging contexts. Teacher efficacy involves not only personal skills and competencies, but how contextual factors, such as resources, affect effective teaching and student support. For example, when the school context does not support teachers' efforts to effectively manage the learning environment of their students, this can result in lower student academic engagement and more problem behaviours. On the other hand, "teachers' sense of self-efficacy has been found to positively relate to teachers' instructional behaviour and student outcomes" (Armor et al., 1976, cited in Ross et al., 2012, p.2).

Grenville-Cleave and Boniwell's (2012) study revealed that teachers' perceived control and wellbeing were significantly lower than those of non-teachers. Four themes related to control were identified,

including autonomy, authenticity, connection to others and resilience. Given the fast pace of UK education reform in recent years, the authors concluded that "at least some of the basic psychological needs of teachers are not currently being met, in particular their need for autonomy, relatedness and competence" (p. 5). This has impact on teacher self-efficacy.

Teacher resilience and self-efficacy are explored further in research conducted by Hills and Robinson (2010), Mansfield, Beltman, Price and McConney (2012), Pretsch, Flunger and Schmitt (2012), and Buchanan et al. (2013).

#### Social-emotional competence/emotional intelligence

"Social and emotional learning is a well-researched field which aims to equip individuals with the social and emotional skills, knowledge and dispositions to operate and contribute productively to the educational setting and broader societal context" (McCallum & Price 2016, p. 12). Jennings and Greenberg (2009) propose a model of the prosocial classroom which highlights the importance of teachers' social and emotional competence and wellbeing in the development and maintenance of supportive teacher-student relationships, effective classroom management, and successful social and emotional learning program implementation. This model proposes that these factors contribute to creating a classroom climate that is more conducive to learning and that promotes positive developmental outcomes among students. Focusing on the positive rather than the deficit, their model sets out to explain how deficits in teacher social-emotional competence and wellbeing may provoke a "burnout cascade" that may have devastating effects on classroom relationships, management, and climate (p. 491). In a similar vein, Palomera et al. (2008) seek to demonstrate the need for developing emotional competencies in teaching in order to enhance wellbeing and job performance.

We know that teaching is a profession of high occupational stress and emotional labour that can potentially result in job dissatisfaction, mental health problems, and leaving the profession.

"Emotional intelligence (EI) encompasses an array of emotional competencies that facilitate the identification, processing, and regulation of emotion and may enhance successful stress management, as well as augmentation of teacher wellbeing and classroom performance" (Vesely, Saklofske & Leschied, 2013, p.81). Vesely et al.'s research drew upon the notion that emotional intelligence can be developed through training which suggests that wellbeing variables can be positively impacted.

# Personal responses to teachers' work: Burnout, fatigue, exhaustion, stress

A plethora of studies have identified that teaching is one of the most stressful professions (Brown, 2012; De Nobile, 2016; Falecki, 2015; Griva & Joekes, 2003; Kelly & Colquhoun, 2003; Naghieh, Montgomery, Bonell, Thompson & Aber, 2015; Pisanti et al., 2003; Vazi et al., 2013; von der Empse, Pendergast, Segool, Saeki & Ryan, 2016). It is, however, not the intention of this report to discuss this literature in depth. Curry and O'Brien's (2012) study sums up the sentiment of these issues and reinforces that teachers are faced daily with both work-related and institutional stress factors. Some common educational stressors they identify in the research include:

- schools and school systems becoming increasingly more bureaucratic
- greater service delivery demands in the form of heavy with fewer resources
- expectations on teachers to manage difficult student behaviour including misconduct, violence, and lack of student motivation
- a lack of planning time
- an increased emphasis on accountability measures to support effectiveness
- the exclusion of teachers from policy-making procedures (p.178).

Global stressors have also impacted teachers and school systems. Examples include terrorist attacks, natural disasters, the growing disparity in socioeconomic strata, the changing demographics of

population, and legal mandates or federal policy that influence the lives of students and classroom teaching protocol. "Therefore, political, social, and systemic changes may also contribute to increased levels of stress experienced by teachers in and out of work" (Curry & O'Brien, 2012, p. 179).

Curry and O'Brien (2012) declare that the stress experienced by teachers may result in eventual burnout if not addressed. Burnout "is characterized by emotional fatigue, disengagement, irritability, and apathy resulting from the work environment" (Curry & O'Brien, 2012, citing Butler & Constantine, 2005, p. 55). Furthermore, according to Maslach and Leiter (1997), burnout is the "index of the dislocation between what people are and what they have to do. It represents an erosion in values, dignity, spirit, and will" (p. 17). Other studies have identified similar findings (see, for example, Bermejo-Toro, Prieto-Ursúa & Hernández, 2016; Brown, 2012; Curry & O'Brien, 2012; Milfont et al., 2008; Parker & Martin, 2012; Pillay et al., 2005; Siu, Cooper & Phillips, 2014; Wolf et al., 2015). Evidence indicates that teacher stress and burnout contribute to a high attrition rate in the teaching profession (Curry & O'Brien, 2012; Hartney, 2016).

Hartney's (2016) work focused on how to enhance teaching quality and effectiveness by providing teachers with professional learning in stress management, specific to the stressors of teaching. She found existing research that clearly identified key stressors for teachers, and evidence-based stress management approaches that have been shown to be effective in mitigating teacher stress and improving teaching quality. Newly appointed teachers to rural areas where large proportions of Indigenous students attend experience heightened levels of stress and burnout. Sharplin et al. (2011) studied 29 teachers in remote Western Australia and reported that all participants articulated experiences of stress but had developed coping strategies, namely, those of a direct-action nature; of a palliative kind; or ones where avoidance was used.

Kidger et al.'s (2016) UK study noted that "teaching professionals have a higher prevalence of self-reported stress, anxiety and distress caused or made worse by work" (p. 76). Their paper examined self-reported (mental) wellbeing and depression and associated risk factors among 555 secondary school teachers. The authors noted that while earlier studies had included measures of mental disorder, they had not included measures of mental wellbeing. They examined individual and school-level factors associated with poor wellbeing and high depression among teachers. Their analysis suggested that teachers are at risk of poor mental health, a finding reported in other studies. More than twice as many of the teachers in the sample had moderate to severe depressive symptoms, compared to reports of general working populations in Germany and the US. The authors concluded that "feeling stressed or dissatisfied at work is associated with poorer wellbeing and higher depressive symptoms among teachers" (p. 81). Thus, "fatigue generated by unaudited human resource expectations eventually creates serious wellbeing issues among teachers. Workload pressures in the form of demands for improved outcomes to support the policy initiatives increase. Personal stress levels build up to higher and higher levels. While many teachers may appear to be coping, some teachers just reach a point where they no longer can deal with the pressure, and therefore the quality of their working experience spirals downwards" (Fetherston & Lummis, 2012, p. 12).

#### **Relational factors**

Relational factors that have been identified in the literature as inhibiting teacher wellbeing include student misbehaviour, issues with parents, support or lack thereof from management and leadership, and challenging situations that arise with colleagues. Ross et al. (2012) report that teachers experience high levels of accountability within school contexts. Citing the research they note that teachers experience a "multitude of stressors ranging from



student discipline problems, to poor working conditions and lack of emotional support — all of which have been linked to teacher burnout and, in many cases, teacher turnover" (p. 1). Others report on the emotional nature of teachers' work and the effect this has on their wellbeing. Negative teacher judgments about student behaviour and other teaching tasks may contribute to teachers' repeated experiences of unpleasant emotions, eventually leading to burnout (Chang, 2009).

