Understanding Teacher Emotions:  
The Development of a Teacher Emotion Inventory

CHEN Jun-jun  
The Education University of Hong Kong
Abstract
This study investigates the emotions experienced by primary teachers in Hong Kong and Mainland China schools and develops a Teacher Emotion Inventory (TEI). Through surveying 254 teachers in a pilot study and 1,830 teachers in the main study, a 5-factor TEI is identified using exploratory and confirmatory factor analysis. This model portrays primary teachers enjoying positive interactions with students and colleagues, recognition from school, family and public, but experiencing negative emotions in relation to unfair treatment, competition among colleagues, imbalance of work lives, and pressure from society, policy, and educational change.

Introduction
In the research field of teaching improvement, interest has been continuously directed towards investigating the so-called ‘rational’ factors (e.g., teacher knowledge, skills, and capacities) that affect teaching practices in different contexts (Campbell, Kriakides, Muijs, & Robinson, 2004). However, important as these rational and fundamental aspects are, teacher emotions have often been ignored or underplayed (Crawford, 2011; Day, 2011) in teaching improvement initiatives.

Emotions are at the heart of teaching (Hargreaves, 1998). Schutz and Lanehart (2002) argue that “emotions are intimately involved in virtually every aspect of the teaching and learning process and, therefore, an understanding of the nature of emotions within the school context is essential” (p. 67). Schools and classrooms are complex emotional arenas where teachers constantly experience emotional demands from students, colleagues, parents and leaders (Cross & Hong, 2012; Sachs & Blackmore, 1998). To cope with these emotional demands, teachers are required to manage their emotions competently in order to successfully deliver teaching and smoothly interact with people around them (Yin & Lee, 2011). This need is particularly apparent during times of continuous educational reform since emotions always run high in schools during change (Day, 2011; Fullan, 2007; Schutz & Pekrun, 2007). The situation is aggravated by the vulnerability of teachers associated with reforms (Kelchtermans, 2005) and their
resistance to change, which inevitably triggers emotions (Bahia, Freire, Amaral, & Estrela, 2013; van Veen & Sleegers, 2006). Nowadays, continuous educational reforms are being implemented in Hong Kong and Mainland China (Cheng, 2009). Teachers in Hong Kong and Mainland China are experiencing a paradigm shift into more learner-oriented teaching and greater teacher accountability (Cheng & Mok, 2008; National Assessment of Educational Quality, 2008). These educational reforms in Hong Kong and Mainland China have unfortunately created high pressure and anxiety among teachers and exhausted their energy and time rather than enhancing teaching and learning in order to achieve teaching improvement (Cheng, 2009; Yin & Lee, 2012). This situation highlights the relevance of involving teacher emotions in teaching improvement initiatives in schools in Hong Kong and Mainland China.

This study primarily aims at exploring how school teachers perceive their emotions in schools of Hong Kong and Mainland China. A second aim is to develop and validate a Teacher Emotion Inventory (TEI) using a pilot quantitative study and a main quantitative study based on a prior qualitative study. The study offers potential contributions to the literature and practice of teacher emotions and teaching improvement. In addition, this study develops the first quantitative instrument on teacher emotion in Chinese contexts which may be adopted in teacher emotion studies in the similar context but also provide a reference for developing a Teacher Emotion Inventory in other contexts. Please note that comparison between teachers from Hong Kong and Mainland China was not an aim of this paper, but would present in a companion paper.

Teacher Emotions

Understanding emotion and teacher emotion

Schutz, Hong, Cross, and Osbon (2006) define emotions as “socially constructed, personally enacted ways of being that emerge from conscious and/or unconscious judgments regarding perceived successes at attaining goals or maintaining standards or beliefs during transactions as part of social-historical contexts” (p. 344). This definition of emotions is used in this study as it is grounded in the assumption that teacher emotional experiences not only occur in individual’s psychological activities, but also involve the emotional feelings of
others and interactions with the personal, professional, and social environment (Chubbuck & Zembylas, 2008). Farouk (2012) states that teacher emotions comprise individual teacher’s dynamic mental state level, ability of emotional self-regulation and response to exterior stimuli, and an approach of synthesis. Teacher emotions are not “internalized sensations that remain inert within the confines of their bodies but are integral to the ways in which they relate to and interact with their students, colleagues and parents” (Farouk, 2012, p. 491). Therefore, teacher emotions are relational with the environment, which means teacher emotions do not exist within an individual or environment independently, rather they involve person-environment transactions (Schutz et al., 2006).

