

Dimensions of Stress, Burnout, and Resilience of Teachers in Social Development Schools in Hong Kong

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Abstract

In the past two decades, teacher stress and burnout have been topics of major concern in Hong Kong. The rapidity of changes to education policy, the diversity of education and curriculum reforms, heavy teacher workloads, and student misbehaviour have induced teacher stress and burnout, high-lighting the importance of teacher resilience, particularly in Social Development Schools. Local studies conducted to understand the features of and remedies to these phenomena have suggested important interrelationships between teacher stress, burnout and resilience, but the dimensions of those interrelationships have called for more systematic and probing study, particularly to identify the ways in which teacher stress and burnout may be managed to enhance teacher resilience.

This study thus aimed (1) to examine the stress and burnout conditions and their relationships with the resilience of teachers in Hong Kong Social Development Schools, (2) to understand how those teachers became resilient while teaching in the challenging school environment, and (3) to develop recommendations on how resilience among such teachers might be enhanced through the alleviation of stress and burnout.

The study involved two research approaches: survey questionnaires and semi-structured interviews. The whole population of Social Development School teachers were invited to complete questionnaire to measure their stress, burnout, resilience, and associated factors. Analysis of the questionnaire used descriptive statistics and correlations to ascertain the relationships among stress, burnout, and resilience. For the semi-structured interviews, 11 resilient teachers identified through the preceding survey were selected and volunteered to participate in individual, audio-recorded, interviews to share their resilience experiences. Transcriptions of the interview recordings were analysed to identify the significant dimensions of resilience, which were then used as the basis of the recommendations developed from the research project.

The questionnaire findings suggested that stress, burnout, and resilience were highly correlated. From the interview data, a wide variety of dimensions that might be managed to reduce burnout by building resilience and alleviating stress were identified.

It is suggested that the findings of the study might be used to contribute to the building of teacher resilience in initial teacher education and professional development programs for in-service teachers in Hong Kong. The findings also point to the

possibility of similar relationships between burnout, resilience, and stress in other educational jurisdictions.

Declaration

I, LO, Lai Kuen Brenda declare that this thesis, submitted in fulfilment of the requirements for the award of Doctor of Philosophy, in the School of Education and Professional Studies, Griffith University, is wholly my own work unless otherwise referenced or acknowledged. The document has not been submitted for qualifications at any other academic institution.

LO, Lai Kuen Brenda

21 July 2017

PREFACE

This research study was motivated by my personal exposure to the effects of stress on teachers with whom I worked in Hong Kong. I saw so many of them suffering the effects of burnout resulting from that stress, which, for many, led to their abandoning their teaching careers. And I recognised in others, and in myself, varying degrees of resilience to the effects of stress, allowing us to continue to contribute to the educational development of our young people. That exposure developed in me, a passion and a mission to identify the dimensions of that teacher resilience, particularly among those teachers who worked, as did I, with students who were emotionally and behaviourally challenged (EBC) in Hong Kong's social development schools (SDSs).

In 1985, I started my first ten years of teaching in a Hong Kong prevocational school, where all the students had been placed under the Government's then prevailing education system as being in the 'band five and bottom-ten' category. The majority of these students had been identified as academically weak and commonly with associated emotional and/or behavioural difficulties. Thereafter, I spent another seven years in a skills opportunity school: a special school in the education system for students with specific learning difficulties and emotional and behavioural challenges. Altogether, those first 17 years of teaching gave me a diverse, yet solid, experience in handling students' emotional and behavioural challenges and their special educational needs.

During these 17 years, besides teaching, I also involved in administrative work at a senior management level, including as the head of a counselling team to provide counselling services to students and as the head of a staff development team to provide professional development advice and planning to school colleagues. I also took charge of two Quality Education Fund projects respectively in life-skills education curriculum development and adventure-based counselling for students' growth. Like many teachers in Hong Kong, my workload was extraordinarily high.

During my last year with that skills opportunity school in 2003, I was appointed as the school principal at a critical transition period during which that kind of special school was taken by the authorities as having finished its role and was then to be closed down under government's new education trajectory towards an inclusive education. I was assigned leadership of the unpleasant wrapping-up work, including down-sizing

and restructuring, which, with my endless working schedule made me overwhelmingly stressed.

Indeed, in early 2003, I almost burned out, although afterward I recovered in which my previous training in counselling and positive thinking helped me greatly. I rebuilt my self-confidence and belief that teacher education would be my lifelong profession through which I could share my experience.

I then joined the Teaching and Learning Centre of the Hong Kong Vocational Training Council (VTC) with a major responsibility to develop in-service teacher training programs for VTC lecturers and instructors. The VTC managed a series of vocational education programs in its training centres and youth colleges targeting non-engaged youth and at-risk students who had low learning motivation, emotional and behavioural problems, and low academic performance. That initiative necessitated the teachers receiving new training in managing learning diversity and student misbehaviour.

I then worked another three years (from 2006 to 2009) teaching at the Department of Educational Psychology, Counselling and Special Needs (EPCL) of the Hong Kong Institute of Education (HKIED), now the Education University of Hong Kong. My major teaching area related to in-service teacher training programs to support the prevailing inclusive education policy in Hong Kong. During those years of teaching at the HKIED, I met many teachers typically experiencing stress and burnout, but also resilience.

In 2009, I re-joined the VTC and took charge of the non-engaged youth project, the ‘Teens Project’, and was also appointed as the Principal of a senior secondary school in the VTC. One of my main duties was to transform this school into a new youth college for non-engaged youth with special educational needs, and students from non-Chinese speaking backgrounds.

Within the 25 years of my educational work in teaching, school administration, and teacher training in vocational education and special education sectors, I had many opportunities to observe the emotional challenges and needs of teachers, the varied school cultures and the social aspects of schools, especially in those schools with EBC students. At different schools, I witnessed a wide variation in teachers’ communication with and care for one another and how they responded to increasing pressure from all directions: school administrators and parents, government bureaus, education and

curriculum reforms, public media, the external environment with unstable and uncertain political and economic changes, and the day-to-day behavioural problems of students in school.

As their peer and mentor, I listened to my colleagues' stories. I started to think and question the situation that teachers were facing. I paid more attention to my surroundings, public media reports and scholarly research studies in Hong Kong, particularly those about teacher stress and burnout. I became aware of two quite different teacher responses: some teachers stayed with their profession while some others opted to leave. I then decided to explore that difference and to share my accumulated experience from my time in special education, to undertake this PhD study with the intention of exploring underlying reasons that could help to explain such different teacher responses and to provide some positive recommendations to various parties in the education system based on those research findings.

Acknowledgements

Completing this study required the support and encouragement of many people through the years, from the course of which I see the faces of many people I would like to acknowledge.

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I would like to acknowledge the anonymous contributions made by the EBC teachers of the Social Development Schools who responded to the long questionnaire and who found time for the interviews, and to thank the seven school principals who supported me in completing the survey and who provided insights into the study.

A number of close friends, especially Professor Cynthia Leung, Dr May Chan, and Mrs Lesley Bagnall, their caring and opinions through the years have encouraged me to stay the course to the end of this study. For their warm and constant support, I want to thank them all.

And last but not the least, thanks to my husband for his earnest encouragement and support throughout the whole period of my study, and my beloved grandson, daughter and son-in-law, for their understanding and caring of me.

My ending thought is a reflection for trying to make sense of what I have accomplished. I feel uneasy about this ending, not the sense of relief that order should provide at the moment of closure. I am aware that my research efforts during this study

may have been limited by my level of research skills. Without any doubts, those skills have been much more enhanced by this study, but the fact is that I remain an evolving and growing researcher. As I look toward to the days ahead, I see that much knowledge is yet to be discovered.