In contrast, positive relationships with students, parents, colleagues and leadership can have an affirmative influence on teachers' sense of wellbeing and this is an area worthy of further research. A positive sense of wellbeing does indeed contribute to work satisfaction and productivity, and most importantly, teachers' positive influence on their student's wellbeing and academic achievement. One such study focused on how teacher-child relationships positively impact on the personal and professional wellbeing of teachers. Spilt et al. (2011) note that more research is needed in this area. Citing what research has been done, they note that the "interpersonal relationships between teachers and students have been largely ignored as a factor of significance to teacher wellbeing" (p.458). The work of Spilt et al. was based on theories of interpersonal relationships and they suggested that "teachers have a basic need for relatedness with the students in their class" (p.457). The article "discussed that teachers internalize experiences with students in representational models of relationships that guide emotional responses in daily interactions with students and change teacher wellbeing in the long run".

## Factors that Impact on Teacher Wellbeing

### **Final thoughts**

Most studies of factors that impact on teacher wellbeing have focused on teacher burnout and stress. They state that the study of teacher wellbeing is important because it relates to the understanding of careers in teaching, and helps focus on fostering school contexts that would enhance commitment to the job and reduce teacher attrition rate. Student-teacher relationships afford teachers with internal rewards and give meaning to their work. It is well known that when teachers are asked about their chosen profession, they often state that they love their work because of the contribution they can make to children, their liking of children, and the opportunity to help children to succeed and make a difference in the lives of children, be it socially, emotionally or cognitively.

# **Section Three:**

### **Enabling Wellbeing Initiatives**

There has been a recent increase in educational discourse and research agendas across educational stakeholders, higher education providers and policy makers on teacher wellbeing. Across the globe, increasing evidence reflects that teacher stress is high, student learning is becoming increasingly complex, societal expectations of education are expanding, and teachers are becoming tired, frustrated and burnt out. Subsequently, recent emphasis and initiatives have emerged with an explicit focus on teacher wellbeing. Whilst some teacher wellbeing initiatives focus predominantly on preventing ill health, the focus of this literature review is to highlight enabling wellbeing initiatives across individual, relational and external spheres which contribute to sustained quality teaching and life experiences.

### Individual teacher wellbeing strategies

Individual teachers' personal qualities and capabilities have been found to contribute to promoting teacher wellbeing. Such qualities and capabilities may include aptitudes, beliefs, decision making, self-belief, resilience, and flexibility.

Evidence indicates that successful teacher wellbeing interventions include:

- reflection strategies for insight into professional practice
- mindfulness training to manage stress
- emotional management strategies
- coaching psychology to build learning communities
- growth mindset approaches to solving problems
- self-care practices to restore when needed
- celebrate achievements and success to feel valued.

#### Mindfulness interventions and research

In recent years, mindfulness training has been introduced to address both student and teacher wellbeing. Mindfulness training aims to target attention and emotion processing (Bishop et al., 2004, cited

in Flook, Goldberg, Pinger, Bonus & Davidson, 2013), and has been shown to address stress and anxiety as well as promoting empathy, prosocial skills, attentiveness, sensory perceptions and other psychological and physiological benefits. "Mindfulness is described as paying attention in the present moment, on purpose, and without judgment" (Kabat-Zinn, 1994, cited in Flook et al., 2013, p. 183). Flook et al. (2013) describe how "a mindful approach to stress may involve noticing body sensations, observing thoughts, and emotions related to stress and practicing self-compassion" (p.183). Whilst there are limited studies evaluating the effectiveness of mindfulness, Hwang, Bartlett, Greben and Hand's (2017) "systemic review highlight[s] the potential of mindfulness-based interventions for enhancing wellbeing and performance of in-service teachers" (p.41). Further mindfulness initiatives can be found in the following sources: Bernay (2014), Cook et al. (2017), Harris, Jennings, Katz, Abenavoli and Greenberg (2016), Mazza-Davies (2015), Schussler, Jennings, Sharp and Frank (2016), and Skinner and Beers (2016).

Gibbs and Miller's (2014) understanding of teachers' attributions and efficacy beliefs provide the foundations for work to support teachers. They suggest that colleagues and school leadership play a significant role in supporting teachers' beliefs in their efficacy in managing children's behaviour. Given the increasing challenging behaviours experienced by teachers, Gibbs and Miller describe that teacher efficacy may reduce as a consequence. Therefore, "skillful and discrete individual work with that teacher may help her to reexperience herself as effective and, thereby, regain her belief in her own efficacy as a successful classroom manager" (2014, p.616).

#### Positive psychology approaches

Seligman's (2011) work in positive psychology has been well documented and promoted across the schooling sector. Kern et al. (2014) drew on this work and conducted a pilot evaluation of employee wellbeing using Seligman's (2011) multidimensional PERMA (Positive Emotion, Engagement, Relationships, Meaning, and Accomplishment) model of flourishing. Kern and colleagues

"analyzed associations between multiple aspects of employee wellbeing and three outcomes, including physical health, life satisfaction, and professional thriving" (p. 500). This work is of interest, as it reinforces that the study of teacher wellbeing from a positive psychology standpoint will add to the literature to promote positive states (such as increasing dimensions within the PERMA model) rather than the traditional literature that reports on ameliorating negative states. The results of their study found that "when teachers are doing well across multiple wellbeing domains, they are also more committed to the school, and more satisfied with their health, life and jobs" (p. 507). However, they raise a very important question for schools to consider: How can staff wellbeing be cultivated and supported?

#### Self-help

Glasgow's (2016) book Teach, love, life: From stress to success. A practical guide to teacher wellbeing discusses how teachers can juggle the ever-increasing workload and high expectations with ways to reduce stress, save time and achieve teaching goals. She suggests four self-help strategies:

- 1. sleep get at least 8 hours a night
- 2. exercise and eat regular meals. 60 minutes of exercise (i.e. walking) three times a week is enough to release stress
- share lesson plans, marking, and reporting with other teachers.
   And, delegate at least one household chore to another family member
- 4. build in time for relaxation, hobbies, and meditation (p. 31).

Ferguson (2008) strongly advocates for goal setting, in personal and work domains, and stresses the importance of achieving a work-life balance. As earlier mooted, teacher wellbeing is primarily the individual teachers' responsibility but we also suggest that optimum teacher wellbeing cannot be achieved alone and it is a whole

school approach that achieves sustainable wellbeing. Clandinin and colleagues (2015) explored issues pertaining to early career teacher retention and wellbeing in Alberta, Canada, and identified seven themes related to the attrition of this group:

- the need for support
- 2. identity and belonging
- tensions about contracts and the casualisation of the teaching workforce
- 4. new teachers "will do anything"
- 5. balancing composing a life: working hours
- 6. the struggle to not allow teaching to consume them
- 7. can I keep doing this? Is this teaching? (p. 1).

