The role of teacher emotions in change: Experiences, patterns and implications for professional development

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Abstract   Research literature in the field of teacher emotions and change broadly accepts that behaviour and cognition are inseparable from perception and emotion. Despite this, educational reform efforts tend to focus predominantly on changing individual behaviours and beliefs and largely neglect or at best pay token attention to the emotional dimensions of the change process. This study examines teacher emotions in the context of educational reform and focuses on the role emotions play when teachers transfer new instructional processes into their practice. The teachers involved in this study took part in a four year systemic change professional development program designed to refine and extend their instructional practice. A sequential mixed methods research design consisting of the administration of a quantitative questionnaire followed by in-depth qualitative narrative interview analysis was used to gain insight into this complex area of educational change. Findings revealed that the teachers involved in this study experienced a range of emotions when participating in professional development and their emotional responses directly impacted their use of new instructional processes. A cyclical pattern of emotions emerged influenced by time, place and interpersonal relationships. Implications for the future design and implementation of professional development change initiatives are discussed.

Keywords   Teacher emotion · Educational change · Professional development · Instructional change · Mixed methods · Vocational education and training · Australia

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Introduction

There is a growing body of research which examines the relationships between teachers' emotions and their professional practice. This emerging research encompasses a range of orientations or emphases, including psychological, sociological, organisational, physiological and philosophical perspectives. When applied, different epistemological and theoretical (paradigmatic) approaches- and their accompanying methods or inquiry act as lenses offering diverse views of a complex and multifaceted field (Hargreaves 2005b; Sutton and Wheatley 2003; Schutz and Zembylas 2011; van Veen and Lasky 2005; Zembylas 2002).

Despite growing acceptance of the integral link between teacher emotions and change Spillane et al. (2002) argue that this area is "overlooked and understudied" (p. 411), a sentiment echoed by a number or scholars including; Nias (1996), Hargreaves (2000, 2001, 2005b, c), Harris (2004), Lee and Yin (2010), Sutton and Wheatley (2003) and Zembylas (2002). Many argue we lack a coherent definition of emotions or a unified approach to their measurement (Pekrun 2006; van Veen et al. 2005; Zembylas and Schutz 2009), most likely due to the diverse range of theoretical approaches used to examine them. Scott and Sutton (2009) believe this fragmentation has resulted in the majority of research in the area of emotions and change being primarily quantitative, attempting to classify and make generalisations about emotions. On the other hand, within education circles, research on teacher emotions and change has predominantly used qualitative methods such as semi-structured interviews (Sutton and Wheatley 2003). Whilst both approaches yield important information about the emotional experiences of teachers during times of change both have limitations. To gain a more comprehensive picture of teacher emotions in relation to professional change, a pragmatic approach is required, one which embodies a combination of methods designed to uncover and better understand the role of emotions as part of the diverse nature of educational change processes (Scott and Sutton 2009; Sutton and Wheatley 2003).

A mixed methods approach has been used in this study to help better understanding the emotions teachers experience when implementing new instructional processes as a result of a systemic change professional development initiative. Notwithstanding recent contributions, (Scott and Sutton 2009 and Turner et al. 2009) few studies specifically examine the role emotions play in teacher professional development programs or chart teacher emotional experiences over time, with different people, in different contexts and different places. The majority of studies in this area are predominantly situated in school systems; in this study the research participants are vocational education and training (VET) teachers who volunteered to take part in a four year system wide professional development program designed to extend their instructional practices.

Given that teachers are frequently asked to change their pedagogical and instructional practices as part of reform efforts, we know very little about the emotions teachers experience when they make such changes as part of professional development programs. The purposes of this study therefore, are to (a) better understand the role emotions play in mediating teachers' implementation and transference of new instructional skills and knowledge gained through professional

development; (b) identify any discernible patterns of emotions experienced by individuals on their change journey; (c) examine how teachers' emotional experiences align with theoretical understandings of processes of change; and, (d) consider the implications the study's finding might have for designers of teacher professional development programs and for change agents in education.

Understanding teacher emotion in the context of reform

It is widely accepted that we lack a coherent theoretical framework for understanding teacher emotions in the context of reform (Sutton and Wheatley 2003; van Veen and Sleegers 2009; van Veen and Lasky 2005; Zembylas 2005). This is perhaps unsurprising given the youthful and emergent nature of the field. Despite this, attempts have been made in recent years to categorise different approaches. van Veen and Sleegers (2006, 2009) suggest that a theory for examining emotion and reform is needed which, "takes both the individual and the environment into account." (2009, p. 235). They call for the development of a theory that encompasses both social-psychological perspectives (intrapersonal)—exploring the interaction between individual identity and the environment; and, sociological approaches (interpersonal)—focussing predominantly on the environment and relationships and less on identity. However when exploring teacher emotions more broadly, Zembylas (2005) argues "teacher emotion is the product of cultural, social and political relations" (p. 4) and claims that what is missing from theory is an examination of how emotions are embedded in power relations inherent in education practices and relationships. He proposes a framework inclusive of intrapersonal, interpersonal, feminist and poststructuralist lenses to uncover the "invisible aspects of emotional work" (2003c, p. 113). Although it is acknowledged that it is neither possible nor desirable to disentangle the study of emotions in this context from socio-psychological notions of identity and self, this study places primacy on exploring the contexts, places and social situations in which emotions arise and change over time. In this context then, this study is more closely aligned with a sociological approach and broadly informed by social constructionism.

Social constructionism has its origins in social phenomenology and interactionism and provides a framework to explore the ways in which individuals actively participate in their perception of reality and construction of self through social relations (Denzin 1984). When viewed as social constructions, emotions are individual lived experiences that are understood, mediated and co-constructed by interaction with others and directly linked to the organisations, cultural and social contexts in which they occur (Denzin 1984; Fineman 1993; Hargreaves 2001; Lord and Harvey 2002).

The process of instructional change is complex and dynamic; teachers don't implement in isolation but instead work with colleagues, students and administrators in a range of different situations over a sustained period of time. Examining these variables provides insight into what emotions teachers experience at different times, in different places with different people and allows us to search for patterns. Viewing emotions as social constructions helps us to appreciate and explore the complexities of teachers' journeys of instructional change.

When socially constructed emotions are not merely a genetically determined psychological phenomenon situated purely within the self but are products of consciousness—lived, experienced, felt and articulated; inextricably linked to individuals' interactions with their environment and their personal interpretation of their experience (Averill 1980; Denzin 1984; Harre 1986). Exploring individuals' emotions as constructs which are separate from the environment and their social relationships denies the complex and inherently social nature of teaching. As Denzin (1984), Hargreaves (1998) and Nias (1996) remind us, teaching is fundamentally an emotional practice which elicits strong feelings in individuals, and these feelings are influenced by complex interchanges between people, systems and structures. If teacher emotions are viewed as social products, generated by interactions with the environments in which individuals operate, it is reasonable to deduce that emotive reactions to environmental influences will in turn mediate behaviour (Schmidt and Datnow 2005) thus highlighting the powerful interdependence between emotions, the contexts in which they arise and individual behaviours. Hochschild's (1993) work on *emotional labor* explores the relationship between, environment, emotions and behaviours more deeply. She argues that teaching is a profession that calls for emotional sensitivity and teachers learn to manage and suppress their true feelings in order to display behaviours which fit with organisational expectations. Hochschild largely views the concept of emotional labour as a negative but ultimately necessary part of teaching within systems— wherein a part of the self is exchanged for security, acceptance and organisational reward.

Social constructionism then provides a framework which recognises teaching is an emotional practice, that education systems are complex and dynamic and that implementing change involves social interactions bound by time and place which arouses emotional responses.