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List of Terms and Abbreviations

The following terms and abbreviations used in this thesis are seen as calling for explanation in this list.

Banding: From the 1990s, schools in Hong Kong were streamed into five bands according to the academic performance of students. Band One schools were considered to be the best performing, with good progress being made across all measures. At the opposite end of the scale, Band Five schools were considered to be ‘weak relative to others’ and in need of more support. Students in secondary schools were placed into ‘bands’ according to their performance in school-based assessment at the end of their primary education, and there was a considerable amount of competition among students for places at the most prestigious Band- One schools. This five-band system was changed to a three-band system from September 2001 in order to minimise the labelling effect.

Band Five bottom 10 percent schools: In Hong Kong, from the 1990s, schools were streamed into bands One to Five according to the academic performance of students. Those schools labelled as Band Five, in the bottom 10 percent, were the most under-privileged schools, with students of the lowest academic performance and the highest rate of challenging behaviour.

Band Three bottom 10 percent schools: In Hong Kong, from 2001, schools were streamed into bands One, Two and Three according to the academic performance of students. Those schools labelled as Band Three, in the bottom 10 percent, were the under-privileged schools with students of the lowest academic performance and the highest rate of challenging behaviour.

Benchmarking: Under Education Reform policies, a benchmarking initiative was put into place in teacher registration from 2001 to ensure that all language teachers in Hong Kong had the necessary competence to teach Chinese (Putonghua) Language or English Language.

CEG: Capacity Enhancement Grant – in the 2005/06 school year, the Government committed to providing schools with long-term support by making CEG a recurrent provision. Hong Kong schools could make use of this grant to relieve teachers’ workloads, for example, by using the funds to employ more Teacher Assistants, provide workshops, or buy training and services for teachers’ professional development.

CTW: The Committee on Teachers' Work – an independent committee set up by the HKSAR Government in February 2006 to look into teachers' work and related issues, with the following terms of reference:

- To examine the nature and arrangements of the work of teachers in public sector schools.
- To study the workload of teachers.
- To recommend measures to enable teachers to engage in effective educational work.
- To recommend measures to reduce pressure on teachers.

DSS: Direct Subsidy Schools – schools that receive government funding but have also been allowed to charge fees, subject to the requirement that they fully or partially subsidise places for a set proportion of their intake. These schools generally follow the local curriculum, but enjoy greater freedom over staffing, class size and admissions. Schools in the DSS scheme are largely subject to market forces and in some cases the competition between them has led to more innovative teaching practices.

EBC: Emotional and Behavioural Challenges – used interchangeably with the terms 'Emotional Behavioural Disorders' and 'Emotional Behavioural Difficulties' (EBD).

EBC schools: Emotionally and behaviourally challenged schools – used interchangeably with the term 'Social Development Schools' (SDSs). The population of students in the SDSs are those with EBC and other specific learning difficulties.

EBC students: Students with EBC and other specific learning difficulties.

EBC teachers: Teachers working in the SDSs and teaching the EBC students.

EBD: Emotional Behavioural Disorders/Difficulties – used interchangeably with the term 'Emotional Behavioural Challenges' (EBC) in this study.

ED: Education Department – renamed the Education and Manpower Bureau (EMB) in 1997.

EDB: Education Bureau – formerly the Education and Manpower Bureau (EMB) until 2007.

EMB: Education and Manpower Bureau – the Education Department (ED) before 1997, renamed after July 2007 the Education Bureau (EDB).

ESR: External School Review – an extension of the Quality Assurance Inspections (QAI) to schools.

HKFEW: Hong Kong Federation of Education Workers – a trade union of teachers in Hong Kong of which about 10 per cent of Hong Kong teachers are members.

HKPTU: Hong Kong Professional Teachers' Union – the major trade union of teachers in Hong Kong of which 90 per cent of Hong Kong teachers are members.

HKSAR Government: Hong Kong Special Administrative Region Government, commonly referred to the Hong Kong Government.

Inclusive Education Policy: An education policy, formally launched in 1999, emphasising equal education for all students, with one of the characteristics being that students are placed at the same school and class, regardless of any differences in academic performance and special educational needs.

LPA: Language Proficiency Assessment – a benchmarking measure to assess English Language teacher and Chinese (Putonghua) Language teachers' language proficiency, introduced in 2001.

LSG: Learning Support Grant – to support inclusive education in mainstream schools.

NSS 334: The NSS 334 Scheme under the New Academic Structure (NAS) for senior secondary education and higher education in Hong Kong: three years of junior secondary, three years of senior secondary, and four years of university education in a first degree.

PDC: Professional Development Course – introduced from the 2007/8 school year, with courses of duration from 30 hours (basic level) to 60 (advanced level) and 90 (thematic level), designed as teachers' continuing professional development to support the inclusive education policy. Teachers attend these courses after school hours to enhance their skills and knowledge in catering for students with Special Educational Needs (SEN).

Prevocational School: A type of school set up in the 1980s for students with interest in vocational skill areas; the students were usually academically weak and grouped as the Band Five bottom 10 per cent type. Prevocational schools were phased out in the 2000s and restructured to mainstream secondary schools.

PS: Practical Schools – a type of school for EBC students with a normal IQ but an inability to fit into the mainstream education system. They served as a counterpart of

the Social Development Schools (SDSs), being phased out and/or restructured into mainstream secondary schools when the Inclusive Policy was launched in 1999.

QAI: Quality Assurance Inspection – operated by the EDB from 2000 to complement schools' self-evaluation process and to strengthen their accountability in the provision of quality education. A quality assurance inspection (QAI) or external review (ER) by EDB helped identify the strengths and weaknesses of individual schools to give impetus to the school's self-improvement process. A team of inspectors would visit a school (usually every 5 years) to undertake a full inspection of its management and operation.

QEF: Quality Education Fund – a competitive funding scheme to encourage schools to engage in self-initiated educational innovative projects.

SBA: School-based Assessment – part of the curriculum reform and was first proposed in the Reform Proposals for the Education System in Hong Kong, published in September 2000. It refers to assessments administered in schools and marked by the students' own teachers. SBA marks awarded were counted towards students' public examination results of the Diploma of Secondary Education (DSE).

SDS: Social Development School – a type of special school for maladjusted students with emotional and behavioural challenges (EBC). In Hong Kong, there were seven SDSs with very limited student places (maximum 300 for each school), students were enrolled through EDB's central referral system, and the waiting lists are very long.

SLD: Specific Learning Disabilities/Difficulties.

SOS: Skills Opportunity School – secondary schools for students with specific learning difficulties (SLDs) and limited intelligence. By 1999, there were six SOSs operating. But three were phased out when the Inclusive Policy was launched in 1999, while the remaining three were re-named 'Mainstreamed Skills Opportunity Schools'.

TSA: Territory-wide System Assessment – an assessment administered at the territory level (geographically meant around the Hong Kong territory) by the EDB from 2004, providing schools with objective data on students' performances in Chinese Language, English Language, and Mathematics at the end of Key Stages 1-3. TSA reports provide information about students' strengths and weaknesses against specific Basic Competencies. They are to help schools and teachers enhance their learning and

teaching plans. TSA data also help the Government to review policies and provide focused support to schools. But the labelling effects of the TSA aroused public upset and were blamed for adding pressure on students and teachers in learning and teaching. The TSA began at the P3 level in 2004. In 2006, all students at P3, P6 and S3 took part in the TSA. A total of some 220 000 students from 708 primary schools and 452 secondary schools took part in the TSA in 2006.