"The results of the study prompted questions about how beginning teachers might be sustained by considering each person's storied life, as well as about how teachers might be sustained on both their personal and professional knowledge landscapes" (p. 1).

#### Resilience

Explicit initiatives to advance teacher resilience have addressed the complex nature of teachers' work and interactions. Equipping teachers with adaptability to be able to successfully respond to complex experiences as coined by Masten, Best and Garmezy (1990) has become a fundamental approach with both student and teacher wellbeing. Instilling resilience from the initial teacher education phase has been prioritised (Le Cornu, 2009). This literature review presents challenges for individuals, communities and systems to go beyond resilience to advancing empowered educators through developing innovative and engaging pedagogical practice.

### Empowering and engaging pedagogical practice

For teachers to proactively and positively engage, the education community needs to provide not only emotional support but a collaborative professional community that takes shared responsibility for students' learning and growth, as well as the development of the whole school community in socially challenging situations. Soini, Pyhältö and Pietarinen (2010) examined initiatives that support teachers to develop empowering and engaging pedagogical practice. Their studies in Finland highlight the effectiveness of approaches that promote the construction of socio-psychological wellbeing for members addressing relatedness, competence, and autonomy. "Teachers' sense of engagement and empowerment in their work are regulated by their experienced professional relationships (including relationships with pupils), belonging to the professional community, professional self-efficacy and perceived control and agency over one's professional action" (p. 737). Advancing empowering and engaging pedagogical practice is argued to be successful when it entails scaffolding ongoing cycles of positive learning experiences.

#### Application of technologies

The rapid expansion of technologies has arguably played a role both in reducing and increasing teacher workload. Approaches which promote the productive use of technologies to enhance wellbeing have begun to emerge. For example, Mayhills (2016) "hypothesises that teachers' use of educational technology can lead to improvements in the quality of reflective practice and for 'doing the work' of teaching itself" (p. 69). Additionally, initiatives that use technology as an enabler to further support wellbeing, relationships and health, rather than focusing on negative impacts of social media and online platforms contributes not only to individual wellbeing, but also positive school community and school climate (Spears, 2016). National initiatives such as the National Safe Schools Framework (2010) and Safe Schools Hub (see, Taddeo et al., 2015) have contributed to positive education in relation to not just the physical school environment but also the online environment.

Therefore, teacher wellbeing initiatives are beginning to traverse across face to face and online environments with professional learning which explicitly address teacher wellbeing.

#### Whole school teacher wellbeing programs and initiatives

Evidence indicates that employers who commit to investing in their school workforce in order to promote teacher health and wellbeing bring about significant benefits not only for teacher wellbeing and productivity, but also student wellbeing and achievement. Cenkseven-Onder and Sari's (2009) study in Turkey suggested that in-service education programs about interpersonal relationships and coping strategies for stress should be applied for teachers and administrators. As a result, the quality of life in schools should be increased. There are many broad studies of whole-school programs and initiatives which include explicit individual teacher self-regulation and aptitude development, team and group initiatives as well as whole school community approaches. However, it is "suggested that the number of both descriptive and predictive studies should be increased on the topic" (2009, p. 1223).

Naghieh et al. (2015) argue that initiatives addressing the wellbeing of teachers are directed more towards the individual and therefore do not tackle the causes of stress in the workplace. Instead they suggest that organisational-level interventions provide potential avenues for proactive approaches to teacher wellbeing.

#### Work-life Support Well-being Programme

Since 2001, over 300 schools in the UK have participated in a Well-Being Programme as a proactive approach to promote the health and wellbeing of teachers. A report of 5 case studies described their approach as:

- "Helping schools develop and sustain a healthy, supportive working environment that brings out the best in people
- Enabling individuals to manage proactively their own wellbeing and personal effectiveness



- Developing a solutions-focused culture that engages everyone in positive change
- Facilitating colleagues at vulnerable times to access early and appropriate support
- Providing a means of sharing best practice across schools" (Worklife Support, 2010, p.6).

Management Standards for work related stress were developed by the Health Safety Executive (HSE) "to help employers meet their duty of care by promoting organisational and individual health and wellbeing" (Worklife Support, 2010, p.4). These Standards cover the primary sources of stress at work: "demands, control, relationships, change, role and support" (p.4). Surveys were used to identify strengths, achievements and areas for development across these six areas. Teacher responses informed team planning including developing wellbeing action plans. Continuous review and development processes enabled "deep, long-term changes in school culture and ethos rather than a 'one- off' fix" (Worklife Support, 2010, p.7). Evidence of benefits ranged across participating sites and included teachers feeling a greater sense of value, increased job satisfaction, reduction in perceived work overload, less recorded sick days, and an increase in student achievement data (p.5).

#### Professional learning communities

Teacher engagement in professional learning communities (PLCs) has been argued to be highly effective in supporting changes in teacher beliefs and practices. It is through ongoing professional learning in a supportive context, and genuinely engaging and connecting with peers beyond team work that professional reinvigoration and teacher wellbeing can be enhanced (Owen, 2016).

PLCs provide scope for "challenging ideas to increase potential for success, gaining greater accomplishment through joint work and nurturing positive emotion and sharing of good feelings" (Owen, 2016, p.217). This is further supported within the Finland context whereby "the teacher community provides not only emotional

support but a collaborative professional community that takes shared responsibility for pupils' learning and growth as well as development of the whole school community" (Soini et al., 2010, p. 737). Webb et al. (2009) reinforce the benefits of PLCs in promoting teacher wellbeing and identify the "centrality of relationships and emotions to the atmosphere and stability of PLCs" (p.419). They continue by advising on awareness of cultural and contextual influences on the effectiveness of PLCs and suggest that democratic and equitable school climate afford greater opportunities to identify school limitations and to determine creative ways forward (Webb et al., 2009, p.420).

Mulford (2011) promotes the benefits of communities of professional learners and has found similarities between Australian and international research on teacher and school leader quality and sustainability, and the policies and practices in Indigenous education that recognises the importance of:

- "self-determination
- increased and sustained individual and collective capacity building to provide knowledge, skills and attitudes that enable school communities to create their own futures
- education practices that are culturally relevant and context specific
- working together through partnerships, networks and shared leadership" (p. 1).

Mulford (2011) suggests that cultivating professional learning communities is made easier by having appropriate leadership and is a developmental process involving:

- 1. the establishment of a community that has a people agenda rather than an operational one
- developing a community of professionals where the sharing of norms and values exists and diversity is respected
- 3. building capacity for change where learning comes from an evidence base (p. 3).

### Positive school ecology and school climate

Whole school community approaches to promoting teacher wellbeing can draw upon Bronfenbrenner's (1992) ecological systems model. By utilising a social ecological perspective schools can capture the intrapersonal, environmental, behavioural and political domains that impact educators. This can enable school communities to consider the environments in which they operate, namely the natural/physical, information, social, and cultural environments of the whole school system (McCallum & Price, 2016; Price & McCallum, 2015). These ecological influences directly link to establishing positive school climate which Cohen, McCabe, Michelli, and Pickeral (2009) define as "the quality and character of school life" (p. 182). As Bosworth and Judkins (2014) describe "safe, caring, participatory, and responsive school climates foster attachment and bonding to school" (p.301) which is inclusive of all school community members, staff, students and parents/carers.