Teacher emotions, reform and professional development

The majority of studies on emotion and reform have focused on teacher rejection or acceptance of change efforts and whilst professional development programs are often referred to they are not the primary focus of inquiry. These studies explore how teachers appraise, interpret, make sense of and adapt mandated reforms based on the degree to which aspects of the change agenda are consistent (or not) with teachers' personal ideologies (Schmidt and Datnow 2005; Spillane et al. 2002; van Veen and Sleegers 2006). The extent to which a teacher experiences congruence between their professional beliefs, values and practices and the reform agenda is used to predict whether they are likely to emote positively or negatively towards the change (Lee and Yin 2010; Jeffrey and Woods 1996; Little 1996, 2000; Little and Bartlett 2002; van Veen and Sleegers 2006). This information is useful in helping us better understand the relationship between emotions and teacher change. However, there is still much to be learnt and Hargreaves (2005a, b, c) calls for the need to move beyond acknowledging teacher emotions in reform in terms of how they can help administrators and reformers 'manage' resistance and help set climates conducive to change. Simply accepting that teachers are likely to be positively or

negatively emotively orientated to reform oversimplifies the intricate and dynamic process of change and the inherently complex nature of the educational systems teachers work within. This type of information therefore can only be used in a limited way when it comes to designing professional development programs and supporting the teachers who take part in them.

Teachers are often required to make extensive alterations to their practice during reform efforts and professional development has long been used as a mechanism to support these efforts and leverage change (Fullan 2001; Guskey 2002). Changing teacher practice however is notoriously difficult to achieve as it involves modifying teachers' ways of working (Fullan 2001; van Veen and Sleegers 2009). Fullan (2001) cites three dimensions of change, all of which have a direct impact on teachers and their work: (1) possible use of new or revised materials—this can include curriculum materials and instructional resources; (2) use of new teaching approaches, strategies or methodologies; and, (3) possible change in beliefs—challenging existing assumptions or theories that underlay programs or policies. More often than not, professional development as part of reform is concerned with modifying all three areas. It is not surprising then that professional development programs often initiate strong emotional reactions in teachers (Darby 2008; Lasky 2005; Reio 2005), often challenging their deeply held beliefs, values and sense of professional identity (Turner et al. 2009). Teachers' ways of working are inexorably bound by personal beliefs, values, notions of self efficacy and professional identity. Schmidt and Datnow (2005) argue that this means educational reforms are complex and subject to "interpretation and reinterpretation by the teachers who implement them" (p. 952). This negotiation process is heavily influenced by individuals' sense of moral purpose (Hargreaves 2001), their cultural backgrounds (Zembylas 2003b), and their sense of personal identity (Cross and Hong 2009; Hargreaves 2005a; Reio 2005; Zembylas 2005). In this context professional development programs become sites for complex and emotionally demanding teacher experiences.

Teacher identity

Teacher identity is a complex phenomenon and has received considerable attention from scholars over recent years (Cross and Hong 2009; Day 2002; van Veen et al. 2005; Zembylas 2003a, b). This paper seeks to explore the sociological issues related to teacher emotion in the context of professional development—approach to exploring teacher emotions it is beyond the intention and scope of this paper to explore the issue in great depth. Nevertheless it is important to acknowledge the significance of teacher identity and the dynamic interplay between notions of self and emotion at the interface of change. Drawing from the work of Nias (1989), Van Veen and Sleegers (2009) suggest that teacher professional identity comprises elements such as; self image, self esteem, job motivation, core responsibilities and perceptions about teaching and subject pedagogy. Cross and Hong (2009) elaborate further and suggest that teachers' professional identity is fundamentally grounded in personal belief systems and can be understood as "a framework established and maintained through interaction in social situations, and negotiation of roles within the particular context" (p. 278). Beliefs strongly influence how an individual frames issues, organises tasks and solves problems and can be

organised into three categories, (1) beliefs teachers hold about epistemological issues; (2) interpersonal beliefs which include notions of self efficacy; and, (3) domain specific beliefs that relate to how an academic discipline should be taught. In this circumstance it becomes difficult to separate teachers' beliefs from their instructional practice which in turn informs their selection and use of curriculum and support materials.

Teacher professional identities then develop over time and are constructed by a complex interplay between personal values, beliefs and past experiences which are bound by social, cultural and institutional relationships (Day and Qing 2009; Zembylas 2005). In this sense, notions of professional identity are dynamic, and continually being formed and reformed through interactions with others and are directly challenged when teachers are asked to change their beliefs about themselves in their instructional role and how they relate to their colleagues, students and parents (Cross and Hong 2009). Inevitably this process is accompanied by a range of emotional responses (Schmidt and Datnow 2005).

From a sociological perspective emotions are viewed as 'relational' (Schultz et al. 2009, p. 202) in that they are activated by transactions between an individual and their environment. Hochschild (1990) suggests that four inter-related elements are operative when an individual experiences an emotion; (1) appraisal of the situation; (2) changes in physical sensations; (3) inhibited or open gesticulation; (4) application of a cultural label to the way in which the first three elements are assembled. An individual makes a judgement or appraisal based on their personal goals, values, beliefs and social networks. These are the reference points an individual uses (consciously or unconsciously) to decide where he/she is in relation to where they want to be (Schultz et al. 2009). If an event is appraised to be going well and in congruence with an individual's goals, values and beliefs a pleasant emotional response is expected. Conversely, if things are not going well an unpleasant emotional episode is likely. Schultz et al., also argue that teacher appraisals are influenced by the social–historical context in which transactions occur. For example, values and beliefs about education and the role of teachers are socially constructed over time and lie embedded within education systems and processes, and society at large. A teacher must develop knowledge of these values and beliefs and adopt them personally for them to become part of their own internal belief and value system, and ultimately part of their professional identity.

Accepting the interconnectedness of these elements is important for this study because it reflects the complexity of the change process and also highlights the inseparable nature of cognitive, behavioural and affective dimensions of change. Reform efforts frequently challenge teachers to re-examine, abandon or adopt new ways of working. Ultimately these are filtered through belief and value systems and conceptions of identity. Cross and Hong (2009) remind us that reformers need to be aware that the interplay between teachers' positive and negative emotions during change efforts has strong potential to influence the success or failure of educational reform.

Concerns based adoption model

In order to explore the relationship between behavioural and emotional aspects of change at the individual level, a model of educational change which recognises both

dimensions was required. For this study, the Concerns Based Adoption Model (CBAM) was used as both a conceptual lens and an empirical framework because it is based on change theory and is specifically designed to measure the impact of educational reform programs for intended adopters. CBAM has been used extensively in educational research in the United States since its development the late 1970s and early 1980s. Over the years it has been widely researched and has been found to be generally robust and reliable. It has received little attention or use in the Australian context and even less in the examination of professional development change initiatives for vocational teachers. In this sense the application of the CBAM framework provides a fresh empirical approach to examining professional development for vocational education teachers in the Australian context. In addition to providing a conceptual framework for understanding change, CBAM also comprises a set of measures, including: *Stages of Concern (SoC), Levels of Use (LoU)* and *Innovation Configuration (IC)* (Hall and Hord 2006; Hall and Loukes 1979; Loucks et al. 1975).

Fundamental to CBAM is that educational or professional change is a process and not an event, and as individuals navigate their way through change they encounter not only a number of affective "stages of concern" but also progress to different "levels of use." The developers George et al. (2006) argue "Together, the *Stages of Concern* and the *Levels of Use* provide a powerful description of the dynamics of an individual involved in change, one dimension focusing on feelings, the other on? performance." (p. 4).

The SoC framework and the accompanying measure—*The Stages of Concern Questionnaire (SoCQ)* was used in this study for three reasons; (1) it focuses on the affective or personal side of the change process (George et al. 2006; Hall and Hord 2006); (2) it aligns well with a social constructionist view of emotions in that implementing change involves interaction with the environment and other people, and during the process of interaction concerns arise; and, (3) it provides a conceptual framework which can be used to examine the process and progress of change at both group and individual levels.