Chapter One: Introduction

Background to the Study

The early 2000s have been times of great disappointment and discouragement in Hong Kong education: times in which much of the blame from society for the perceived failing of education fell on teachers. The remarkable and rapid education and curriculum reforms (Cheng, 2009a; CTTHK, 2006; Lai & Lo, 2007; Lam, 2008b; Tse, 2005) inevitably placed teachers in the position of experiencing considerable controversy, offense, misfortune, and blame (DAB, 2006).

The effects of prolonged negative occupational stress on teachers have had far-reaching costs and consequences for Hong Kong: a society in which schools, teachers and students have all suffered. Teachers have been feeling frustrated with the criticism, the lack of public support, the bureaucratic interference, and the enormous pressure put on them from the inclusion policy promoted by the Education Bureau (Chong, Forlin, & Au, 2007). Teachers became increasingly demoralised, often experiencing burnout (Chen, 2007). Many teachers began feeling that the satisfaction they derived from teaching was no longer commensurate with the stress that they had suffered as teachers. Many left the teaching profession completely, and some persisted but lost the enthusiasm and commitment they once had (Choi & Tang, 2009).

Much international research literature has explored teacher stress and burnout, and has identified teaching as a highly stressful profession (e.g., Smith, Brice, Collins, Matthews, & McNamara, 2000; Smylie, 1999). High levels of occupational stress were known from research to lead to a state of burnout and withdrawal from the profession, with a high percentage of teachers leaving within the first five years (Ingersoll, 2001; Scheopner, 2010). Teaching had been shown to be a high stress profession by many studies in Hong Kong (e.g., Chan, 2002 & 2005b; Chan, Chen, & Chong, 2010; Chan & Hui, 1995; Lau, 2002; Mo, 1991; Tang & Yeung, 1999).

Research Problem

In Hong Kong, the incidence of teacher suicide in the past decade had aroused concerns in relation to teachers' stress and burnout (Chang, 2009; CTW, 2006; DAB, 2006; HKEC, 2006; HKFEW, 2006; HKPTU, 2008). Over the past two decades, notions like stress, burnout, and teacher attrition have been discussed commonly among Hong

Kong's educators. However, most studies of teacher stress have focused on individual, personal traits, and have adopted a deficit approach to address the problem, typically focusing on 'what's going wrong?'. Somehow, teachers' failure to cope with stress has been defined as a personal weakness rather than an organisational deficiency, the promoted solutions to which have been criticised as largely therapeutic and remedial in nature (HKFEW, 2006; HKPTU, 2003 & 2005).

Moreover, studies in Hong Kong specifically related to teacher stress and burnout have been very limited and confined largely to reports on the stress-related problems and concerns of teachers. Some studies have contributed to identifying possible stressors of teachers in Hong Kong, identifying such factors as heavy workload, student discipline, education reforms, and managerial accountability. However, there has been no obvious and sufficient effort yet made to study the possible relationships among teacher stress, burnout and resilience that might be able to identify well-grounded solutions. Accordingly, the research study here reported was exploratory nature.

Research Aim

This study aimed to explore the possible relationships among teacher stress, burnout and resilience in special education schools in Hong Kong, with a view to providing recommendations on how teacher stress and burnout might be moderated through building resilience.

Research Questions

Within that overall aim of the study, the study sought to explore possible dimensions of teacher resilience to identify possible targets for alleviating teacher stress and burnout.

In order to achieve that end, five research questions were established:

1. What are the stress, burnout and resilience levels of the EBC teachers?
2. How are the stress, burnout and resilience factors correlated?
3. What are the possible individual dimensions of EBC teacher resilience?
4. What are the possible organisational dimensions of EBC teacher resilience in the social development schools?
5. What might school teachers, leaders, administrators, teacher educators, and policy makers do to enhance teacher resilience in Hong Kong?

Significance of the Study

The study sought to contribute to knowledge of the nature and importance of teacher resilience (Beltman, Mansfield, & Price, 2011; Chan, 2010a, 2010b; Gu & Day, 2013; Hong, 2012) and, by identifying the dimensions in teacher resilience, it sought to identify how the teacher resilience might be enhanced from both individual and organisational perspectives, through different strategies to promote resilience as a moderator of stress and burnout, and to enrich the knowledge base of teacher resilience, both in Hong Kong and internationally.

Structure of the Thesis

This study is here presented in eight chapters. Following this introductory chapter, Chapter Two presents the context of the study as relating to teachers' worsening situation and their intensifying levels of stress and burnout. That context has included changes to the educational system and related education reforms, education reforms in relation to teacher stress and burnout, the Government's approach to inclusion and special education policy, and the demographic situation with a reduction of student numbers.

Chapter Three presents a selected review of relevant local and international research literature and research into stress, burnout and resilience.

Chapter Four explains and justifies the research methodology used in the study. It progresses from an overview of the conceptual framework, the research approach, and the research methods, through the selection of participants, questionnaire development, data collection procedures, interviewing details, data analysis and ethical considerations.

Chapters Five and Six present the results of the study from the questionnaire and interview data analyses. The questionnaire data analysis includes analyses of the stress, burnout and resilience levels of the EBC teachers and the correlations among stress, burnout and resilience factors. The analysis of interview data includes the identification of individual and organisational dimensions of teacher resilience.

Chapter Seven discusses and interprets the findings of the study presented in the previous two chapters, relating them to existing research-based knowledge and drawing out the contributions of this study to furthering that body of knowledge.

Chapter Eight provides a summary, then, of the conclusions drawn from that discussion, followed by recommendations flowing from those conclusions for different categories of education personnel, before presenting some considerations for future research studies in resilience.

Chapter Two: Context of the Study

This chapter explains the cultural context of the study. It focuses on the recent Hong Kong educational reforms of importance to the study, those reforms in relation to school teacher stress and burnout, Government policy on special education and inclusion, the declining student population as a source of teacher stress in Hong Kong, and the relationship of that context to the present study.

Recent Education Reforms in Hong Kong

With the sovereignty of Hong Kong returning to the People's Republic of China in 1997, the new Hong Kong Special Administrative Region (HKSAR) Government sought to invest more resources in education to make it one of the progressive and remarkable areas in the light of Hong Kong's new identity (EC, 1997 & 2000).

The government sought to change Hong Kong's educational system to align it more with international education systems, under the banner of the New Academic Structure (NAS) (EC, 2001 & 2006). Before launching the NAS, secondary school students had a total of seven years of secondary education (five years in secondary plus two years in matriculation) to prepare them for further study in tertiary education. Under the NAS (also '334') model there were to be three years of junior secondary education, three years of senior secondary education, and four years of tertiary education) (EC, 2003 & 2006). The New Senior Secondary (NSS) school system was introduced to implement that model at senior secondary school level (EC, 2003). The NSS system was formally introduced in the 2009/10 school year, with its NSS accompanying new public examination (EC, 2006), the Diploma of Secondary Education (DSE). Their announcement aroused general discussion and some criticism from different stakeholders in education for what were seen as the unrealistic expectations entailed in the NSS (Cheng, 2009a; Leung, Mak, Chiu *et al.*, 2009; Lai & Lo, 2007; Tse, 2005).

According to the Hong Kong's Education Commission (EC), the objective of the NAS was to provide twelve years of free and universal primary and secondary education to all students attending public sector schools in Hong Kong (EC, 2006). Associated with the NAS had been related education reforms, including significant changes to subjects in the school curriculum, the language of instruction (the government strongly advocating teaching in the Chinese mother language, re-labelling

many schools from English language instruction colleges to Chinese language schools) (EC, 2005), and the method of student performance assessment (moving away from its examination orientation towards whole-person development), identified as ‘Student Holistic Development’, comprising Moral and Civil Education, Intellectual Development, Community Service, Physical and Aesthetic Development, and Career-Related Experience (EC, 2000 & 2006).