Cohen, Pickeral and McCloskey (2009) reinforce the evidence of positive school climate and teacher retention and suggest in the learning analytics and accountability era that whole school approaches to school climate gather "data as a complementary form of assessment, one that not only measures learning but also supports it. Schools can use climate data to promote meaningful staff, family, and student engagement" (p.45). Whole school programs which aim to promote student wellbeing appear to have interconnected impacts on teacher and whole school community wellbeing and school climate (Price, Green & Manuel, under review).

#### Role of leadership

Emerging research explores the relationship between school leadership and teacher wellbeing. Areas of significant focus include school culture, instructional leadership, support for new teachers, mentor selection, and flexibility to meet school needs (Long et al. 2012). Challenges to the effectiveness of leadership in addressing these factors include time, financial restraints, the substantial

number of educational priorities for which they were responsible, as well as issues of distance in geographically larger jurisdictions (Brock & Chaitlin, 2008, cited in Long et al., 2012, p.14). Principals were identified as potentially playing a considerable influence in the wellbeing of teachers, particularly induction of early career teachers, school culture, instructional leadership and prioritisation of meeting school needs (Brock & Chaitlin, 2008, cited in Long et al., 2012, p. 383).

Further literature related to the important role of leadership on teacher wellbeing includes the work of Konu, Viitanen and Lintonen (2010), Lagrosen and Lagrosen (2012), Laine, Saaranen, Ryhänen and Tossavainen (2017), as well as Heidmets and Liik (2014). Heidmets and Liik's work is significant, finding that "the more transformational leadership style prevails over a transactional leadership style, the stronger affective and cognitive identification with their school teachers perceive," and reported levels of teachers' job insecurity, burnout or considerations for leaving their school were also lower (p. 40).

#### Early Career Teacher Transition, Induction and Mentoring

Proactive teacher wellbeing initiatives have been recently prioritised to support teachers as they transition from initial teacher education to the workplace. Transition is identified as a global concern for early career teachers. Kessels (2010) clarifies this by reminding us that a few years ago a friendly welcome to a school when appointed sufficed, but it appears much more complex now. His extensive study conducted in Norway reports on the value of formal induction programs for beginning teachers that continue past the first year in the workforce. In Australia, Johnson et al. (2010) identify the supportive conditions required across the domains of relationships, school culture, teacher identity, teachers' work and system policies and practices in supporting early career teacher resilience. Support for emerging and transitioning teachers which enable them to share and actively listen to others' perspectives is integral to building ongoing networks of support for practice (Le Cornu, 2009).

Long et al. (2012) explicitly explore the need for effective induction and mentoring of early career teachers by adapting Wood and Stanulis's (2009) criteria of quality induction involving: educated mentors; reflective inquiry and teaching processes; systemic and structured observation; formative teacher assessment; administrators' involvement; and school culture supports. The authors cautioned that mentor initiatives need to be well planned in a formal sense, with choice of mentor/mentee by those directly involved. Considerable literature surrounds effectiveness of mentor relationships and factors including proximity between mentor/ mentee in the physical geography of the school, and mentor responsive to emotional, social, relational and professional needs. Effective mentoring initiatives are viewed as "regenerative (helping to inspire their learning and teaching) and generative (giving back to the profession)" (Long et al., 2012, p.12) and build inquiry and selfreflexive capacities for early career teachers. Self-reflexive practice arguably empowers early career teachers through initiatives such as video-taping teaching episodes and constructively analysing with a trusted mentor. Yusko and Feiman-Nemser (2008, cited in Long et al., 2012) noted that "four features were central to melding induction and assessment: programs are goal driven and learning oriented; evidence-based analysis of teaching and learning is employed; mentors are respected; and accountability is part of the induction program" (p.13).

Teacher wellbeing initiatives require inclusive approaches for supporting teachers in rural/remote settings and particularly early career teachers. Brennan, McCallum and Simons (2011-2014, cited in Long et al., 2012) identify the significance of building a sense of community, connectedness and belonging in their ARC Linkage Grant Renewing the teaching profession in regional areas through community partnerships. In addition, Blankenship and Colem (2009, cited in Long et al., 2012) signify the importance of the physical space as part of the school culture and how proximity to others shapes this.

The physical layout can influence a new teacher's role and socialisation into the school culture. Designing teacher wellbeing initiatives in more remote locations to facilitate proximity to support networks and resources is vital, particularly for early career teachers who are grappling with personal and professional changes to their lifestyle.

#### Long et al. (2012) describe a

"move away from a narrow, technical, and fixed goaloriented framework of inducting beginning teachers towards conceptualizing the development of becoming a new teacher as a process. Connelly and Clandinin (1999) conceptualised this identity process as "stories to live by". The process attends to both the personal context of teachers and the cultural contexts of school with attention to a time span. The need to shape relational places on school landscapes that allow beginning teachers' spaces to reconfigure their ongoing identities as teachers is critical" (p.19).

In summary, "educator and learner wellbeing is an individual, collective and community responsibility ... (with) a clear link between teachers' wellbeing, their role in the classroom and school community, and the success and satisfaction of children and young people while in the educational years" (McCallum & Price, 2016, p.128).



# Conclusion

The quality of teaching is a crucial factor in determining the quality of our education system so it is of utmost importance that these issues are recognised and dealt with urgently (House of Commons, 2017). This sentiment is relevant globally, and of particular significance for independent schools in NSW.

The literature review has reported on key messages of teacher wellbeing which are integral to teacher quality. Kern et al. (2014) found that when staff members are doing well across multiple wellbeing domains, they are more committed to the school, and more satisfied with their health, life, and jobs. Findings show that "positive emotion, meaning, and accomplishment were most strongly related to life satisfaction and health, whereas engagement and relationships related most strongly to job satisfaction and organizational commitment" (p. 507). Evidence shows that individuals and schools play a significant role in improving and sustaining positive teacher wellbeing. However, Berryhill et al. (2009) caution that "making changes in individuals when the system is part of the problem leaves basic structures intact and is unlikely to affect the problem ... Therefore, policymakers should consider making changes for teachers rather than in teachers" (p. 9). This suggests the issue of teacher wellbeing is a complex issue that is best addressed using a holistic approach.

Approaching teacher wellbeing not as an individual responsibility but as a shared one creates an opportunity for schools and sectors to work in partnership with relevant authorities and professional associations to keep wellbeing a key feature of teacher induction, mentoring and ongoing professional learning programs (McCallum & Price, 2012). However, "professional learning efforts targeting teacher wellbeing should aim for more than simply reducing stress and burnout — they should also strive to cultivate positive patterns of thinking and feeling" (Cook et al., 2017, p. 15) (see also, Jennings, 2015; Schussler et al., 2016).

Acton, R., & Glasgow, P. (2015). Teacher wellbeing in neoliberal contexts: A review of the literature. Australian Journal of Teacher Education, 40(8).

Aelterman, A., Engels, N., Van Petegem, K., & Verhaeghe, J.P. (2007). The wellbeing of teachers in Flanders: The importance of a supportive school culture. *Educational Studies*, 33(3), 285-297.

Aragon, S. (2016). *Teacher shortages: What we know.* Denver, CO: Education Commission of the States.