Whilst the SoCQ instrument is not specifically designed to measure emotions, Hall and Hord (2006) state that it is designed to examine "feelings and perceptions about innovation and the change process" (p. 134) and these "can be sorted and classified into what we call concerns" (p. 134). In the context of the SoCQ, Hall and Hord define the term 'concern' as "The composite representation of the feelings, preoccupation, thought, and consideration given to a particular issue or task is called *concern*. Depending on our personal make-up, knowledge, and experiences, each person perceives and mentally contends with a given issue differently; thus there are different kinds of concerns" (p. 138). Horsely and Loukes-Horsley (1998) also remind us that as individuals experience change and adapt to new circumstances different concerns give rise to "many different and powerful emotions" (p. 5). In this sense, emotions are products of concerns, generated by an individual's appraisal of a situation and environment based on how they interpret self, social and cultural contexts. This aligns well with the constructionist view of emotions in that they are inextricably linked to an individual's interaction with their environment and their personal interpretation of their experience (Hargreaves 2001). SoC is therefore

valuable in helping us develop a better understanding and exploring the affective dimension of change by identifying teacher concerns, which in turn can be used to assist inquiring more deeply into the emotional dimension of the experience.

The developmental nature of the SoC framework is based on the view that concerns emerge and must be resolved before later concerns arise (George et al. 2006). Understanding the developmental pattern of concerns allows us to better understand teacher's experiences of change over time and this is of particular relevance for this study in seeking to explore teacher professional development. The CBAM literature (e.g., Hall and Hord 2006) states that when professional development is facilitated well implementers will move from self-related concerns to task concerns within 3 years, and will progress to impact-related concerns within 3–5 years. This conceptualisation aligns well with the work of Fullan (2001) who suggests that once a decision has been taken to adopt or proceed with change (*Initiation*) the next stage of use (*Implementation)* or initial use, usually takes 2–3 years and involves early attempts at putting the initiative into action. Transition to the next stage (*Institutionalisation*) refers to change being built into the system and becoming part of routine working practice. Fullan (2001) suggests that the time taken to move from initiation to institutionalisation takes between 3 and 5 years for reasonably complex initiatives and 5–10 years for large scale efforts.

If we better understand teachers' emotional reactions that arise from their concerns at different points of time when trying to implement new practices as part of a professional development program we are better placed to be able to support them more effectively as well as improve our understanding of educational change processes.

Method

The instructional intelligence professional development program

The professional development change initiative that provided the context for this study is known as *Instructional intelligence* (Bennett 2010). For Western Australia (WA), the Instructional intelligence (II) professional development program ran for a period of 4 years, (2005–2008) and was designed to extend the instructional repertoire and expertise of tertiary vocational teachers. The system-wide program was initiated in response to a change in state legislation which raised the school leaving age from fifteen to seventeen years of age. In an attempt to widen provision and provide options for students the vocational education and training system was required to provide school students with access to their existing courses and develop new ones specifically designed to meet their needs. As an increasing number of young students entered a principally adult learning environment, many of them reluctantly, it became evident that vocational teachers required new or upgraded instructional skills to successfully engage and manage this cohort.

Instructional intelligence (II) was developed by Barrie Bennett (Bennett 2002; Fullan 2002; Bennett 2010). Working towards a theory of instruction Bennett has progressively developed the concept over the past thirty-six years of his own

teaching, research and work with teachers. Bennett describes II as the point at which the art and science of instruction meet and merges curriculum, assessment, knowledge of how students learn, instructional skills, tactics and strategies and theories of change (Bennett and Rolheiser 2001). In describing the "science" component of II, Bennett refers to it as the way in which teachers pay attention to the research on the impact of using different instructional methods on student learning (in this context effect size) by stacking and integrating different methods to create the most powerful learning environments for students. "Art" is the creative and individual way in which each teacher will stack and integrate different instructional methods to suit different groups of students. By increasing teachers' instructional repertoire Bennett argues; "we are more likely to become artful or creative and more scientific or intentional when differentiating our instruction to meet the diverse needs of students" (2010, p. 69).

Developing instructional intelligence involves more than teachers simply collecting an extensive assortment of instructional methods in that developing expert behaviour in the use of any new skill takes time and practice. A central tenet of the concept is helping teachers better understand and work effectively with educational change and this was reflected in the design and implementation of the II professional development program in WA. The program was based on research and theory into educational change (Fullan 2001; Hall and Hord 2006; Huberman 1983) and effective staff development (Bennett 1987; Joyce and Showers 1995; Joyce and Weil 1996; Huberman and Miles 1984), which recognises that change occurs over time and is a developmental process, and effective staff development occurs when individuals work in teams, have opportunities to practice and reflect on their progress and receive constructive feedback and coaching.

Program participants attended the II professional development workshops in college-based teams comprising between two to four individuals. Over the 4 years of the program, workshops were held two or three times a year with each session running for three consecutive days. At each session, participants engaged with theory and research on a selected range of instructional innovations. The steps involved in implementing the innovations were modelled and participants practiced them and received feedback and coaching on their progress. Participants then considered the process and impact of integrating innovations across different content domains and with different cohorts of students. When they returned to their colleges the teachers were required to trial the instructional methods in their classrooms, reflect on the process and meet in their teams to discuss progress and provide support using peer coaching methods.

In this sense, the professional development program involved a complex and lengthy journey of instructional change for participants. The process was highly interactive and involved teachers seeking to make change in different contexts with different people.

Research participants

The research participants for this study were recruited from a group of thirty-five VET teachers who participated in the instructional intelligence professional

development program. Drawn from across the ten public VET colleges in WA—comprising fifty campuses situated across metropolitan, regional and remote locations—twenty-seven teachers volunteered to take part in this study. This group is broadly representative of teachers in the vocational training and education sector working across diverse content areas including; adult literacy, business studies, metal, mining, electrical and engineering trades, building and construction and community services. Participants varied in teaching experience and comprised 8 males and 19 females. Years of teaching experience varied across the group with 4 individuals (14.8 %) having between 1 and 4 years teaching experience, 4 (14.8 %) between 5 and 10 years, 11 (40.8 %) between 11 and 15 years, 2 (7.4 %) between 16 and 20 years and 6 (22.2 %) having over 20 years teaching experience. More than half (17 teachers, or 63 %) had taken part in all 4 years of the II professional development, 4 (14.8 %) had participated for 3 years and 6 (22.2 %) had been engaged with the professional development program for 2 years.

Research design

In seeking to better understand teacher emotions in multiple contexts and relationships over time, a pragmatic mixed methods approach informed the design, data collection and methods of analysis for this research study. Quantitative data collection involved the use of the CBAM SoCQ which provided a 'snapshot' of teacher concerns at the close of the program. To gain a deeper insight into teachers' experiences over time qualitative data were gathered using in-depth semi- structured interviews and these data were examined using narrative analysis. Drawing from varied sources of data affords opportunities to examine the complex nature of the change process as a personal, emotional, behavioural, systemic and dynamic process which occurs over a period of time. As already described, adopting a mixed methods approach to examining the relationship between teacher emotions and change can work to address any potential weaknesses that may be inherent in a single method approach (Johnson and Onwuegbuzie 2004).

The mixed methods research design was explanatory in that it comprised four complimentary sequential phases of data collection and analysis, with each phase informing the subsequent phase. Quantitative methods were used first to identify meaningful patterns; this was followed by qualitative methods designed to help elaborate the quantitative data and gain insight into more complex experiential phenomena (Greene and Caracelli 1997). Specifically, data collection methods comprised the following; (1) administration of a 35-item questionnaire (quantitative, *Stages of Concern Questionnaire)*; (2) in-depth semi-structured interviews (qualitative); (3) classroom observations and; (4) short reflective interviews (qualitative). Analysis involved the application of mainly descriptive statistics for quantitative data, and narrative and interpretive analysis for qualitative data.