The related education reforms have also resulted in a change in Hong Kong’s system of ‘banding’ schools. All public schools in Hong Kong had traditionally been banded by the Government on the basis of the aggregated performance of their students in the public examinations. With the NAS, the banding was changed from five bands to three bands in September 2001 (EC, 2000).

Education Reforms in Relation to Teacher Stress and Burnout

A number of studies (HKFEW, 2006; HKPTU, 2003, 2004, 2005) in the years of 2003-2006 revealed that approximately 25 per cent of Hong Kong school teachers were in a state of depression and burnout, and that over 50 per cent had an intention to retire or to resign earlier than they otherwise needed to. The studies of Cheng (2009a & 2009b) and Leung, Mak, Chiu *et al.*, (2009) also showed that the topmost source of teacher stress was that of the education reforms. Teachers in Hong Kong in the past ten years have thus been experiencing a particularly high level of stress and work pressure generated by education reforms.

The City Think Tank Hong Kong (CTTHK, 2006) provided further findings relating the influence of ‘change’ or ‘reform’ in Hong Kong education policy to teacher stress. It concluded that more than 80 per cent of the teachers were under stress (58 % stressed, 22 % very strongly stressed) and that stress overwhelmingly arose from rapid and frequent changes of education policy (74 %), from subsequent additional administrative work (53 %), and from handling problem student behaviour (52 %).

In Hong Kong, the education and curriculum reforms had also led to changes in the working atmosphere (Chan, Chen, & Chong, 2010; Chang, 2009; Cheng, 2009a). ‘Value-adding’ and ‘redundancy’ became fashionable terms in education and had often been used by authorities (Cheng, 2009b). There has been a common belief among teachers that they are under constant pressure, not only to deal with student misbehaviour, but also to ‘value-add’ to themselves, working hard, not only at school, but also after school, by attending as many professional development courses as

possible, 14 hours a day, 6 days a week (HKPTU, 2008). With such a climate of change and uncertainty, teachers have been paying the price with increasing levels of stress (Chan, Chen & Chong, 2010).

Thus, in the past two decades, teacher stress has been identified as associated with the series of education reforms. The implementation of the management concepts of accountability and quality assurance in school education, the changing practices and requirements in school curriculum and assessment, and the marketisation of education, have all intensified the climate of keen competition and induced teacher stress (Chan, *et al.*, 2010; Chang, 2009; Cheng, 2009a; Tse, 2005).

New methods of student performance assessment (including school-based assessment and 'Territory-wide System Assessment') and the quality assurance practices (including 'Quality Assurance Inspection' (QAI), 'External School Review' (ESR), and 'School Self-evaluation' (SSE)) in Hong Kong's education system have been seen particularly as contributing to high levels of teacher stress (HKEC, 2006; HKFEW, 2002 & 2006; HKPTU, 2003 & 2005; Tse, 2005).

A new system, new demands, and new standards have all appeared concurrently in Hong Kong's education reforms. The 'Language Proficiency Assessment' (LPA) and the mandatory requirements of continual professional development (CPD) have also contributed to teacher stress (CTTHK, 2006; HKEC, 2006; HKPTU, 2003 & 2005). While facing heavy workload in school, teachers also have had to spare energy and time for their CPD and the benchmarking examinations of the LPA. With the changes in curriculum content and assessment requirements, teachers have faced heavy workloads in lesson preparation and assessment planning for the new curriculum. Together with the additional paperwork associated with ESR and SSE, these factors have served to diminish and damage enthusiasm for teaching (CTTHK, 2006; HKEC, 2006; HKPTU, 2003 & 2005). The NSS curriculum has also received a lot of criticism for being too 'packed' and too diverse, while remaining examination-oriented (CTTHK, 2006; HKEC, 2006; HKPTU, 2003 & 2005). By putting extra effort into understanding and to following the NSS curriculum, teachers and students have been under heavy workload and high pressure, and experiencing high levels of stress (CTW, 2006; HKPTU, 2008). The rising suicide rates of both teachers and students in the past ten years – although unexplained – have also created alarm in the education sector (CTW, 2006; HKPTU, 2008).

The reforms have also contributed to an intensification of the climate of keen competition among subsidised schools, and between private schools and direct subsidised schools (Cheng, 2009a; Tse, 2005). Market forces have come to operate in the education system, as has been illustrated through the comparative presentation of school public examination results, annual reports and quality assurance inspections, external school reviews, benchmarking exercises, increased parental rights (including parents on the school board) and changing contract terms of teacher employment, all of these have been seen as contributing to high levels of teacher stress. The education reforms have thus led to wide-ranging changes in the workplace cultural context of school teachers.

Government Policy on Special Education and Inclusion

The education reforms have included changes in special education, to a policy of educational inclusion education. This policy involves an emphasis on equality of educational experience, with all students being placed in the same mainstream schools and classes, regardless of any differences in academic performance and special educational needs (Forlin & Lian, 2008; Tsui, Sin & Yu, 2007). It has further contributed to stress, not only in teachers, but also students and their parents (Forlin, 2001; Forlin & Rose, 2010).

In 1999, inclusive education was promoted as a pilot scheme in some primary and secondary schools in Hong Kong (Chong, Forlin & Au, 2007; Tsui & Tse, 2006). In the 2002/03 school year, another pilot scheme to provide a two-year extension was introduced (Tsui & Tse, 2006). After the two pilot schemes, an inclusion policy was formally launched and applied to most mainstream schools in Hong Kong (Tsui & Tse, 2006).

Mainstream schools, especially those in the lowest school band have had to admit a large number of students identified as having special educational needs (SEN) in classrooms (Forlin & Sin, 2010). These SEN students have also been generally perceived as experiencing associated Emotional and Behavioural Difficulties and Challenges (EBD & EBC), Attention Deficit and Hyperactive Disorder (ADHD), Specific Learning Difficulties (SLD), and Autism (Forlin & Sin, 2010). The intake of these SEN students to mainstream schools for teachers without prior and related training and planning has abruptly raised the stress levels of teachers (Forlin, 2001). In 2011, the situation became worse, all 460 public primary and 400 public secondary

schools in Hong Kong were requested to adopt a Whole School Approach (WSA) to supporting students with special educational needs, including those with mild intellectual, physical or sensory disabilities (Forlin, 2013).

Although the underlying philosophy of inclusion has been supported by most teachers, the pace of change in putting the policy into practice has been too fast and the policy too radical (Chong, Forlin & Au, 2007; Forlin, 2001). Most teachers from the mainstream schools have not been prepared to adapt to this inclusion policy. With the growing numbers of SEN students in their schools, they have become stressful in their daily teaching (Forlin, 2001).

The policy change has also meant that the existing special schools have made redundant. With the integration of SEN and EBC students into mainstream schools, the number of students in special schools has dropped drastically, particularly in the Practical Schools and Skills Opportunity Schools (Tse, 2005). Teachers in these special schools had been facing the threat of school closure and redundancy, which significantly affected their morale and commitment to education (HKPTU, 2003 & 2005). Accordingly, through a series of policy decisions, the special schools for students of emotional behavioural challenges (Practical Schools) and specific learning difficulties (Skills Opportunity Schools) were either closed down or re-constituted (Table 2.1).