Bajorek, Z., Gulliford, J., & Taskila, T. (2014). Healthy teachers, higher marks? Establishing a link between teacher health and wellbeing and student outcomes. The Work Foundation.

Bermejo-Toro, L., Prieto-Ursúa, M., & Hernández, V. (2016). Towards a model of teacher wellbeing: Personal and job resources involved in teacher burnout and engagement. *Educational Psychology*, 36(3), 481-501.

Bernay, R. (2014). Mindfulness and the beginning teacher. Australian Journal of Teacher Education, 39(7), pp. 58-69.

Berryhill, J., Linney, J.A., & Fromewick, J. (2009). The effects of educational accountability on teachers: Are policies too stress provoking for their own good? *International Journal of Education Policy and Leadership*, 4(5).

Bosworth, K., & Judkins, M. (2014). Tapping into the power of school climate to prevent bullying: One application of schoolwide positive behavior interventions and supports. *Theory into Practice*, 53, 300-307.

Bricheno, P., Brown, S., & Lubansky, R. (2009). *Teacher wellbeing: A review of the evidence*. Teacher Support Network, p.55.

Brill, S., & McCartney, A. (2008). Stopping the revolving door: Increasing teacher retention. *Politics & Policy*, *36*(5), 750-774.

Briner, R., & Dewberry, C. (2007). Staff wellbeing is key to school success: A research study into the links between staff wellbeing and school performance. London: Worklife Support.

Bronfenbrenner, U. (1979). The ecology of human development: Experiments by nature and design. Cambridge, MA: Harvard University Press.

Bronfenbrenner, U. (1992). Ecological systems theory. In R. Vasta (ed), Six theories of child development: Revised formulations and current issues. London: Jessica Kingsley, 187–249.

Brown, C.G. (2012). A systematic review of the relationship between self-efficacy and burnout in teachers. *Educational and Child Psychology*, 29(4), 47.

Buchanan, J., Prescott, A., Schuck, S., Aubusson, P., Burke, P., & Louviere, J. (2013) Teacher retention and attrition: Views of early career teachers. *Australian Journal of Teacher Education*, 38(3), 112-129.

Bullough, R.V., Hall-Kenyon, K.M., & MacKay, K.L. (2012). Head start teacher wellbeing: Implications for policy and practice. *Early Childhood Education Journal*, 40(6), 323-331.

Burns, R.A., & Machin, M.A. (2013). Employee and workplace wellbeing: A multi-level analysis of teacher personality and organizational climate in Norwegian teachers from rural, urban and city schools. *Scandinavian Journal of Educational Research*, *57*(3), 309-324.

Butler, S. K., & Constantine, M. G. (2005). Collective self-esteem and burnout in professional school counselors. *Professional School Counseling*, 9(1), 55–62.

Caprara, G.V., Barbaranelli, C., Steca, P., & Malone, P.S. (2006). Teachers' self-efficacy beliefs as determinants of job satisfaction and students' academic achievement: A study at the school level. *Journal of School Psychology*, 44(6), 473-490.

Carter, S. (2016). Holding it together: An explanatory framework for maintaining subjective wellbeing (SWB) in principals, University of Southern Queensland.

Cenkseven-Onder, F., & Sari, M. (2009). The quality of school life and burnout as predictors of subjective wellbeing among teachers. *Educational Sciences: Theory and Practice*, 9(3), 1223-1235.

Centre for Education Statistics and Evaluation (CESE). (2014). School improvement frameworks: The evidence base. Sydney: NSW Department of Education and Communities.

Chang, M. (2009). An appraisal perspective of teacher burnout: Examining the emotional work of teachers. *Educational Psychology Review*, 21, 193–218.

Clandinin, D.J., Long, J., Schaefer, L., Downey, C.A., Steeves, P., Pinnegar, E., McKenzie Robblee, S., & Wnuk, S. (2015). Early career teacher attrition: Intentions of teachers beginning. *Teaching Education*, 26(1), 1-16.

Cohen, J., McCabe, E. M., Michelli, N. M., & Pickeral, T. (2009). School climate: Research, policy, practice and teacher education. *Teachers College Record*, 111(1), 180–213.

Cohen, J., Pickeral, T., & McCloskey, M. (2009). Data now what? The challenges of assessing school climate. *Educational Leadership*, 66(4).

Coleman, J. (2009). Wellbeing in schools: Empirical measure, or politician's dream? Oxford Review of Education, 35(3), 281-292.

Connelly, F.M., & Clandinin, D.J. (1999). Shaping a professional identity: Stories of educational practice. New York: Teachers College Press.

Cook, C.R., Miller, F.G., Fiat, A., Renshaw, T., Frye, M., Joseph, G., & Decano, P. (2017). Promoting secondary teachers' wellbeing and intentions to implement evidence-based practices: Randomised evaluation of the achiever resilience curriculum. *Psychology in the Schools*, 54(1), 13-28.

Curry, J.R., & O'Brien, E.R. (2012). Shifting to a wellness paradigm in teacher education: A promising practice for fostering teacher stress reduction, burnout resilience, and promoting retention. Ethical Human Psychology and Psychiatry, 14(3), 178-191.

Dakduki, J. (2015). The ecological wellbeing and job satisfaction in primary schools teachers: A comparative study between the Arab-Israeli Teachers and the Palestinian (West Bank and Gaza strip), Department of Human Sciences, University of Milano-Bicocca.

Daniels, D., & Strauss, E. (2010). Mostly I'm driven to tears, and feeling totally unappreciated: Exploring the emotional wellness of high school teachers. *Procedia - Social and Behavioral Sciences*, 9, 1385-1393.

Day, C., & Qing, G. (2009), Teacher emotions: Wellbeing and effectiveness. In P.A. Schutz & M. Zembylas (eds), Advances in Teacher Emotion Research. Springer, 15-31.

De Nobile, J. (2016). Organisational communication and its relationships with occupational stress of primary school staff in Western Australia. *The Australian Educational Researcher*, 43(2), 185-201.

De Pablos-Pons, J., Colás-Bravo, P., González-Ramírez, T., & Camacho Martínez-Vara del Rey, C. (2013). Teacher wellbeing and innovation with information and communication technologies: Proposal for a structural model. *Quality & Quantity*, 1-13.

Deci, E.L., & Ryan, R.M. (2008). Hedonia, eudaimonia, and well-being: An introduction. *Journal of Happiness Studies*, 9, 1-11.

Dodge, R., Daly, A.P., Huyton, J., & Sanders, L.D. (2012). The challenge of defining wellbeing. *International Journal of Wellbeing*, 2(3), 222-235.

Drabsch, T. (2012) Measuring wellbeing. NSW Parliamentary Library.

Ereaut, G., & Whiting, R. (2008). What do we mean by 'wellbeing'? And why might it matter? Department for Children, Schools and Families and Linguistic Landscapes (Research Report DCSF- RW073), UK.

Falecki, D. (2015). Teacher stress and wellbeing literature review. Unpublished.

Ferguson, D. (2008). What teachers need to know about personal wellbeing. Camberwell, VIC: ACER Press.

Fetherston, T., & Lummis, G. (2012). Why Western Australian secondary teachers resign. Australian Journal of Teacher Education, 37(4).