This paper focuses on phases one and two of data collection and analysis only, for a number of reasons. Data gathered in phases one and two were self-reported. The use of CBAM instrumentation in phase one focused on participants' experiences of implementing a single innovation and was used as a mechanism to identify individual concerns and levels of use and has several limitations when

exploring the emotional dimension of the change process. Quantitative data gathered by the SoCQ are used to generate individual and collective concerns profiles; these data however provide only a snapshot of concerns at a particular time which is then interpreted by the use of generic concern descriptors. Several important questions still remain, such as why do individuals possess certain intensities of concern, how did they reach these points, what were their thoughts, feelings, emotions and experiences as they developed, who or what helped or hindered their journey and how did their emotional engagement with the change process affect their progress and ultimately their implementation of change?

Phase two therefore focused specifically on narrative methods providing space for personal expression unconstrained by structured pre-determined interview questions, thereby encouraging more in-depth disclosure.

Phases three and four gathered observational and self report data focused on participants' classroom implementation of the innovation they reported in phase one. These data were not related to the emotional dimension of the change process. Therefore for the purposes of this paper it is appropriate to focus only on data collected from phases one and two.

Although this methodology has limitations in regard to measuring an individual's full range of emotional experiences throughout the entire change process, the design nevertheless provided participants the opportunity to share in-depth personal insights into emotional experiences and was used to better understand the emotional dimension of the change process and inform the direction of further research.

Data collection and analysis

As outlined above, quantitative data gathered from phase one was used to initially categorise individuals into different SoC; from this, distinct sub-groups were identified. These data were then used to identify individuals representative of the sub-groups who would proceed to phase two of data collection and analysis. The individuals who proceeded to phase 2 were representative of all the different sub-groups.

Phase one: Stages of concern questionnaire (SoCQ)

CBAM instrumentation SoCQ was used in the first phase of data collection. The SoCQ instrument identifies and measures 7 different stages of concern including: (0) *Unconcerned*, the teacher indicates little concern about or interest in the innovation; (1) *Informational*, the teacher indicates a general awareness of the innovation and wants to learn more; (2) *Personal*, the teacher is concerned about his/her ability to implement the innovation and uncertain about the personal investment involved; (3) *Management* concerns arise when the teacher has started to implement the innovation and is focussed on the logistics involved in putting it into practice; (4) *Consequence*, the teacher is concerned about the effect of change on his/her students; (5) *Collaboration*, concerns are highlighted when the teacher is interested in working with others to jointly improve the benefits of use for students;

(6) *Refocusing*, the teacher is making or considering making major modifications to the innovation or replacing it completely.

The SoCQ instrument comprises 35 Likert-scale questions in which respondents are asked how they feel about the professional change that they are experiencing. The following scale is used with all items: (0) irrelevant, (1–2) not true of me now, (2–4) somewhat true of me now, and (5–7) very true of me now. Hall, George and Rutherford (1979) determined that the *SoCQ* has good reliability, with Cronbach-α (internal consistency) coefficients ranging from .64 to .83, and test–retest (Pearson-r) coefficients ranging from 0.65 to 0.86 (Hall and Hord 2006). Hall, George, and Rutherford (1998) used a number of approaches to determine the validity of SoCQ scores including inter-correlation matrices, judgments of concerns based on interview data, and confirmation of anticipated group differences and changes over time. The results of these studies indicate that the reliability and validity of the SoCQ are within acceptable ranges for assessing individual concerns related to professional change initiatives.

All participants completed an on-line version of the SoCQ. The resulting raw data were converted into percentile scores and used to generate individual profiles for each participant, displaying relative intensities of concern for each stage. These scores were transferred onto a graph, visually representing the peaks and troughs of an individual's concerns associated with each stage. In order to gain additional insight into the dynamics of concerns, a first and second highest score analysis was conducted for each participant. Data were then analysed for the group by identifying the group's modal score and by generating an overall group profile by averaging all of the raw scores and converting them into percentiles. In this way, quantitative data gathered by the SoCQ were used to generate both individual and group concerns profiles. Individuals representative of different peak and second highest score concerns profiles were isolated resulting in a total of 8 cases based upon different first and second highest stages of concern. What circumstances, experiences and relationships had contributed to these results, what were the different individual stories of the change process? This smaller group of participants progressed into the remaining phases of data collection.

Phase two: Narrative inquiry

In order to gain insight into these questions and better understand the role emotions play in individuals' experiences of change, narrative inquiry was used for the second phase of data collection and analysis. Narrative inquiry is used increasingly in educational research as a means to better understand the experiences of teachers by exploring their personal and collective stories (Clandinin and Connelly 1996, 1998; Connelly and Clandinin 1987, 1990, 1999; Zembylas 2003a). Fundamental to narrative inquiry is the notion that humans live "storied lives" (Connelly and Clandinin 1990, p. 2) and we share these stories with others in order to communicate and make sense of our world. Stories are privileged in narrative inquiry because they contain information related to how individuals construct and mediate relationships, their personal identities, and provide insight into individual thoughts and emotions and how these in turn influence behaviour (Clandinin and Connelly

1998; McAdams 1993; Rosenwald and Ochberg 1992; Riessman 1993). In the context of exploring teacher emotions Zembylas (2003b) states that narrative research "analyzes the discursive environments that effect the process by which experiences and meanings are assembled into identities" and this in turn serves to highlight the "situatedness of self" (p. 215).

Clandinin and Connelly's *three dimensional narrative inquiry space* research framework was used into gain insight into the emotional experiences of teachers (2000). Influenced by Dewey's writings on the nature of experience, Clandinin and Connelly's framework "creates a metaphorical three-dimensional narrative inquiry space" (p. 50) through which to view teacher stories. Central to Clandinin and Connelly's interpretation of Dewey's work is that individuals can only be understood in relation to the social contexts in which they exist, and the notion of individual experience is created over time—as one experience grows out of another (Clandinin and Connelly 2000). They adapted Dewey's terms *interaction, continuity* and *place* for viewing experience and incorporated these constructs into the foundations of their own *three dimensional narrative inquiry space*. As the name suggests the framework comprises three dimensions or lenses: (1) *personal* and *social* (interaction)—relating to an individual's social exchanges and making sense of the self in relation to others; (2) *past*, *present,* and *future* (continuity)—a chronological framework which can be used to view experiences over time; and (3) the notion of *place* (situation)—relating to an individual's experiences in different places and contexts. Applying these different lenses to stories helps disentangle the complex nature of the reality of teacher's lives and their emotional experiences as they implement instructional change. It also provides a clear structure for us to examine teacher emotions over time, how they feel as they interact with different groups of people including students, colleagues, managers and professional development consultants (*interaction*), if emotions (feelings) change over time (*continuity*) and if their emotions are context bound (*situation*). Examination of data through the three lenses therefore allows us to identify any patterns or anomalies which might have occurred.

In phase two of the data collection, individual in-depth, open-ended interviews were conducted with each of the 8 participants, each lasting for approximately 60 min. Participants were invited to recount *personal experience stories* (Clandinin and Connelly 2000) in which they focused on stories they felt described their emotional reactions to implementing instructional change at different points in time. The interview process was designed to allow participants to speak openly about their experiences; prompts were given by the interviewer when required, to elicit stories about teachers' experiences of implementation of II in different contexts, with fellow workers and students over time. For example, participants were first asked to recount stories about how they felt about the II professional development program when they first began their journey. They were asked to focus on the emotions which arose at the time and to consider their initial reactions to their fellow participants, the way in which the program was structured and how they felt about making instructional change in their practice. Interviews were audio-recorded, then transcribed and remapped through the process of re-storying.