The Declining Student Population as a Source of Teacher Stress

Since 2003, there has been a progressive decline of new student numbers, due to demographic changes in Hong Kong families (HKPTU, 2003). The falling birth rate over the last decade led to primary year-one student numbers dropping from 60,214 (2003) to 49,914 (2013), and secondary year-one student numbers from 81,555 (2003) to 51,649 (2013) (EDB, 2003 & 2013). This drop in the number of primary and secondary newly enrolled students has been reflected in cuts to the number of classes in schools, the closure of schools, and teacher redundancy (HKPTU, 2013). In the 2012/13 school year, there were 517 primary schools, 459 secondary schools and 60 special schools in Hong Kong (EDB, 2013). Whereas in the 2015/16 school year, the number of schools had dropped to 454 primary schools, 393 secondary schools and 60 special schools (EDB, 2016). And the trend of school closure and teacher redundancy was projected there to continue at least until 2020. These changes have contributed to a widespread feeling of job insecurity among teachers in Hong Kong (HKPTU, 2013).

Table 2.1***Changes in Special Education Policy in Hong Kong***

Year	Changes and Arrangements
1990s	<ul style="list-style-type: none"> ▪ Integration of SEN students into mainstream schools. ▪ Use of technology in special education. ▪ Recognition that there was a need for CPD for teachers to support the Inclusive Education Policy.
1994	<ul style="list-style-type: none"> ▪ Establishment of the Committee on Special Educational Needs. ▪ Planning to set up more Practical Schools and Skills Opportunity Schools for students with EBC and SLD.
1997	<ul style="list-style-type: none"> ▪ Introduction of the policy on Inclusive Education.
1999	<ul style="list-style-type: none"> ▪ Re-location of SEN students with SLD & EBC back to mainstream schools under the Inclusive Education Policy.
2003	<ul style="list-style-type: none"> ▪ Piloting of a new funding model (NFM) in 25 mainstream primary schools. Under the NFM, schools were provided with an Intensive Learning Support Grant for including a certain number of SEN students, and were requested to adopt a whole-school approach to support every student with SLD or SEN.
2003	<ul style="list-style-type: none"> ▪ Piloting of the Project on Special Schools and Resource Centres to empower mainstream schools in handling SEN students. As the Centres were neither school-based nor sufficiently supportive, usage rates were very low.
2004	<ul style="list-style-type: none"> ▪ Piloting of the NFM extended to 160 primary schools.
2004	<ul style="list-style-type: none"> ▪ Full mainstreaming of all the Practical Schools (for EBC students) into ordinary secondary schools. ▪ Phasing out of four out of the seven Skills Opportunity Schools (for SLD students): either closed or converted into ordinary schools; the remaining three becoming ‘ordinary (skills opportunity) secondary schools’ from the 2005/06 school year onward. ▪ Migration back to mainstream schools of a large number of EBC and SLD students (mainly to the band 3 schools under the new banding system).
2010	<ul style="list-style-type: none"> ▪ Involvement of over 200 primary and secondary schools were in the Inclusive Education Scheme. ▪ Provision of a Learning Support Grant (LSG) to each school to support teaching and learning of the SEN students. With the LSG, schools were to deploy and pool their resources flexibly and adopt a Whole School Approach to provide support to their SEN students.

Relationship to the Study

It was from that context that I developed this study, as an attempt to contribute some knowledge to our understanding of the relationships between teacher stress, burnout and resilience in Hong Kong special education teachers and, through that knowledge, to offer informed suggestions as to how such stress and burnout may be moderated by building teacher resilience in the future.

Chapter Three: Literature Review

This chapter reviews existing international and local research literature related to stress, burnout and resilience, with a particular focus on studies of the experience of teachers and on research undertaken in Hong Kong. The review was undertaken to inform the nature and focus of this study, its implications for the study being used to develop a conceptual framework and research questions to structure the study.

The review is presented here in three main sections focusing, in order, on stress, burnout and resilience. Within each of those sections are subsections focusing on the nature of the concept and aspects of the informing research. A final concluding section presents the implications drawn from the review to inform the present study.

Stress

Nature of Stress

Individual stress has been variously defined and is commonly recognised as an unpleasant emotional state (Kyriacou, 1987 & 2001; Liu & Onwuegbuzie, 2012) that occurs when there have been prolonged, increasing or new pressures that are significantly greater than the individual's coping resources (Dunham, 1992; Weiss, 1999). Research has revealed that individuals have been taken as being normally motivated to cope with stress, but the reactions to stress and its adaptive value vary from one person to another, and also from time to time, even for the same individual. The amount of stress a person can withstand has also been found to be dependent on their level of tolerance (Selye, 1984). Lazarus and Folkman (1984) considered stress to be determined by a person's appraisal of a specific encounter with their environment. This appraisal has been found to be shaped by individual factors including commitments, vulnerabilities, beliefs, and resources, and situational factors, such as the nature of the threat and its imminence. As Schafer (1996) suggested, stress might be seen as a dynamic process in which the human body and mind actively respond to such encounters, engaging in efforts to adapt and restore balance or homeostasis; such adaptation, then, being an ongoing process.

Billingsley (2004b) suggested that the consequences of human stress include health problems and reduction in work performance effectiveness. Stress has also been found to be a factor in employee attrition, absenteeism, and low morale. Excessive

stress might prove damaging to psychological and physical health through triggering emotional and physical strain that might be devastating (Billingsley & Cross, 1992).

High Levels of Stress in Teaching Profession

Teaching has been found to be a stressful occupation, with demands from administrators, colleagues, students, and parents compounded by work overload, shifting policies, and a lack of recognition for accomplishments (Greenglass & Burke, 2003). Teacher stress, defined as the experience of negative emotions resulting from a teacher's work (Kyriacou, 2001), is inversely related to teacher self-efficacy (Betoret, 2006; Skaalvik & Skaalvik, 2007; Yoon, 2002) and is positively related to poor teacher-pupil rapport and low levels of teacher effectiveness (Abel & Sewell, 1999; Kokkinos, 2007).

The outcomes of teachers' work-related stress are serious and may include burnout, depression, poor performance, absenteeism, low levels of job satisfaction, and eventually, the decision to leave the profession (Betoret, 2006; Jepson & Forrest, 2006). Teacher stress may have devastating consequences both for the teachers and the quality of education. Some possible consequences of teacher stress frequently identified in recent research studies include reduced teacher self-efficacy (Klassen, Wilson, Siu *et al.*, 2013), lower job satisfaction (Collie, Shapka & Perry, 2012), lower levels of commitment (Klassen *et al.*, 2013), higher levels of burnout (Betoret, 2009), and increased teacher attrition (Skaalvik & Skaalvik, 2011a). However, teacher stress is not inevitable in challenging conditions. Teachers in schools in which there is good communication among staff and a strong sense of collegiality express lower levels of stress and higher levels of commitment and job satisfaction (Kyriacou, 2001).

Teacher stress has also been studied in quantitative research, where it has been defined and indicated differently by individual researchers. Some researchers have defined stress in terms of perceived stressors in the school environment – such as disruptive student behaviour – and have measured stress by asking teachers about the sources of their stress in the school environment (Collie, Shapka & Perry, 2012; Gilbert, Rose & McGuire-Sniekus, 2014; Klassen & Chiu, 2010, 2011; Klassen *et al.*, 2013).

In an analysis of leavers and stayers among school teachers, Hong (2012) found that the leavers had weaker self-efficacy compared to stayers and that they reported receiving less administrative or supervisory support which had attributed to their stress.

Teachers' intention or motivation to leave the profession has been found to be strongly predicted by job dissatisfaction and by stressful working conditions (Liu & Onwuegbuzie, 2012; Weiss, 1999). Skaalvik and Skaalvik (2011a) also found that supervisory support and positive relations with colleagues predicted lower motivation to leave the profession, mediated through stronger feelings of belonging and higher job satisfaction.