Flook, L., Goldberg, S.B., Pinger, L., Bonus, K., & Davidson, R.J. (2013). Mindfulness for teachers: A pilot study to assess effects on stress, burnout, and teaching efficacy. *Mind, Brain, and Education*, 7(3), 182-195.

Forgeard, M.J., Jayawickreme, E., Kern, M.L., & Seligman, M.E. (2011). Doing the right thing: Measuring wellbeing for public policy. *International Journal of Wellbeing*, 1(1).

Gallant, A., & Riley, P. (2014). Early career teacher attrition: New thoughts on an intractable problem. *Teacher Development*, 18(4), 562-580.

Garrick, A., Winwood, P.C., Mak, A.S., Cathcart, S., Bakker, A.B., & Lushington, K. (2014). Prevalence and organisational factors of psychological injury among Australian school teachers. Australasian Journal of Organisational Psychology, 7.

Gasper, D. (2004). Human wellbeing: Concepts and conceptualizations. WIDER Discussion Papers/World Institute for Development Economics (UNU-WIDER).

Gibbs, S., & Miller, A. (2014). Teachers' resilience and wellbeing: A role for educational psychology. *Teachers and Teaching*, 20(5), 609-621.

Gillett-Swan, J.K., & Sargeant, J. (2014). Wellbeing as a process of accrual: Beyond subjectivity and beyond the moment. *Social Indicators Research*.

Glasgow, P. (2016). How to manage stress and an increasing workload. *Independent Education*, 46(1), 30.

Gozzoli, C., Frascaroli, D., & D'Angelo, C. (2015). Teachers' wellbeing/malaise: Which resources and efforts at individual, group and organisational levels? *Procedia - Social and Behavioral Sciences*, 191, 2241-2245.

Grenville-Cleave, B., & Boniwell, I. (2012). Surviving or thriving? Do teachers have lower perceived control and wellbeing than other professions? *Management in Education*, 26(1), 3-5.

Griva, K., & Joekes, K. (2003). UK teachers under stress: Can we predict wellness on the basis of characteristics of the teaching job? *Psychology and Health*, 18(4), 457-471.

Hall-Kenyon, K.M., Bullough, R.V., MacKay, K.L., & Marshall, E.E. (2014). Preschool teacher wellbeing: A review of the literature. *Early Childhood Education Journal*, 42(3), 153-162.

Harris, A.R., Jennings, P.A., Katz, D.A., Abenavoli, R.M., & Greenberg, M.T. (2016). Promoting stress management and wellbeing in educators: Feasibility and efficacy of a school-based yoga and mindfulness intervention. *Mindfulness*, 7(1), 143-154.

Hartney, E. (2016). Stress management to enhance teaching quality and teaching effectiveness: A professional development framework for teachers. Handbook of Research on Professional Development for Quality Teaching and Learning.

Heidmets, M., & Liik, K. (2014). School principals' leadership style and teachers 'subjective wellbeing at school. *Problems of Education in the 21st Century, 62, 40-50.* 

Hills, K.J., & Robinson, A. (2010). Enhancing teacher wellbeing: Put on your oxygen masks! Communique, 39(4), 1-17.

Hobson, A.J., & Maxwell, B. (2016). Supporting and inhibiting the well-being of early career secondary school teachers: Extending self-determination theory. *British Educational Research Journal*, 43(1), 68–191.

House of Commons - Education Committee. (2017). Recruitment and retention of teachers. Fifth Report of Session 2016–17. London: House of Commons.

Hwang, Y.S., Bartlett, B., Greben, M., & Hand, K. (2017). A systematic review of mindfulness interventions for in-service teachers: A tool to enhance teacher wellbeing and performance. *Teaching and Teacher Education*, 64, 26-42.

Jennings, P.A. (2015). Early childhood teachers' wellbeing, mindfulness, and self-compassion in relation to classroom quality and attitudes towards challenging students. *Mindfulness*, 6(4), 732-743.

Jennings, P.A., & Greenberg, M.T. (2009). The prosocial classroom: Teacher social and emotional competence in relation to student and classroom outcomes. Review of Educational Research, 79(1), 491-525.

Johnson, B., Down, B., Le Cornu, R., Peters, J., Sullivan, A., Pearce, J., & Hunter, J. (2014). Promoting early career teacher resilience: A framework for understanding and acting. *Teachers and Teaching*, 20(5), 530-546.

Kelly, P., & Colquhoun, D. (2003). Governing the stressed self: Teacher 'health and wellbeing' and 'effective schools'. Discourse: Studies in the Cultural Politics of Education, 24(2), 191-204.

Kern, M.L., Waters, L., Adler, A., & White, M. (2014). Assessing employee wellbeing in schools using a multifaceted approach: Associations with physical health, life satisfaction, and professional thriving. *Psychology*, *5*(6), 500-513.

Kessels, C. (2010). The influence of induction programs on beginning teachers' wellbeing and professional development, Leiden University Graduate School of Teaching (ICLON), Leiden University.

Kidger, J., Brockman, R., Tilling, K., Campbell, R., Ford, T., Araya, R., King, M., & Gunnell, D. (2016). Teachers' wellbeing and depressive symptoms, and associated risk factors: A large cross sectional study in English secondary schools. *Journal of Affective Disorders*, 192, 76-82.

King, M.F., Renó, V.F., & Novo, E.M.L.M. (2014). The concept, dimensions and methods of assessment of human wellbeing within a socioecological context: A literature review. *Social Indicators Research*, 116(3), 2014/05/01, pp. 681-698.

Konu, A., Viitanen, E., & Lintonen, T. (2010). Teachers' wellbeing and perceptions of leadership practices. *International Journal of Workplace Health Management*, 3(1), 44-57.

La Placa, V., McNaught, A., & Knight, A. (2013). Discourse on wellbeing in research and practice. *International Journal of Wellbeing*, 3(2), 116-125.

Lagrosen, Y., & Lagrosen, S. (2012). Organisational learning for school quality and health. *International Journal of Educational Management*, 26(7), 664-677.

Laine, S., Saaranen, T., Ryhänen, E., & Tossavainen, K. (2017). Occupational wellbeing and leadership in a school community. *Health Education*, 117(1), 24-38.

Le Cornu, R. (2013). Building early career teacher resilience: The role of relationships. Australian Journal of Teacher Education (Online), 38(4), 1.

Le Cornu, R. (2009). Building resilience in pre-service teachers, *Teaching and Teacher Education*, 25, 717-723.

Long, J.S., McKenzie-Robblee, S., Schaefer, L, Steeves, P, Wnuk, S, Pinnegar, E & Clandinin, DJ (2012) Literature review on induction and mentoring related to early career teacher attrition and retention. *Mentoring & Tutoring: Partnership in Learning*, 20(1), pp. 7-26.

Mansfield, C.F., Beltman, S., Broadley, T., & Weatherby-Fell, N. (2016). Building resilience in teacher education: An evidenced informed framework. *Teaching and Teacher Education*, *54*, 77-87.

Mansfield, C.F., Beltman, S., Price, A., & McConney, A. (2012). "Don't sweat the small stuff:" Understanding teacher resilience at the chalkface. *Teaching and Teacher Education*, 28(3), 357-367.