Individual stories are a complex mix of thoughts, feelings, relationships, places and events bound by time. In order to unravel these elements and provide form and structure to accounts it is common for narrative researchers to analyse the data using a process called re-storying. This process involves analysing and reconstructing the original story using a pre-determined framework. As outlined, Clandinin and Connelly's *three dimensional narrative inquiry space* was applied and narratives were re-storied under the following categories; (1) *interaction;*, (2) *continuity;* and, (3) *situation.* Re-storied narratives were then returned to participants to enable them to validate the accuracy of the accounts. Stories were then analysed using a coding system which flagged incidences where teachers referred to their affective responses or to their experiences with words which indicated an emotional response such as; *happy, excited, nervous, frustrated, angry* or *I felt.* Stories which explicitly contained references to emotions were selected for use in this paper. Each of the three categories were then analysed to identify any themes or anomalies contained in the stories. For example, when examining stories about continuity, did the teachers report similar emotions at the beginning of their journey and did these emotions change as the program progressed? When examining stories of interaction what emotions did teachers report when interacting with different people, including students, colleagues, and managers participating in the program with them?

When analysing emotions over a period of time (*continuity*) the SoCQ constructs were used as an additional lens to identify the concerns teachers experienced at different points of the change journey and to discern patterns in emotional responses linked to these concerns across time. The developmental facet of the SoC framework suggests that individuals move from *self* to *task* to *impact* concerns as they progressively implement change. Teacher stories were analysed to see what emotional responses they reported at different stages of their journey and to see if these related to *self*, *task* or *impact* concerns. This additional frame provided a means of identifying any patterns in emotional responses linked to different stages of concern at different points in time.

Findings

Findings from this study are described in the order in which data were collected and analysed. The SoCQ data were used first, to profile individual SoC and identify meaningful patterns across the twenty-seven teacher participants—findings from this phase are discussed initially. This is followed by description of findings derived from the narrative analysis of interview data collected in phase two of the study.

Stages of concern questionnaire: Peak score analysis

Analysis of the SoCQ responses revealed that the modal stage of concern for the sample was Stage 5—Collaboration. Twenty out of 27 individuals (74 %) of the group held peak Stage 5 concerns indicating that at the end of the program the majority of the group wished to collaborate with others with regard to their use of the innovation. Collaboration concerns are classified as *impact* concerns and

Table 1 Frequencies and percentages for highest stages of concern for the study group

Frequencies and percentages for highest stages of concern for the study group

	0	1	2	3	4	5	6	Total
Number of individuals	0	0	4	2	0	20	1	27
Percent of individuals (%)	0	0	14.9	7.4	0	74.0	3.7	100

indicate that the individual has moved beyond initial *self* and *task* concerns and is now focused on working with others and sharing ideas to continue and improve their use. Further analysis (examining the peak and second highest stage in combination) revealed that the reasons individuals want to collaborate are varied and range across the full spectrum of concerns, from collaborating about any issue regarding use (Stage 0); gaining more information about the use of innovations (Stage 1); managing time and resources (Stage 2); considering the impact use has on students (Stage 4); and changing the way the innovation is used (Stage 6). Table 1, displays the frequencies and percentages for the highest Stages of Concern for the group.

When examined in relation to the developmental dimension of the SoC framework, these findings also provide information about the design and implementation of the II professional development program. CBAM literature (Hall and Hord 2006) suggests that if an innovation is appropriate and the change process is facilitated wisely over time then implementers will move from early self concerns (Information and Personal) to task (Management) concerns within 3 years. Between 3 and 5 years they will progress to impact concerns (Consequence, Collaboration and Refocusing). For the majority of the group to have developed to this Collaboration Stage "means that change has truly been treated as a process, that the innovation has been given sufficient time to be implemented" (Hall and Hord, p. 150).

The peak scores for the remaining 26 % of participants—those other than reported at Peak Stage 5 were as follows;

Stage 2: Personal, 14.9 % (4 individuals)

Personal concerns are related to the *self* and indicate uncertainty about the demands of making change and how this relates to the teachers' role and status in the organisation. Hall and Hord (2006) state that personal concerns are usually found in the early stages of change and indicate that individuals are concerned about potential conflicts which may arise with existing structures as they begin to use an innovation.

Stage 3: Management, 7.4 % (2 individuals)

Management concerns are classed as *task* concerns and show that the individual is focused on the processes and steps related to using an innovation. Issues relating to managing time, resources and logistics related to the innovation are of primary importance to these individuals.

Stage 6: Refocusing, 3.1 % (1 individual)

Refocusing concerns are *impact* concerns and indicate that the individual is focussed on exploring new ways of using an innovation. This may include the possibility of making major changes to it or replacing it entirely. Individuals at this stage often have very clear ideas about alternatives to the current form of the innovation and are looking to change.

Whilst the SoC descriptions provide us with useful information on the affective concerns and preoccupations of individuals the findings are limiting in terms of better understanding the emotional dimension of the change process. In order to gain a deeper insight into these issues eight individuals were selected from the sample representative of all the first and second highest stages of concern. These individuals participated in phase two of data collection and analysis involving narrative methods.

For the purposes of this study the findings from two stories analysed using narrative methods are shared. These two cases were taken from the largest SoC sub group (Stage 5—Collaboration) which comprised 74 % of teacher participants and were selected for a number of reasons. Firstly, they are representative of the majority of the sample and provide insight into the largest number of participants in the sample. Secondly, analysing two stories from the same group allows data to be compared and examined for any similarities, patterns and anomalies. Whilst caution regarding the generalisability of any findings to other teachers in the sample needs to be exercised, these two stories are typical of those told by others in this group and provide valuable insight into personal experience. Finally, Creswell (2008) points out, "narrative typically focuses on studying a single person" (p. 512) and provides deep insight into individual lived experiences. Therefore incorporating all eight stories in this paper would result in the integrity of the teacher stories and the process of narrative methods being compromised.

Narrative analysis

The stories are analysed and are presented thematically in line with Clandinin and Connelly's (2000) three dimensional narrative structure:

1. *Continuity*—stories about implementing new instructional practices: past, present and future;
2. *Interaction*—stories about relationships, feelings and emotions; and,
3. *Situation*—stories about physical context

The story tellers

The names of the participants who have shared their stories have been changed, but their narratives are original. Rosie is a commercial business consultant for a large Perth metropolitan college. She has been a college teacher for over 20 years and has taught in the adult literacy, business and community services areas. Rosie participated in all four years of the professional development program. Amber

works for the Western Australian Department of Education and Training as a project manager. She has worked as a college teacher and as a principal lecturer for over 10 years in regional and metropolitan colleges in the education and business services areas. She attended 3 years of the professional development program.

Continuity: Stories about implementing new instructional practices: Past, present and future

The past

Individual stories of implementation of new instructional innovations vary but are characterised by emotional highs and lows. Rosie recalls her feelings when she first began to use new instructional processes in her classroom.

> I felt nervous at first, using new stuff, feeling like it might go "pear shaped." There was the stress of getting thorough the timeframe, 6 weeks to get through content and I was worried that I would waste a session and I did end up wasting a session because it took me more time than it would normally. I was anxious because I wasn't sure if it was going to work. I was concerned about managing the process, about how many people there should be in a group, were there enough handouts, when should we have morning tea, would it wreck the activity if I stopped for a break too soon? What would other lecturers say about it, what would I do if the students refused to do it, how would I deal with it?

Rosie's apprehensions reflect a complex blend of *self* and *task* concerns, predominantly Stage 2—Personal and Stage 3—Management. She talks about internal conflict between fitting into organisational structures and frameworks whilst managing the logistics of a new instructional process for the first time. This tension generates feelings of nervousness, anxiety and worry. Rosie is also concerned about the impact the process will have on her students, her relationships with them and with her colleagues. The *stress* of managing time and resources is further compounded by feelings of uncertainty relating to her self-efficacy when attempting to meet the demands of the innovation.

Amber's journey of implementation charted a similar path, but additional complexities arose when she worked with two different groups of students. One group comprised teaching colleagues in her role as a staff development trainer and the other a class of students training to become teacher assistants:

> There was uncertainty at first I wasn't sure how people were going to respond. I try to have fun and I know I have had feedback in the past that I don't take things seriously because I get them to do activities. I was always a bit tentative, anxious, unsure whether I should go down the path and how much I should do when delivering to staff. However, when I was delivering to my external students I was a lot braver and a lot more of a risk taker with them in the early days.