Kyriacou (2000, p.3) described teacher stress as "the experience by a teacher of unpleasant negative emotions, such as anger, frustration, anxiety, depression and nervousness, resulting from some aspects of their work". Teacher stress has been also perceived as an interactive process occurring between teachers and their teaching environment, involving excessive demands being placed on them and resulting in physiological and psychological distress (Forlin, Douglas, & Hattie, 1996; Woods, 1999). In Hong Kong, teacher stress has also been defined specifically as an unpleasant emotion rising from teachers' concern that they could not cope with excessive pressures or other types of demand being placed upon them (HKPTU, 2004 & 2010).

Teaching in the 21st century has been suggested to be one of the most stressful professions (Chan, 2010; Chen, 2007; Kyriacou, 2001; Hughes, 2001; Marshall, 2013; Milburn, 2011). Many teachers leave school for non-retirement reasons. One reason for leaving the teaching profession, from an organisational perspective, is stressful working conditions such as ineffective school leadership, non-supportive school climates and increased levels of accountability (Cheng, 2009a; Gallant & Riley, 2014; Scheopner, 2010; Weiss, 1999). Indeed, recent research in different countries indicates that teaching is a particularly stressful occupation and that teacher stress is an international phenomenon (Chan, 2002; Liu & Onwuegbuzie, 2012; Montgomery & Rupp, 2005). Research undertaken by the Hong Kong Federation of Education Workers (HKFEW, 2002 & 2006) showed similar results, wherein two-thirds of the respondents considered teaching to be stressful.

Studies in the UK (e.g., Jarvis, 2002) have reported that teaching has been seen as hard, poorly paid, and low in public esteem. Consequently, it appears that such representations of the profession as a highly stressful occupation have been seen as having a detrimental effect on teacher recruitment and retention (Billingsley, 2004b; Guarino, Santibañez & Daley, 2006). In Hong Kong, from the 1990s onwards, the phenomenon of teacher stress has been receiving increased attention and concern.

Studies have been undertaken to examine the prevalence, level, and major sources of work stress among school teachers in Hong Kong (Chan, 1998; Chen, 2007; Chan, Chen, & Chong 2010; DAB, 2002; HKEC, 2006; HKPTU, 2004; Hui & Chan 1996; Lau, 2002; Leung & Lee, 2006). The combination of the findings across these studies reveals that the phenomenon of teacher stress has been widespread. In Hong Kong, public awareness of the work stress problem of teachers has also been heightened with the increasing occurrence of suicide cases amongst teachers (Lo, 2003).

Moreover, apart from teachers themselves, it is generally perceived that work stress can also adversely affect students and the learning environment (Hargreaves, 2003). In addition, stress problems of teachers are believed to generate increased teaching costs. Thus, it is evidently worth studying this issue as a way of contributing to knowledge that may be used to minimise the adverse effects of teacher stress on students, schools, and teachers themselves. Research into the issue of teacher work stress is clearly important for management and teachers to work together to improve the working environment and conditions towards combating such stress.

While to some extent, mild stress can be beneficial with a slightly positive impact in producing motivation and alertness (Selye, 1984), teacher stress to a very large extent has been reported basically to have negative impacts to teachers, which can be especially intensified by an acute environment with difficult students (Center & Stevenson, 2001; Klassen & Chiu, 2011; Pang, 2012). The negative impact of teacher stress has been perceived generally as the major reason leading to many teachers leaving their profession in education (DAB, 2002; HKPTU, 2004, 2010; Ingersoll, 2001; Ingersoll & Smith, 2003; Leung & Lee, 2006). However, this common phenomenon has been found to have some exceptions, where high levels of teacher stress have not been associated with teachers opting to leave their schools. Some studies have suggested explanations such as the differences in the teaching context (Chan, 2006; Howard & Johnson, 2004; Pithers & Soden, 1999).

Sources of Teacher Stress and their Impact across Different Teaching Contexts

There have been various classifications of stressors relating to context. Fontana and Abouserie (1993), in their study of teacher stress and personality, grouped sources of teacher stress into four major factors: student misbehaviour, poor working conditions, poor staff relations, and time pressure. Kyriacou (2001) also found that the main sources of teacher stress were unmotivated students, maintaining discipline in the

classroom, time pressures and workload demands, the great number of changes within the school system, exposure to evaluation by others, conflicts with administration and school management, lack of school equipment, and poor working conditions.

Travers and Cooper (1996), in their study of teacher stress, found that there were numerous factors contributing to teachers stress, including work overload, lack of resources, lack of job achievement, poor professional relationship with colleagues, inadequate salary, student misbehaviour, difficult interactions with parents, expectations of other staff, longer time in directly interacting with students, poor student-teacher ratios, poorly defined program structures, and a constant responsibility to others. Jarvis (2002, 2008) proposed three broad areas of causal factors in teacher stress, including (1) systemic factors such as birth rates, demands from the Government, social support among colleagues, and the leadership style of the principal; (2) factors intrinsic to teaching, like workload, role overload, and issues of classroom management and discipline, and (3) factors of cognitive vulnerability, such as self-defeating beliefs, low efficacy beliefs, and unproductive coping styles.

These conceptualisations of teacher stress have led researchers to explore aspects of the work situation that might be experienced as stressful. Such aspects have often been termed ‘stressors’ (Betoret, 2006) or ‘job demands’ (Hakanen, Bakker, & Schaufeli, 2006). A number of potential stressors have been identified in empirical studies, severally from individual teacher’s perspective and school organisational perspective, including student misbehaviour or discipline problems, time pressure and workload, poor student motivation, student diversity, conflicts with colleagues, lack of administrative support, and value conflicts (e.g., Betoret, 2009; Fernet, Guay, Senécal *et al.*, 2012; Friedman, 1995; Hakanen, Bakker & Schaufeli, 2006; Klassen & Chiu, 2011; Kokkinos, 2007; Skaalvik & Skaalvik, 2009, 2011a).

There have also been a number of studies into the drivers of teacher stress – the stressors – using a variety of classifications, some of which have prioritised the relative importance of individual stressors for their impact to teachers (Betoret, 2006; Forlin, 2001; Kokkinos, 2007). Kyriacou and Sutcliffe (1978b) distinguished between physical job-related stressors (e.g., large numbers of pupils in the class), and psychological job-related stressors (e.g., poor relationships with colleagues). They classified stressors into four categories:

Student Misbehaviour: including noisy students, difficult classes, difficult behavioural problems, impoliteness, non-acceptance of teacher authority, class indiscipline, poor attitudes to work, lack of interest, poorly motivated students, punishing students, trying to uphold or maintain values and standards, low student ability, availability of inadequate disciplinary sanctions, and student groups of diverse needs.

Poor Working Conditions: poor career structure, lack of promotion opportunities, low salary, shortage of equipment and resources, lack of recognition for good teaching, lack of participation in decision making, large classes, lack of recognition for extra work, poor facilities, too many supervisory duties, demands on after school time, and lack of effective consultation.

Time Pressure: insufficient time to do the work expected, too much administrative and paper work, lack of time to prepare lessons and complete assessment, too rapid a pace in the school day, preparation of students for success in examinations, lack of time to spend with individual students, no time to take a break between lessons, and lack of time for further study.

Poor School Ethos: inadequate disciplinary policy in school, lack of consensus on minimum standards, uncertain attitudes and behaviour on the part of the principal, lack of effective consultation, poor attitudes of colleagues, and students' poor attitudes in study.

Across different school settings, some researchers have identified a diversity of common stressors that include, among others, student misbehaviour and discipline problems, poor motivation to work, heavy workload and time pressure, role conflict and role ambiguity, conflicting staff relationships in school administration and management, and pressure and criticisms from parents and the wider community (Center & Stevenson, 2001; Dunham, 1992; Hastings & Bham, 2003; Travers & Cooper, 1996). Teacher stress can thus come from a variety of sources and contexts. The main sources of stress experienced by a particular teacher are considered to be unique to him or her because this also depends on the complex interactions between personal traits, values, skills, and circumstances (Montgomery & Rupp, 2005).