Margolis, J., Hodge, A., & Alexandrou, A. (2014). The teacher educator's role in promoting institutional versus individual teacher wellbeing. *Journal of Education for Teaching, 40*(4), 391-408.

Maslach, C., & Leiter, M. (1997). The truth about burnout: How organisations cause personal stress and what to do about it. San Francisco, CA: Jossey Bass.

Mason, S., & Matas, C.P. (2015). Teacher attrition and retention research in Australia: Towards a new theoretical framework. *Australian Journal of Teacher Education*, 40(11).

Masten, A., Best, K., & Garmezy, N. (1990). Resilience and development: Contributions from the study of children who overcome adversity. *Development and Psychopathology*, 2, 425-444.

Mattern, J., & Bauer, J. (2014). Does teachers' cognitive self-regulation increase their occupational wellbeing? The structure and role of self-regulation in the teaching context. *Teaching and Teacher Education*, 43, 58-68.

Mayhills, D. (2016). Preparing for a future that has already arrived: Improving teacher wellbeing through educational technology, AEL, 38(3), 66-69.

Mazza-Davies, L.L. (2015). Mindfulness in the classroom: An exploration of teachers' perceptions of wellbeing in relation to mindfulness-based classroom practices, University of Waikato.

McAllister, F. (2005) Wellbeing concepts and challenges: Discussion paper. Sustainable Development Research Network, London.

McCallum, F., & Price, D. (2016). Nurturing wellbeing development in education. Routledge, NY.

McCallum, F., & Price, D. (2012). Keeping teacher wellbeing on the agenda. *Professional Educator*, 11(2), 4.

McCallum, F., & Price, D. (2010). Well teachers, well students. The Journal of Student Wellbeing, 4(1), 19-34.

McCrindle. (2017). NSW student enrolments 2031. Report for the AISNSW.

Mehdinezhad, V. (2012). Relationship between high school teachers' wellbeing and teachers' efficacy. Acta Scientiarum Education, 34(2), 233-241.

Milfont, T.L., Denny, S., Ameratunga, S., Robinson, E., & Merry, S. (2008). Burnout and wellbeing: Testing the Copenhagen Burnout Inventory in New Zealand teachers. *Social Indicators Research*, 89(1), 169-177.

Morgan, A.M. (2012). Teaching science in the primary school: Surveying teacher wellbeing and planning for survival. Teaching Science: The Journal of the Australian Science Teachers Association, 58(3), 14-18.

Mulford, B. (2011). Teacher and school leader quality and sustainability. Closing the Gap Clearinghouse. Australian Government, Resource paper number 5.

Naghieh, A., Montgomery, P., Bonell, C.P., Thompson, M., & Aber, J.L. (2015). Organisational interventions for improving wellbeing and reducing work-related stress in teachers (Review). The Cochrane Collaboration, The Cochrane Library, Issue 4.

National Safe Schools Framework. (2010). Supported by the Australian Government Department of Education, Employment and Workplace Relations. Retrieved from https://docs.education.gov.au/system/files/doc/other/national safe schools framework.pdf

National Foundation for Education Research. (NFER). (2016). Engaging teachers: NFER analysis of teacher retention. Retrieved from https://www.nfer.ac.uk/publications/LFSB01/LFSB01.pdf

OECD. (2015). How's life? 2015: Measuring wellbeing. Paris: OECD Publishing.

OECD. (2013). OECD guidelines on measuring subjective wellbeing. Paris: OECD Publishing.

OECD. (2005). Teachers matter: Attracting, developing and retaining effective teachers. Paris: OECD Publishing.

Ostroff, C. (1992). The relationship between satisfaction, attitudes, and performance: An organisational level analysis. *Journal of Applied Psychology*, 77(6), 963-974.

Owen, S. (2016). Professional learning communities: Building skills, reinvigorating the passion, and nurturing teacher wellbeing and "flourishing" within significantly innovative schooling contexts. *Educational Review*, 1-17.

Paim, L. (1995). Definitions and measurements of wellbeing: A review of literature. *Journal of Economic and Social Measurement*, 21(4), 297-309.

Palomera, R., Fernández-Berrocal, P., & Brackett, M.A. (2008). Emotional intelligence as a basic competency in pre-service teacher training: Some evidence. *Electronic Journal of Research in Educational Psychology*, 6(2), 437-454.

Parker, P.D., & Martin, A.J. (2009). Coping and buoyancy in the workplace: Understanding their effects on teachers' work-related wellbeing and engagement. *Teaching and Teacher Education*, 25(1), 68-75.

Paterson, A., & Grantham, R. (2016). How to make teachers happy: An exploration of teacher wellbeing in the primary school context. *Educational and Child Psychology*, 33, 90-104.

Pillay, H.K., Goddard, R., & Wilss, L.A. (2005). Wellbeing, burnout and competence: Implications for teachers. Australian Journal of Teacher Education, 30(2), 22-33.

Pisanti, R., Gagliardi, M.P., Razzino, S., & Bertini, M. (2003). Occupational stress and wellness among Italian secondary school teachers. *Psychology and Health*, *18*(4), 523-536.

Pretsch, J., Flunger, B., & Schmitt, M. (2012). Resilience predicts wellbeing in teachers, but not in non-teaching employees. *Social Psychology of Education*, 15(3), 321-336.

Price, D., Green, D., & Manuel, A. (under review). Growing with gratitude: A school program for promoting student wellbeing and positive school climate. *International Journal on School Climate and Violence Prevention*.

Price, D., & McCallum, F. (2015). Ecological influences on teachers' wellbeing and "fitness". Asia- Pacific Journal of Teacher Education, 43(3), 195-209.

PricewaterhouseCoopers. (2007). Independent study into school leadership. Department for Education and Skills, Nottingham.

Rasku, A., & Kinnunen, U. (2003). Job conditions and wellness among Finnish upper secondary school teachers. Psychology and Health, 18(4), 441-456.

Roffey, S. (2012). Pupil wellbeing—teacher wellbeing: Two sides of the same coin? *Educational* and *Child Psychology*, 29(4), 8-17.

Ross, S.W., Romer, N., & Horner, R.H. (2012). Teacher wellbeing and the implementation of school-wide positive behavior interventions and supports. *Journal of Positive Behavior Interventions*, 14(2), 118-128.

Salimirad, F., & Srimathi, N.L. (2016). The relationship between, psychological wellbeing and occupational self-efficacy among teachers in the city of Mysore, India. The International Journal of Indian Psychology, 3(1), 14-21.

Salter-Jones, E. (2012). Promoting the emotional wellbeing of teaching staff in secondary schools. Educational and Child Psychology, 29(4).

Schimmack, U. (2009). Wellbeing: Measuring wellbeing in the SOEP. Schmollers Jahrbuch, 129, 1-9.

Schussler, D.L., Jennings, P.A., Sharp, J.E., & Frank, J.L. (2016). Improving teacher awareness and wellbeing through CARE: A qualitative analysis of the underlying mechanisms. *Mindfulness*, 7(1), 130-142.

Seligman, M. E. P. (2011). Flourish. New York: Simon & Schuster.