Amber recalls a specific experience which illustrates and legitimises her 'tentative' feelings regarding the use of the new strategies with colleagues:

> I remember a group of trade lecturers that had been there for 18 months. I started off using the stuff and there was one lecturer and he was really not happy. He just didn't want to do it, he basically thought it was a whole lot of bullshit. He just wanted me give him the info so he could walk away. So there are always people like that in the back of your mind you always want it to be purposeful for learners, they are busy people. I don't want to waste their time but if I present it in a different way, for me it doesn't work.

Amber and Rosie's stories reveal their concerns about implementation new instructional innovations in different contexts with different groups of students as they undertake different organisational roles. For example when having to use the instructional innovation with her colleagues for the first time the situation left Amber feeling *tentative, anxious, unsure*. Both teachers speak of their concerns about how their colleagues will view them, causing each to question what this means for their role and status within the organisation and relates to Stage 3—Management concerns. In Amber's case this had a direct impact on how each choose to implement stating that she was "*a lot braver and a lot more of a risk taker*" with her students than with her colleagues. For Amber there is much more at stake for her with her colleagues than with her students and she decides not to *risk* her professional self in front of her colleagues and doesn't use the instructional innovations to their full extent.

The present

Four years into the professional development program Rosie and Amber reported positive orientations to towards their implementation of innovations:

> Rosie: I feel confident on most things, a few things I wobble on, it may take years for me to get there but overall I feel pretty good. I feel at a pretty good level of confidence for most strategies and I mix and match and change things pretty quickly for the students I am working with if it's not going well. Things that require a lot of layering and are more complex I think I am still at that operational stage of checking, 'am I doing the right thing?' Some I am unconsciously competent in, they are like second nature to me. I feel good.
> Amber: I feel very confident being able to walk into a classroom and pull out a number of strategies and not worry about them. As I've progressed I haven't hesitated in using them regardless of the audience, in particular when I have been doing department professional development over the past few years. I enjoy bringing together all sorts of bits and pieces and having complete confidence knowing it's going to work and knowing that I am able to change and be responsive.

Both speak of a sense of '*confidence*', '*feeling good*' and '*enjoying*' what they are doing and talk of easily moving between innovations in order to meet student needs displaying Stage 5—Consequence concerns. However, things are not quite that

simple when implementing change as another of Rosie's stories about the present highlights.

> Rosie: Recently I got angry I felt like all the resources were going back into things like admin, documentation and compliance related issues. I got really, really despondent and then we got a new round of funding for the professional development so now I feel happy and encouraged. I have a sense that my insights were right this is a good thing. In a system as big as this one you go up and down with your emotions, you get encouraged, you go up and then plummet when it feels like you're losing it. It's just the normal flow.

Rosie's story illustrates they way in which system issues created blockages to her continued implementation of change. Her emotions of *anger* and *despondency* are in response to Stage 3 Management concerns—and relate to a lack of resources to support the professional development at her college. It is clear from this story that even 4 years into the program concerns from earlier stages of the SoC framework emerge. These are triggered by Rosie's interaction with the environment—the wider system and evoke negative emotional responses as she perceives the lack of resources as a barrier to her achieving her implementation goals. Her recognition of the journey of implementation in a large system as essentially an emotional one is significant. At the end of the 4 years she has accepted, "*you go up and down with your emotion…… It's just the normal flow.*"

The future

When speaking of their future both teachers displayed confidence affirming their continued use of their chosen innovations, and II at a broader level.

> Rosie: I believe in it. I'm also really worried about the quality of the education and training in my sector and I truly believe that we can do a much better job and this is one way in which we can do a better job. I have children and I want them in the best system that gives them the best opportunities to learn and this helps you do that.
> Amber: Even today I look back on the professional development with a lot of fondness and feel myself very successful and it's completely embedded in my practice now. I truly believe most of my learners if given a chance to do different things are happier. I want them to walk away getting something out of the day. It's in me and I just won't change. It excites me and it makes my life when I go out to work interesting, it's fun and much more interactive and enjoyable.

Both teachers talk of the process of change and the concepts and strategies of the II program now being firmly embedded in their professional practice, personal belief systems and educational philosophies and firmly tied to their sense of identity; as Amber claims, *'It's in me and I won't change'*. For Rosie her identity as a mother merges with that of her as a teacher to assert that the reason she will continue to do this is because, *'I want them in the best system that gives them the best opportunities to learn and this helps you do that.'* The internalisation of the change process into

becoming an integral part of the professional self is arguably one of the most important goals of educational change.

Situation: Stories about physical context

In addition to the personal journeys of implementing instructional change in their practice, Rosie and Amber also recount their emotional responses as they navigated their way through the wider systemic dynamics of the change process. These stories are situated in a number of different physical places and contain their feelings towards their interactions with system structures, procedures and hierarchies. Their change processes have similar beginnings. Both begin by recalling their experiences of attending the first II professional development workshops held in Perth. Both name '*excitement*' as the predominant emotion. Rosie cites social interaction with others and '*networking*' as a key reason why she was happy to attend and, '*having the space to do professional development, I didn't have to race somewhere do it and go back to my job*'. Amber also believes that the time and space away from the college was instrumental in her feeling positive and enthusiastic, '*we went to Perth for the workshops and got quite excited by that part*.' Both also spoke of the fact that by participating in the workshops they felt '*validated*' that what they were doing was right and that they were good teachers. This had a significant impact on the way both felt about the workshops and the way in which they openly embraced the content. During the first year of the program participants were required to use only the new instructional strategies in their own classrooms. When the group entered the second year of the professional development program they were then required to start to share their knowledge and skills with their colleagues in the colleges, by conducting short professional development sessions. As the change process began to radiate beyond the personal sphere and the college team, different stories and feelings begin to emerge.

> Rosie: So I went back from the workshop initially excited, enthusiastic, I wanted to do it and I want to do it all, then I hit the real world, suddenly resourcing issues hit home. You get back and have to start implementing this and I hit considerable blocks, like organising common professional development time, time for our team to meet. But with increasing lecturer workloads it didn't happen and I got very disappointed. There were supposed to be four of us in our college team but realistically there was only one or two of us really prepared to push this thing and I started to realise that there was a strategic element to this change thing.
>
> Amber: Because of my enthusiasm and belief I thought it would be easy because I didn't have to pretend, I believed in it. I had a great Director at that point, she is a great person and was very supportive of the program. She was quite a driver in helping us set it all up and start to embed it into qualifications, so my internal beliefs and levels of support were good. There's always going to be colleagues who cause you grief and don't want to do anything regardless, but even managers put up obstacles like timetabling, not having enough

lecturers, it's the same old story. It made me feel very annoyed, I actually got quite down about it.

Both teachers express feelings of annoyance and disappointment when faced with system challenges and blockages. When enthusiasm and positivity are not shared or given the opportunity to be expressed in a system, emotional responses quickly become negative.

Rosie: So you go to the professional development and get all excited and all enthusiastic, then you go back to the college, get blocked, get down, get despondent and then get over it. Something in you just keeps going, pushing, pushing, pushing. It's like a cycle, go back to college, hit reality, get cranky, get over it and you just keep moving along, there's quite a cyclic thing to it. I was really committed to it but used to get cross. I got quite angry. I didn't act out or anything but I would get very angry and also very distressed because I thought focus on administrative tasks and compliance issues, which I am part of, but were being favoured over the core business of teaching. Even though we had been given money by the department to fund our release from teaching duties it didn't happen. Both lecturers and students were suffering, I was cranky.

Although the two experienced similar system blockages and have almost parallel stories to tell to they both find their own personal ways of negotiating their way through the process. For Amber, a change in job was instrumental in giving her a different systemic perspective.