Other studies of teacher stress have found workload and role overload to be significant sources of teacher stress (Schults, Wang & Olson, 2010), arising when a teacher has to cope with a number of competing roles within their job. Teachers' work

is becoming increasingly complex, and the nature of teachers' roles has contributed to the early departure of some teachers (Cheng, 2009b; Ingersoll, 2001 & 2003). While some studies have used the broad term 'work conditions' (Ashiedu & Scott-Ladd, 2012; Buchanan, 2010), others have identified specific examples of these conditions, such as workload (Buchanan, Prescott, Schuck, *et al.*, 2013; DAB, 2006; Lai & Law, 2010), increased administrative tasks (Handal, Watson, Petocz, & Maher, 2013), and increased levels of accountability (Cheng, 2009a; Hepburn & Brown, 2001; McCarthy, Kissen, Yadley, *et al.*, 2006). The conditions of teachers' employment within which job insecurity has also been a widely acknowledged problem (Buchanan, 2010; Hargreaves, 2003; HKPTU, 2010).

Recently, several of these identified stressors were found in two semi-structured interview studies. Shernoff, Mehta, Atkins *et al.* (2011) interviewed 14 urban US teachers and noted some main sources of teacher stress, for instance: disruptive student behaviour, excessive workload, student diversity, limited resources and support, school-level disorganisation, and overwhelming accountability policies. In an open-ended interview of 34 Norwegian teachers and former teachers, Skaalvik and Skaalvik (2015) also found seven categories of stressors that were identified by more than half the teachers: disruptive student behaviour, workload and time pressure, student diversity and working to adapt teaching to students' needs, lack of autonomy, lack of shared goals and values, problems and conflicts related to teamwork, and lack of status.

Chan *et al.*'s (2010) study of work stress of Hong Kong teachers found that educational reforms and the shift to requiring teachers in school to play multiple roles (including those of subject teacher, class teacher, committee member, discipline teacher, guidance teacher, student counsellor, leader and mentor, change engine, organiser, middle manager, colleague, designer, salesperson, and promoter) were significant stressors. The problem being emphasised was not with the long list but the possible conflicts of these roles and the related work ambiguity whereby teachers had to fulfill multiple roles of being active curriculum makers and gatekeepers of student academic achievements while ensuring overall school effectiveness. As Chan *et al.* (2010) commented, it was with this dilemma that schools and teachers had been struggling in their daily work since the implementation of curriculum reform.

Some studies of the sources of teacher stress have had also addressed issues specifically from an organisational perspective (Kyriacou, 2011; Siu, Lu, & Spector,

2012) whilst Travers and Cooper (1997) had previously found that most teachers mentioned the lack of government support, lack of information about changes, and the constant changes in and demands of the new curriculum as their greatest sources of stress. Similarly, in Hong Kong, it has been found that the rapid education reforms with inadequate support from the organisational level contributed to teacher stress (CTTHK, 2006; HKPTU, 2005). Cheng (2009a) remarked that there was external pressure to teachers from the increasing concern with educational accountability and the expectations of quality education provoked by the wave of educational reforms. Chan *et al.* (2010) added that Hong Kong teachers' stress came from their immense pressure in their workplace, requiring them to accomplish quality teaching in large classes with students of diverse educational needs, and to play various roles, like counsellor and psychologist, to support students of widely different needs, including those who were emotionally disturbed, intellectually gifted, mildly handicapped, or slow learners.

Studies in Hong Kong relating to the sources of teacher stress (e.g., Chan *et al.*, 2010; Chan & Hui, 1995; Cheng, 2009a; HKEC, 2002 & 2006; HKPTU, 2003 & 2004; Hui & Chan 1996; Mo, 1991; Pang, 2012) have generalised numerous factors contributing to teacher stress across different school contexts. These factors include work overload, lack of resources, lack of job achievement, poor professional relationship with colleagues, job insecurity, student misbehaviour, difficult interactions with students' parents, expectations of other staff, lengthy times interacting directly with students, high student/teacher ratios, poorly defined program structures, and the constant responsibility for others.

From previous literature, stressors impacting on teachers have thus already been identified. Those studies have provided ample resources to enlighten and enrich this study, both in establishing its conceptual framework and in identifying an appropriate research methodology necessary to address the purpose of the study, particularly in the design of the research questionnaire to establish the specific levels of EBC teacher stress in the context of Hong Kong SDSs.

Teacher Stress in Relation to Student Misbehaviour

Cross and Billingsley (1994), in their study of special education teachers' intention to stay in teaching also found that teachers who faced more student behavioural challenges usually reported greater stress than other special education teachers, and had higher levels of desire to leave the profession. They suggested that work stress,

specifically that relating to student behavioural challenges, played a significant role in the loss of EBC teachers, who were at greater risk of dropping out of the field when compared to teachers in other special education areas. Recently, in some studies of teacher stress, students' problem behaviours was considered as a significant source of teacher stress (Howard & Johnson, 2004; Kokkinos 2007).

Center and Callaway (1999) in their earlier study of work-related stress and personality in teachers of students with emotional and behavioural disorders (EBDs) found that teachers of EBD students had higher stress levels than other teachers. In another study by Center and Stevenson (2001), increased workload (from paperwork and monitoring of students' misbehaviour), inadequate facilities and personal resources, time pressures, and student factors (anxiety, misbehaviour, motivation, and poor attitude) were perceived to be the underlying stressors associated with teaching EBD students. Job-related stress, including specifically student misbehaviour, appears to play a significant role in influencing EBC teachers to leave the profession. It has also been speculated that stress-related factors have contributed to the decrease in the number of people entering EBC teaching (Pullis, 1992; Woods 1999).

In one survey among UK teachers, one of the factors related to teachers' desire to leave the profession was pupils' behaviour and discipline problems (Brown, Davis & Johnson, 2002). The continual exposure to challenging behaviour from students can seriously deplete teachers' emotional and physical resources, leading to self-doubt, loss of satisfaction from teaching and poorer quality of teaching (Yoon, 2002).

Many factors could contribute to high levels of teacher stress, but Geving (2007) specifically suggested student behaviour as the most important stressor for teachers. In her study of secondary-level teachers, she found 10 specific student behaviours to be statistically significant contributors to teacher stress. In reducing order of importance, they were: hostility towards the teacher, not paying attention during class, noisiness, lack of effort in class, coming to class unprepared, hyperactivity, breaking school rules, harming school property, hostility toward other students, and lack of interest in learning. Geving (2007) concluded, then that poor student behaviour was the main contributor to stress in secondary teachers. Behaviour management was the most frequent challenge of the school context. Howard and Johnson (2004) interviewed teachers in different schools who had experienced student violence and disorder, such as the throwing of furniture, punching, kicking and biting. Similarly, Skaalvik and

Skaalvik (2011a) found that discipline problems were indirectly related to teachers' motivation to leave the profession.

Studies conducted by the Hong Kong Federation of Education Workers (HKFEW, 2002) and the Democratic Alliance for Betterment of Hong Kong (DAB, 2002) into teacher stress in Hong Kong revealed similar findings, with student behavioural problems being ranked the topmost stressor in the HKFEW study, and the next most in the DAB study. Similarly, Jin, Yeung, Tang and Low (2008) found classroom management and student discipline problems were teachers' second major sources of stress after workload. Generally, most studies of teacher stress in Hong Kong have pointed to student problem behaviour in the classroom as the major stressor (HKEC, 2002; Ho, Leung, & Fung, 2003; Lau, 2002; Pang, 2012).