Sharplin, E., O'Neill, M., & Chapman, A. (2011). Coping strategies for adaptation to new teacher appointments: Intervention for retention. *Teaching and Teacher Education*, 27(1), 136-146.

Sisask, M., Värnik, P., Värnik, A., Apter, A., Balazs, J., Balint, M., Bobes, J., Brunner, R., Corcoran, P., & Cosman, D. (2014). Teacher satisfaction with school and psychological wellbeing affects their readiness to help children with mental health problems. *Health Education Journal*, 73(4), 382-393.

Siu, O.L., Cooper, C.L., & Phillips, D.R. (2014). Intervention studies on enhancing work wellbeing, reducing burnout, and improving recovery experiences among Hong Kong health care workers and teachers. *International Journal of Stress Management*, 21(1), 69-84.

Skinner, E., & Beers, J. (2016). Mindfulness and teachers' coping in the classroom: A developmental model of teacher stress, coping, and everyday resilience. *Handbook of Mindfulness in Education*. Springer, 99-118.

Soini, T., Pyhältö, K., & Pietarinen, J. (2010). Pedagogical wellbeing: Reflecting learning and wellbeing in teachers' work. *Teachers and Teaching: Theory and Practice*, 16(6), 735-751.

Spears, B. (2016). Technology and wellbeing. In F. McCallum & D. Price (eds), Nurturing wellbeing development in education. NY: Routledge, 88 - 111.

Spilt, J.L., Koomen, H.M.Y., & Thijs, J.T. (2011). Teacher wellbeing: The importance of teacher-student relationships. *Educational Psychology Review*, 23(4), 457-477.

Stănculescu, E. (2014). Psychological predictors and mediators of subjective wellbeing in a sample of Romanian teachers. Revista de Cercetare si Interventie Sociala, 46, 37-52.

Sutcher, L., Darling-Hammond, L., & Carver-Thomas, D. (2016). A coming crisis in teaching? Teacher supply, demand, and shortages in the US. Palo Alto, CA: Learning Policy Institute.

Taddeo, C.M., Spears, B.A., Ey, L.-A., Green, D.M., Price, D.A., Carslake, T.B., Cox, G.E. (2015). A report on the evaluation of the Safe Schools Hub, University of South Australia, Australia.

Teacher Support Cymru. (n.d.) Promoting teacher wellbeing in Wales: Happy healthy teachers equals happy healthy schools. Teacher Support Cymru.

Tomyn, A.J., Tyszkiewicz, M.D.F., & Cummins, R.A. (2013). The Personal Wellbeing Index: Psychometric equivalence for adults and school children. *Social Indicators Research*, 110(3), 913-924.

Turner, S., & Braine, M. (2016). Embedding wellbeing knowledge and practice into teacher education: Building emotional resilience. *Teacher Education Advancement Network Journal*, 8(1), 67-82.

Turner, S., Zanker, N., & Braine, M. (2012). An Investigation into teacher wellbeing during the teacher training year. *Design and Technology Education*, 17(2), 21-34.

Tyson, O., Roberts, C.M., & Kane, R. (2009). Can implementation of a resilience program for primary school children enhance the mental health of teachers? *Australian Journal of Guidance and Counselling*, 19(2), 116-130.

Uchida, Y., Ogihara, Y., & Fukushima, S. (2015). Cultural construal of wellbeing: Theories and empirical evidence. In W. Glatzer et al. (eds), *Global handbook of quality of life,* Dordrecht: Springer, 823-837.

Van Horn, J., Taris, T., Schaufeli, W., & Schreurs, P. (2004). The structure of occupational wellbeing: A study among Dutch teachers. *Journal of Occupational and Organizational Psychology*, 77, 365-375.

Van Petegem, K., Creemers, B.P.M., Rossel, Y., & Aelterman, A. (2005). Relationships between teacher characteristics, interpersonal teacher behaviour and teacher wellbeing. *Journal of Classroom Interaction*, 40(2), 34-43.

Vazi, M.L., Ruiter, R.A., Van den Borne, B., Martin, G., Dumont, K., & Reddy, P.S. (2013). The relationship between wellbeing indicators and teacher psychological stress in Eastern Cape public schools in South Africa. South African Journal of Industrial Psychology, 39(1).

Veenhoven, R. (2004). Subjective measures of wellbeing. Discussion Paper No. 2004/07. United Nations University: WIDER.

Vesely, A.K., Saklofske, D.H., & Leschied, A.D. (2013). Teachers - The vital resource: The contribution of emotional intelligence to teacher efficacy and wellbeing. *Canadian Journal of School Psychology*, 28(1), 71-89.

Vesely, A.K., Saklofske, D.H., & Nordstokke, D.W. (2014). El training and pre-service teacher wellbeing. *Personality and Individual Differences*, 65, 81-85.

von der Empse, N.P., Pendergast, L.L., Segool, N., Saeki, E., & Ryan, S. (2016). The influence of test- based accountability policies on school climate and teacher stress across four states. *Teaching and Teacher Education*, 59, 492-502.

Watt, H.M.G., & Richardson, P.W. (2013). Teacher Motivation and Student Achievement Outcomes. In J. Hattie & E.M. Anderman (eds) *International guide to student achievement*. Routledge.

Weatherby-Fell, N., & Vincent, K. (2005). Social and emotional wellbeing in teacher education: Reflections by early career teachers. Paper presented at the ATEA: Teacher Education, Gold Coast, Queensland.

Webb, R., Vulliamy, G., Sarja, A., Hämäläinen, S., & Poikonen, P. (2009). Professional learning communities and teacher wellbeing? A comparative analysis of primary schools in England and Finland. Oxford Review of Education, 35(3), 405-422.

WHO. (1947) WHO definition of health (preamble to the Constitution of the World Health Organization as adopted by the International Health Conference, New York, 19-22 June, 1946), World Health Organisation, New York, NY.

Wolf, S., Torrente, C., McCoy, M., Rasheed, D., & Aber, J.L. (2015). Cumulative risk and teacher wellbeing in the Democratic Republic of the Congo. *Comparative Education Review*, 59(4), 717-742.

Wong, Y.P., & Zhang, L.F. (2014). Perceived school culture, personality types, and wellbeing among kindergarten teachers in Hong Kong. Australasian Journal of Early Childhood, 39(2), 100.

Wood, A.L., & Stanulis, R.N. (2009). Quality teacher induction: "Fourth-wave" (1997–2006) induction programs. *The New Educator*, *5*, 1-23.

 $Work life \ Support.\ (2010).\ The\ Well-being\ Programme\ Report.\ London:\ Work life\ Support.$ 

Yin, H., Huang, S., & Wang, W. (2016). Work environment characteristics and teacher wellbeing: The mediation of emotion regulation strategies. *International Journal of Environmental Research and Public Health*, 13(9), 907.

Zhu, C., Devos, G., & Li, Y. (2011). Teacher perceptions of school culture and their organizational commitment and wellbeing in a Chinese school. *Asia Pacific Education Review*, 12(2), 319-328.

Zinsser, K.M., Christensen, C.G., & Torres, L. (2016). She's supporting them. Who's supporting her? Preschool center-level social-emotional supports and teacher wellbeing. *Journal of School Psychology*, 59, 55-66.