When I became a principal lecturer a few years later I could see that it was hard from the managers' point of view. I didn't understand what pressures management was under. They might actually be interested and supportive of what we were doing and see it as beneficial; they have the funding from the department but they've also got kids, they have places to fill. When you have a little campus out in a remote community one lecturer has to cover everything and then I come along and want that lecturer to come to professional development, something has to give. From their point of view money and profiling hours come first, not so much the skills and abilities of teachers.

Acknowledging the wider system constraints that other have to negotiate assists Amber to be more sympathetic towards her colleagues and the hurdles to implementing change at her college.

Stories about relationships

Both teachers speak passionately about the interpersonal relationships that supported them along their change journeys and the influence these relationships had on them emotionally. Rosie cites the program consultants as key individuals who helped her continue.

Rosie: I found them incredibly easy to relate to and that had a profound effect on me, I looked up to them and saw them as mentors. I respected them and

then found out that they were actually good people. They walked the walk and they talked the talk I found that incredibly important. For me they became people I trusted interpersonally and on a professional level. They made me feel supported made me feel like 'I can go back and do this'. I had a great deal of trust I trusted them both completely, as human beings. You could tell them your horror stories and you could say very easily that sometimes the things you tried actually hindered the students. I wouldn't necessarily do that with my colleagues, but they supported you and when you trust somebody you take risks and I did. When you take risks you grow and keep trying stuff. If you don't trust you're not going to tell them the truth, not take risks and not go back and do things in your classroom.

Amber talks about the importance of her relationship with her fellow college team member:

We would come back and forth to Perth and then after a while start to embed things into the curriculum. I was excited and getting a lot out of it mainly because I was working quite closely with Ann. We were both at the same campus, we both knew what we wanted and we were doing it with the same intent. I felt things were going well.

There have been lots of challenges along the way but having Ann there on my team to work with has been a huge help. Me and Ann, we had a vision for the college, this could be huge, really huge and really change the way we view, support and retain teachers, it kept us going.

The support of the department II project manager was also identified as a key relationship which Rosie felt supported her on a strategic and systemic level:

She helped us a lot to see the strategic vision. She kept reminding us that we had money and resources to support us. We got sucked into the micro college stuff and struggled with them but she sent emails to our directors and we talked to her a lot about small concerns. She was a person of continuity all the way through, with a strategic view but someone who had been a teacher, a manager and a project manager herself and that was a key thing for most of us. She had credibility she was there for us in my personal opinion that was crucial.

Discussion

The purposes of this study were to, (a) better understand the role that emotions play in mediating teachers' implementation of new instructional practices gained through professional development; (b) identify discernible patterns of emotions experienced by individual teachers on their professional learning journeys; (c) examine how teachers' emotional experiences align with theoretical understandings of processes of change; and, (d) consider implications for designers of teacher professional development programs.

The study found that emotions played a role in teachers' experiences of professional development and at times mediated their behaviours and interactions with others, the teachers reported that different emotions were experienced at different times and were influenced by context, situations and relationships and are best be described as cyclical.

The role of emotions

This study's findings corroborate the view that emotions play a role in teachers' experiences of change. Both teachers describe relationships with others and interactions with the wider system during the change process as responsible for activating their emotions. The teachers' emotional experiences were an integral part of their thought processes and their views of reality and in some instances mediated the way they behaved. For example, both teachers expressed unease regarding how their colleagues viewed them as they began to implement new instructional practices. Their discomfort led them to question their roles and status within their organisations. In Amber's case, anxiety and insecurity prevented her from trying new things with particular groups of students. Her response was triggered by past interactions with a staff member; this episode had such a strong emotional impact on her that it prevented her from taking risks and implementing things the way she would have liked, even though she admitted, presenting in a different way didn't work for her. Rosie also experienced similar feelings and said she was *"stressed"*, *"nervous"* and *"worried"* about what her colleagues would think of her and whether trying something new would hinder her students' learning.

At the end of the 4 years both teachers' in different ways spoke of how participation on the program had as influenced their personal belief systems and identities. Amber states;

> I look back on the professional development with a lot of fondness and feel myself very successful and it's completely embedded in my practice now……
> It's in me and I just won't change.

Rosie makes similar claims and makes direct reference to this internal state supporting her continued implementation of instructional change;

> I believe in it, it's like a belief system, if you have a strong belief system it stands up to the big and the little disappointments.

Both of these statements highlight the interconnection between emotions, personal belief systems and identity. Amber talks about a *"fondness"* for the program and states *"[I] feel myself very successful"* these positive emotional responses are talked of in connection to her internalisation of the program, *"It's in me and I just won't change"*. Rosie makes similar comments and explicitly refers to how the adoption of change during the professional development program has become an integral part of self—*"I believe in it, it's like a belief system"*. She considers this strong belief system to be a key factor in supporting her emotional resilience during the inevitable ups and downs of implementing change. Both of these teacher stories tell of how they have accepted change and integrated it into their personal belief

systems and identity and the emotional journey which has led them to this point is described by one teacher as *"cyclical"*. Amber states that her *"enthusiasm and belief"* helped keep her going along with supportive relationships from those also involved in the professional development program. Positive and negative emotions have both played a part in this journey but holding a deep seated belief about the value of the program and their work along with supportive relationships appear in this case to be instrumental in keeping the teachers going.

The literature often suggests that negative emotional responses often inhibit teachers' ability to fully implement change. In this study however, both teachers speak openly about their negative emotions and the impact they had on them, but then go onto share the ways in which they overcame these to continue their use. Their stories provide valuable insight into how they managed their negative emotions and what factors helped them continue. Both report that supportive relationships with others had an impact on their emotional state and their continued use. Rosie identifies her relationships with program consultants as instrumental in continuing with the change process, *"they made me feel supported made me feel like—I can go back and do this…. I trusted them both completely"*, in turn this empowered her to *"take risks"* in her classroom and *"grow"*. She also talks of the importance of her relationship with the departmental II project manager, stating, *"we talked to her a lot about small concerns"*. Rosie viewed her as *"a person of continuity all the way through"* who *"was there for us in my personal opinion it was crucial."* Amber also cites a positive relationship with her colleague Ann as a key factor in enabling her to manage, *"challenges along the way"*. Feeling supported by individuals in the wider system who were *"credible"* that the teachers could *"trust"* with a shared vision of the change process emerged as a critical factor in helping the teachers continue to implement change even in the face of seemingly insurmountable systemic blockages.

Strong emotional reactions were provoked when the teachers' encountered obstacles to their progress and development. When describing her attempts to implement new instructional processes at her college Amber describes feeling disappointed when confined by system restrictions such as conflicting timetabling commitments and a lack of staff and resources *'It made me feel very annoyed, I actually got quite down about it'*. Rosie's story is similar in that she described feeling *'cross'*, *'angry'*, *'distressed'* and *'cranky'* when faced with similar issues. Interestingly both teachers displayed the ability to mask or shield their true emotional feelings. Despite her emotions Rosie stated, *'I didn't act out or anything but I would get very angry'*. This is clearly an example of Hochschild's (1993) *emotional labour.* Rosie initially recognised her emotional reaction to the situation but then made a conscious decision *"not to act out"* or express how she felt in front of colleagues—thereby attempting to preserve her identity within the confines of organisational expectations. Hargreaves (1998) argues that emotional labour is an important and valuable part of teaching and has several positive implications such as protecting teachers from the often emotionally charged work of teaching and helping them to understand and control their emotions which could otherwise unsettle students and colleagues. Rosie's story certainly demonstrates her awareness of the interplay between the two and her conscious choice of how to manage the

situation. This is an interesting emotional landscape characterised by conflicts between an emotionally fractured self negotiating and interacting with system norms and expectations.

Both teachers speak of negotiating the change process within a fractured system, one where meeting administration demands conflicts with meeting the needs of teachers and students; interestingly both display different but equally successful ways of dealing with system issues. In manifesting emotional labour Rosie remained quiet but continued to *'chip away slowly'*. Amber's more sympathetic approach to dealing with managers allowed her to appreciate their situation and design alternative professional development opportunities for staff, more suited to the architecture of the system.