**Classification of emotions**

Emotions have been categorized in many ways which could be summarized into dichotomous, multiple, and dimensional categories. The dichotomous classification of teacher emotions into positive and negative is common in the literature (e.g., Csikszentmihalyi & Larson, 1987; Diener, 1999; Larson, Richards, Ham & Jewell, 1990; Torquati & Raffaelli, 2004; Watson & Clark, 1988; Watson & Tellegen, 1985) though this is claimed to narrow down the nature of emotions or to be too straight-forward (Kristjansson, 2007; Sutton & Wheatley, 2003). Positive emotions generally include joy, satisfaction, pride and excitement, and negative emotions include anger, frustration, anxiety and sadness (Hargreaves, 1998; Kristjansson, 2007; Sutton & Wheatley, 2003). This dichotomous category has formed a fundamental basis for the latter research on emotion classification. In a more complex multiple categorization, Plutchik and Kellerman (1980) propose the wheel system to identify different human emotions. The diameter level represents how strong each emotion is while the whole circle indicates similarities among different emotions. In total, eight sections characterize eight basic emotions, set out as four pairs of opposites. Parrott (2001) describes a comprehensive list that organizes emotions into a dimensional tree structure where basic emotions are divided into secondary emotions, which are in turn subdivided into tertiary ones. Parrott (2001) states that many aspects of emotions are often dealt with separately although they can only be fully understood as a whole. Parrott’s tree structure, detailing a vast list of specific and superficial tertiary emotions and of deeper secondary and primary emotions, may prove to be a promising research instrument because it gives a full account
of human emotions and provides an insightful awareness of the way emotions are linked to deeper categories. Parrott’s tree structure of emotion will provide a framework to analyze teacher emotions in this study.

Building upon the findings of relevant research, this proposed project represents a preliminary study to understand teacher emotions and to develop a TEI for primary schools of Hong Kong and Mainland China using a mixed research method. Note that the researcher is interested in investigating primary and secondary school teachers’ emotions in both locations, however, only the primary school teachers were targeted in this study since teachers from the two levels may experience different emotions. The secondary school teachers will be investigated in the future research projects. Two research aims of this study are:

To investigate teacher emotions in primary schools in Hong Kong and Mainland China; and

To develop the Teacher Emotion Inventory.

Method

This paper encompassed a pilot quantitative study and a main quantitative study to respond to the two research questions using a previous qualitative study as a basis.

Sample

The pilot survey aimed at exploring initial patterns of how primary teachers perceived their emotions and validating the proposed TEI (see details in next section) using a small sample of teachers. A 55-item TEI was distributed to 300 school teachers in Hong Kong and Mainland China and 254 teachers responded with a response rate of 82%. The main study aimed at further exploring how primary teachers perceived their emotions and validating the TEI using a larger sample. A sample of 2,200 primary school teachers was approached and 1,830 valid questionnaires were returned, giving an excellent response rate of 83.2%.
Survey instrument and data analysis

This study has built on the work and learnt the ways of developing the instrument from the previous research. The TEI was developed for this study based on the literature review (e.g., Hargreaves, 2005), the related instrument review (Csikszentmihalyi & Larson, 1987; Diener, 1999), and the authors’ previous interview study (Authors, under review) using a content validity procedure (Beck & Gable, 2001; Lynn, 1986). A two-stage content validity procedure, the developmental stage and the judgment stage, will be employed to establish the TEI content validity in this study (Beck & Gable, 2001; Haynes, Richard, & Kubany, 1995; Lynn, 1986). The developmental stage focused on generating content items, identifying domains (dimensions), and classifying an item pool for each domain. This procedure generated a set of items relating to teacher emotions based on relevant literature, the authors’ previous qualitative study on teacher emotions using the framework of Parrott’s (2001) emotion tree theory. The judgment stage consisted of three steps to examine item validity and domain validity using a professional panel and two samples of teacher participants from the target sample.

Results

This section explained the results based on the two research aims of this study: Teacher emotions and the Teacher Emotion Inventory. However, they were interwoven rather separating from each other. The 26-item TEI model encompassed five inter-correlated factors with a good fit (χ² = 1777.35; df = 289; χ²/df = 6.15; p = .02; RMSEA = .062, 90% CI = .060 ~.062; SRMR = .058; TLI=.91; NFI=.91; CFI = .92; and gamma hat = .91). These five factors comprised two positive factors (Joy and Love) and three negative factors (Sadness, Anger, and Fear). Joy (consisted of seven items) focused on teachers’ joy on positive interactions with students, colleagues, and school leaders (See more items in Table 1). The Joy factor also covered teacher emotions resulting from support from parents and colleagues, and recognition from school leaders. Love (made up of four items) referred to teachers’ happiness because of the nature of the teaching job such as respect from others, stability, reasonableness of wage, and witness of children’ development. Sadness (likewise four items) described
teachers feeling unhappy because of ignorance of their efforts, unfair recognition or reward, students’ unfriendly attitudes. Anger (likewise four items) referred to teachers being annoyed about unfair blame from the public, shifting pressure from school and education bureaucracy, and ignorance of students. Fear consisted of seven items which were concerned on students’ problems, competition among colleagues, parents’ over-high expectations, and imbalance of life and work.

All item loadings were greater than .58, which indicated that the items were related to each other as separate factors in the model. The inter-correlations between the five factors ranged from -.23 to .76 with an average value of .34. These correlations indicate that the five factors had something in common but still varied in sufficient ways. The correlations also reveal that the same kinds of emotions (i.e., positive emotions: Joy and Love; negative emotions: Sadness, Anger, and Fear) were positively and highly correlated with each other but negatively and weakly correlated with the different kinds of emotions.

Multivariate analysis of variance (MANOVA) with main effects for sex, school location (Hong Kong vs Mainland China), educational background, and teaching experience was used to test whether teacher characteristics caused any statistically significant mean difference for the factors of teacher emotions. MANOVA found that four characteristics (i.e., school location, educational background, and teaching experience) had statistically significant mean differences in frequency with five factors of teacher emotions. Univariate analysis showed that the sex effect applied only to Fear; the school location effect applied to Joy, Love, Anger, and Sadness; the educational background effect applied to Love and Sadness. The teaching experience effect applied to Joy, Love, Sadness, Anger and Fear.

**Discussion**

This study generated a teacher emotions model which encompassed five dimensions, Joy, Love, Sadness, Anger, and Fear. Primary teachers from Hong Kong and Mainland China reported Joy as the most frequently experienced emotion, Love as the least frequently experienced emotion. The three negative emotions ranked in the middle. This model portrayed primary school teachers in
Hong Kong and Mainland China as enjoying positive interactions with student and colleagues, understanding and recognition from school, family and public, and stability of the nature of the teaching job, but having negative emotions regarding unfair treatment, competition among colleagues, imbalance of work and lives, and pressure or frustration from society, policy, and educational change. In other words, most pleasant emotions are related to classroom and collegial interactions, whereas the unpleasant ones are associated with educational policy, changes, and imbalance in teachers’ lives. Furthermore, the TEI was validated through a content validity procedure. The discussion will review the major findings on the teacher emotion model and seek to interpret these results in light of the contexts of Hong Kong and Mainland China.

Teachers in this study reported that they experienced pleasant or unpleasant emotions through interactions with students, colleagues, school leaders, and parents. As with the results from Cross and Hong’s (2012) study, teachers in this study were more likely to experience emotions with their students at the classroom level. The number of questions (10 out of 26, 38.5%) revealed the interactions between teacher and students. For example, teachers reported that they felt joyful when their students enjoyed their teaching, made progress, and showed care to them. These results are consistent with those from the relevant studies (Becker, Goetz, Morger & Ranellucci, 2014; Hagenauer & Volet, 2014). They also experienced pleasant emotions regarding the growth of students. Teachers talk about the joy they experience in their relationships with children, especially when the children are responsive, motivated, and responsible (Sutton & Wheatley, 2003). In Bahia et al.’s (2013) study, the experience of pleasant emotions by teachers is linked to student motivation. However, Linnenbrink (2007) argued that student motivation and participation in learning is complex. This may need further investigation to prove. By contrast, teachers experienced unpleasant emotions when students fired up at them or did not take responsibility for their study. It is noted that teachers’ worry about how to improve student achievement had the highest means score among the negative emotions (M=4.86, SD=1.22). This indicates that teachers most frequently experienced this worry in their professional practice. It might be caused by the increasing academic accountability of teachers in Hong Kong and Mainland China (Cheng & Mok, 2008; National Assessment of Educational Quality, 2008). The emotions identified by the teachers in this study aligned with the results from
Bahia et al.’s (2013) study which revealed that teachers are concerned about their students’ success and experience pleasant emotions in relation to student positive learning and performance. Teachers also worry about students’ lack commitment and responsibility for their study.

Secondly, interactions with colleagues and school leaders also affect teachers’ emotions. Nine out of 26 (34.6%) relate to emotional affiliations with colleagues and school leaders. Teachers feel positive (Joy) regarding collaboration with colleagues and gaining support from colleagues. This is consistent with the findings from the study by Erb (2002). However, competition between colleagues is an aspect of teachers’ Fear. These teachers did not mention much about the interaction with school leaders, but focused on the dilemmas of bureaucracy relating to leadership management (e.g., fairness, rewards, and shifting the pressure). These unpleasant emotions in relation to school leaders were triggered by educational change. Scott and Sutton (2009) argue that emotions are intense when teachers are required to change their practices. The increasing bureaucratic workload and professional identity dilemmas arising from the change lead to a growing professional vulnerability of teachers (Kelchtermans, 2005, 2011). This is especially the case in Hong Kong and Mainland China since teachers in Hong Kong are experiencing ‘bottle-neck syndrome effects’ due to the continuous reforms (Cheng, 2009) and teachers in Mainland China are experiencing professional dilemmas about rebuilding their professional identity and educational beliefs during the educational reforms (Gong, Duan, Zhong & Jiao, 2013; Lee et al., 2013). Lee and Yin (2011) also identified Chinese secondary teachers’ emotions during curriculum reform. The teachers in the study considered that it was relatively unimportant to express their inner feelings. They tended to be careful on controlling emotions and were obedient to the reform policies and aims. This kind of phenomenon reflects hierarchical relationships and collective culture in Chinese Society and schools (Yin & Lee, 2012). These findings align with other studies such as those by Bahia et al. (2013).