Patterns of emotions and relationships to change

Throughout the journey of professional change the teachers experienced a range of emotions in response to different tasks, contexts and relationships. Although emotions generally became more positive over time specific patters did not mirror a linear or staged configuration like that suggested by much of the change literature. Moreover, emotional responses were cyclical, often experienced and re-experienced at different stages of the change journey and influenced by physical context, situation and personal relationships. This type of patterning is what Scott and Sutton (2009) describe as "mixed" (p. 165). In their study on emotions, change and teacher professional development, Scott and Sutton argue that simply charting teachers' emotional responses to change on a continuum from positive to negative is unhelpful and negates the significance of the "emotionally intense process" (p. 166) of changing teacher practice. This mixed emotional patterning response does indeed characterise the journeys of professional change as we see emotions range from *worry, anxiety, uncertainty, disappointment* and *anger to happiness, enjoyment, confidence* and *enthusiasm.*

When viewed longitudinally—over the four year period of the professional development program a generalised pattern of affective responses emerges from the data. This aligns well with the SoC constructs and CBAM change literature which states that over time, as teachers change, they move from one stage of concern to another. For the teachers in this study this movement through the stages is accompanied by emotions. For example, Rosie and Amber both report *anxiety, tension* and *stress* when they first implemented new instructional processes or when they used the process with a new student cohort. When these emotions are reported they are in stories which relate to *self* and *task* concerns and directly align with SoC Personal and Management concerns. At the end of the program Rosie and Amber are more familiar with the use of the instructional innovations and they both report a mix of Consequence and Refocusing concerns accompanied by emotions such as *enjoyment* and *confidence.* However, there is not a seamless or sequential pattern of movement through the SoC; instead of teachers experiencing one stage at a time, in this study they simultaneously exhibit a combination of concerns, often accompanied by strong positive and negative emotions. For example, whilst her peak SoC is Stage 5 Collaboration, in her story about her present situation Rosie talks of her

anger and *despondency* at a lack of support and adequate resources illustrating her primarily Stage 3 Management concerns. Interestingly this does not seem to relate to Rosie's first peak score which is Stage 5 -Collaboration and second highest peak sore which is Stage O—Unconcerned. It would appear that Rosie is experiencing simultaneous concerns and moving up and down the stages is a typical process for her, describing it as, *"just the normal flow"*. She describes her emotional reactions to this *flow* as *"up and down"*, speaking of feeling encouraged when things go well and plummeting and *"feeling like you're losing it"* when things don't go well.

Further insights into the causes for this can be found when examining other stories through the lenses of *continuity* (time), *interaction* (relationships) or *situation* (physical context). It would appear that both the teacher's emotional responses to change can be charted as cyclical, dependent upon place, time and relationships. Both speak of feelings of apprehension and fear when first encountering a new phase of change in a new place, which then transition to *enthusiasm* and *excitement* and then to despondency when blockages occur, which then return to stoicism and enthusiasm. When reflecting on her experiences over time Rosie describes these emotional experiences as *cyclical*:

> It's like a cycle, go back to college, hit reality, get cranky, get over it and you just keep moving along, there's quite a cyclic thing to it.

In this case, orchestrated rationalistic models of change which assume that change occurs in a series of discrete steps are limiting when considering the emotional landscape of professional change. The reality is that change is played out at the complex and dynamic interface between individual emotions, identities, beliefs and systems, relationships and politics.

Implications for professional development programs

Educational change initiatives are complex and dynamic processes fuelled by the emotional investments individuals have in the people and the processes that surround them. It is important for designers of professional development to recognise that more often than not educational reform can be abstract and dispassionate, portraying change as a mechanistic journey on which individuals and organisations progress through a series of staged steps (Cross and Hong 2009). This negates a significant and vitally important dimension of change; the role emotions play in this process. The stories told by the teachers in this study show their experiences of change are highly personal and the process evokes emotional and behavioural responses. In some instances the emotions they experienced impacted their implementation of instructional practices. Knowledge of how emotions work to mediate and construct the change process and how these affect teachers can assist us in initiating and managing educational change more wisely, paying attention to the emotional needs of those involved and supporting them more effectively.

So what are the implications for reform efforts—how might future models of professional development affirm and subsume the emotional dimension of the change process? Findings from this study inform the following suggestions:

Teacher change through professional development needs a literature base which informs designers and policy makers of the importance of teacher emotions and it needs to make practical recommendations that can assist teachers on their change journeys. To be truly representative of the diverse and multifaceted nature of change this literature base needs to encompass multiple theoretical perspectives and methodological approaches (van Veen and Lasky 2005; Zembylas and Schutz 2009). We need to expand the range of scientific and inquiry based methods used to explore this area to build a deeper and more comprehensive understanding of the processes involved. Only then can these findings be used to develop a shared language and conceptualisation of the experiences, patterns and relationships involved in professional change at the individual and system levels.

Second, as we develop our understanding of the relationship between emotions and change researchers have a moral imperative to disseminate and act on empirical findings. Recent research in the area of teacher emotions and change had led us beyond the limitations of simply viewing teacher emotions as either positive or negative and providing advice to administrators and change agents about how best to deal with resistance and apathy (Hargreaves 1998). Given the current status of our understanding there is sufficient evidence to support the relocation of emotions from the private domain into the public. Professional discourses on educational reform and professional development need to recognise the pivotal role of emotions in the change process. Policy makers, administrators, consultants and teachers need to give voice to these issues, openly discuss the impact of emotions and build strategies and process which allow those engaging with change to openly share and explore their experiences.

Third, the emotional experiences of teachers involved in change processes need to be acknowledged by policy makers, administrators and those at the centre of professional development design. Findings from this study support those of others in that teachers experience a range of emotions as they negotiate and assimilate new learning into their teaching practice. It is important therefore to inform those who make the journey of change that the feelings they encounter are a natural part of the process (Schmidt and Datnow 2005). Time and space needs to be built into professional development processes for teacher dialogue to allow them to discuss feelings such as *fear, anxiety* and *worry* and to share *enjoyment* and *confidence*. The teachers in this study reported that supportive relationships with others involved in the program helped reduce feelings of isolation and helped support them on their journey. The concept of emotional safety and the importance of assuring it for teachers involved in reform processes are therefore of critical importance (Beatty 2007; Harris 2004; Lee and Yin 2010). In order to do this they need a shared language to articulate and negotiate their reality, and this can only be achieved by paying attention to the literature in this area and working collaboratively to exchange stories of experience.

Fourth, findings from this study highlight the vital importance of establishing and building relationships with others involved in the change process. Having close collegial interpersonal relationships based on mutual trust, respect and reciprocity was pivotal in enabling the teacher participants in this study to sustain the momentum of change even when faced with significant system restrictions.

Developing trust and holding a shared vision enabled the teachers to take risks and keep going when times were tough. Fostering and nurturing relationships built on trust, credibility and respect appear to be integral components of administering the change process effectively; components that change agents need to take seriously.

Fullan and Hargreaves ([1992](#)) state that teacher development, "must actively listen to and sponsor the teacher voice" (p. 5). Deliberately building time and resources into the design of change initiatives to allow frequent opportunities for sharing and exchanging 'voice', where teachers attend in teams, and are provided access to a number of supportive individuals at different levels of the system who hold the same vision is of critical importance to the successful implementation of change. This cannot be achieved unless deliberate changes are made to fundamental design of professional development programs during reform efforts.

This study has highlighted that even when change is facilitated and supported effectively at the system level it is clear that the interpersonal relationships and the emotional investments individuals make in them impact significantly on those who make the change journey. This study provides evidence for the need for designers of professional development programs to deliberately create opportunities for teachers to share—as Rosie states, their *"horror stories"*. It is only by placing teachers' voices firmly in the public domain and then using their emotional experiences to inform the ways in which we manage and implement educational reform, that we can work towards achieving inclusive and sustainable educational change.

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