Teachers in this study also reported mixed emotions regarding parents and society. Similarly, Chen and Wang (2011) found that teacher emotions in Taiwan were influenced by some factors, such as parents’ sociocultural status, teachers’ moral purposes, teachers’ notions of professionalism, teachers’ political pretense, and the frequency to contact parents, when interacting with parents. Teachers in
this study experienced positive emotions when they believed that parents are responsible, support teachers’ efforts, and respect teachers’ professional judgment but felt pressure from high expectations. The positive emotion experiences in this study align with the findings from Lasky’s study (2005). However, unpleasant emotional experiences associated with high expectations and unreasonable blame from parents and society may be a feature of the Chinese context. In the traditional Chinese view, the teacher is regarded as ‘completely devoted to the job’. Chinese people have high expectations for their children’s education which results in a high demand for teacher responsibility. Unavoidably, this results in pressure on teachers. The teachers from Mainland China had extremely high unpleasant feelings towards society and public blame. From the previous qualitative interview study with teachers in Hong Kong and Mainland China, teachers felt sorrow about the decreasing social recognition and respect of the profession. It is even worse when the educational bureau and school leaders do not take the responsibility that they should take but shift pressure onto the teachers. The study by Zembylas (2005a) revealed that teacher’s emotional roles in teaching are historically contingent and teacher emotions are influenced by social power relations and values of social culture. This is also in line with the findings from other studies (Bahia et al., 2013; Jeffrey & Wood, 1996).

In addition to emotions resulting from interactions, personal and professional life imbalance was identified by these teachers as relevant. Teachers in this study reported five items causing unpleasant emotions relating to their personal and professional life. It seems clear, that teachers experienced tremendous pressures from heavy workload, unprepared working conditions, increased accountability and an unchanged system structure. They struggled with personal stress (e.g., younger babies, financial situation) and faced conflicting personal teaching ideologies and uncertainties of change. The reform innovations have imposed on teachers in Hong Kong and Mainland China have forced them to try to change their philosophy and practices in a high pressure system while existing structural elements and traditional cultures of many schools have remained unchanged. These create tensions and dilemmas in teachers’ lives, pose threats to teachers’ professional practice, identities and their sense of professionalism and risk the loss of their commitment (Schutz, 2014; Taxer & Frenzel, 2015). In other studies, scholars found similar results. For example, Sutton & Wheatley (2003) argue that
these may be caused by the open-ended nature of teaching, increased accountability and personal perfectionism. Bahia et al. (2013) identifies that teachers in Portugal reported strong personal and professional frustration. The study by Yin and Lee (2011) in the China context reports unpleasant emotions against a background of reform. It has proved that teachers’ personal and professional life balance will contribute to teacher effectiveness (Day, Sammons, Stobart, & Kington, 2007). Therefore, how to support teachers to maintain a balance between their personal and professional life should obtain attention from policy makers, school leaders and society.

In summary, the findings of this study offer empirical data to advance theoretical knowledge about teacher emotions which will in turn provide useful implications for regulating teacher emotions and developing teacher emotion intervention. The study will also contribute to global dialogues concerning teaching improvement through involving ‘emotive’ dimensions, which will help refine the teaching improvement literature and provide implications for teacher development. It will contribute to the development of a quantitative instrument, namely the Teacher Emotion Inventory which will provide a new quantitative means to investigate teacher emotions in future research. The Teacher Emotion Inventory, which presents a set of generic items of teacher emotions, might also provide a reference for developing a Teacher Emotion Inventory in other contexts. Understanding emotions triggered by vulnerability may constitute an opportunity for teachers to educate in a way that really makes a difference to students’ and teachers’ lives but also teacher effectiveness (Day et al., 2007; Kelchtermans, 2005, 2011). Emotions have great potential to strengthen not only interpersonal relationships experienced in the classroom and broader contexts, but also create opportunities for learning and teaching in various situations (Bahia et al., 2013).
References


Methods Research, 3(2), 151-171.