A study by the Hong Kong Education Convergence (HKEC, 2002) of the problem behaviour by secondary students in Hong Kong revealed the significance of student misbehaviour, which, from teachers' perception, attributed to 'disrupting classroom discipline' and 'against teacher's instruction'. Another similar study by the Hong Kong Professional Teachers' Union (HKPTU, 2003) also reported that problems in students discipline and misbehaviour had contributed to a large extent to teachers' desire to leave the profession.

In fact, students' behavioural problems have been an increasing concern of many education researchers. The study of Ho *et al.* (2003) into the disciplinary problems and stress among Hong Kong higher secondary school teachers found that disciplinary problems were one of the major reasons for secondary teachers leaving their profession. And such student behavioural problems were typically in inclusive classrooms of mainstream schools that were required to include a wide spectrum of special educational needs students. Chong *et al.* (2007) argued that students with learning difficulties were likely to have associated behavioural difficulties and that students with needs on the autism spectrum were likely to display challenging behaviour.

Student behavioural issues have increasingly been recognised in public discourse. The scenario in Hong Kong has been that of EBC students in the Practical Schools and Skills Opportunity Schools speedily migrating back to mainstream schools as a result of the government's implementation of the inclusive education policy and the change of special education policy from 2005 onward. It suggests that mainstream teachers have been facing higher levels of stress related to EBC students with challenging behavioural

problems. Apart from the special schools (practical schools and skills opportunity schools), EBC students from social development schools have also been migrating back to mainstream schools when they reached Primary Six or Secondary Three levels under the new schooling design. Consequently, many mainstream frontline teachers believed that they were spending a disproportionate amount of time dealing with behavioural problems compared with the time they spent on instruction and academic activities (Chan, 2006; Choi & Tang, 2009; Chong *et al.*, 2007; Chong & Ng, 2011). As Chong and Au (2008) commented, Hong Kong's typical situation of increasing numbers of EBC students migrating back to the mainstream, contributed to the failure to address student misbehaviour, creating a learning environment where academic activities were interrupted, curriculum content was not covered, teacher authority was undermined, and opportunities for students to learn were significantly diminished (Chan *et al.*, 2010; Chong & Au, 2008). In the light of the significant impact of student misbehaviour on teachers, there have been an increasing number of studies examining teacher attitudes to inclusive education and EBC teaching (e.g., Chong *et al.*, 2007; Chong & Ng, 2011; Pang, 2012). Some studies have found that mainstream teachers have been suffering from high stress levels, resulting in numbers of experienced teachers opting for early retirement and novice teachers leaving the profession in the early career years (HKFEW, 2006; HKPTU, 2004 & 2005).

Although there have not been many studies in Hong Kong related specifically to EBC students, Ho *et al.* (2003) and Pang (2012) have reported similar findings – that work stress related to student misbehaviour is one of the key reasons reported by EBC teachers for their changing their jobs – although that stressor has not been discussed in any further depth. Contrary to the situation in the mainstream schools, EBC teachers have persisted in performing their duties and few of them have indicated their intention to leave the teaching profession (SDS Annual Report, 2009). Thus, this difference (intention to persist or leave the teaching profession) between teachers in the mainstream and in the SDSs is an interesting topic and contributes to the purpose of this study.

Burnout

Nature of Burnout

Burnout was defined by Freudenberger (1974) as describing health-care workers who were physically and psychologically burnt out. When people experienced burnout, they

would feel that their physical and mental resources had been exhausted. According to Freudenberger (1974), burnout arose because individuals wore themselves out by excessively striving to reach some unrealistic expectation.

Burnout was seen as developing gradually over time as a result of excessive demands derived from the task structure. It has also been defined as a feeling of exhaustion and fatigue, of being unable to shake off a lingering cold, of suffering from frequent headaches and gastrointestinal disturbances, of sleeplessness, and of shortness of breath (Friesen & Sarros, 1989; Maslach, Jackson, & Leiter, 1996). Burnout was conceptualised as resulting from long term occupational stress (Jennett, Harris, & Mesibov, 2003) and was often described as a syndrome of emotional exhaustion, depersonalization, and reduced personal accomplishment (Brouwers & Tomic, 2000; Maslach, Jackson, & Leiter, 1996).

Ling (1995) argued that burnout occurs most often in helping professions such as teaching, legal practice, medicine, nursing, social work, and psychotherapy, and that it is a long-term negative result accumulated from work stress, as a type of chronic response to cumulative, long-term work stress. Similarly, Hasida and Keren (2007) indicated that burnout is associated with people whose job is servicing in nature: giving care to others.

Teacher Burnout and Related Implications

According to Howard and Johnson (2006), the causes of teacher burnout can be attributed to poor student-teacher relationships, time pressure, role conflict, poor working conditions, lack of control/decision making power, poor collegiate relationships, feelings of personal inadequacy and extra organisational pressures. Leung and Lee (2006), in a study of teacher burnout in Hong Kong, found that the exhaustion dimension of burnout predicted teachers' intentions of leaving the profession.

Burnout, specifically in teaching, has been perceived to have direct association with low morale, absenteeism, higher frequency of tardiness, work alienation, physical and emotional ill-health, leaving the profession, and early job retirement (Pines, 2002; Pines & Aronson, 1988; Skaalvik & Skaalvik 2011a). Thus burnout can be costly to educational providers, with schools losing many of their experienced teachers. Hughes (2001), suggested that teacher burnout should not be considered a minor issue in education, because it has led to significant negative changes in teachers' attitudes and effort, reflected in their reduced personal responsibility for outcomes, greater self-

interest, less idealism, emotional detachment, work alienation, and reduced work goals: “Such negative shifts cannot be ignored, especially when burnout is frequent, intense and prolonged, because it has the potential to negatively affect both teachers’ professional development and students’ learning” (Hughes, 2001, p.289).

Ioannou and Kyriakides (2007), in their study of vocational teacher burnout, indicated that when teachers experienced burnout, they would evidence several symptoms, such as physical depletion, feelings of disappointment, dogmatism about their practices, and a rigid reliance on structure and routine. Their attitude toward others would also be affected, with poor social and interpersonal relationships with colleagues and students. Teacher burnout is an issue that can have extremely detrimental effects on both teachers and students.

Burnout would affect teacher’s perception of their students, studies found that burned-out teachers generally provided significantly less information and less praise to their students. They became less receptive to their student’s ideas and they interacted with their students less frequently. Teachers affected by burnout were also likely to be less sympathetic to students, to have a lower tolerance of classroom disruption, to be less inclined to prepare adequately for class, and to feel less committed and dedicated to their work (Farber & Miller, 1981; Tatar & Yahav, 1999). Burke, Greenglass, and Schwarzer (1996) saw such burned-out teachers as experiencing depersonalisation, when they developed negative, cynical, and sometimes callous attitudes toward their students, their students’ parents, and colleagues.

Burke *et al.* (1996) added that teacher burnout had a significant negative impact not only on the teachers themselves, but also on their efficacy in conferring knowledge to students and on the overall effective functioning of schools. In Betoret’s (2006) study of stressors, self-efficacy, coping resources, and burnout among secondary school teachers in Spain, he confirmed that prolonged occupational stress in the teaching environment would lead to teacher burnout. He also identified stressors that led to burnout: work overload, role ambiguity and conflict, inadequate resources, poor working conditions, lack of professional recognition, lack of effective communication, staff conflict, lack of involvement in decision-making, and student misbehaviour. Betoret (2006) found those occupational stressors to be associated with higher levels of burnout, distress, depression, and absenteeism.

The Maslach Burnout Inventory

While there is no single core component of teacher burnout, most empirical work in the area has embraced the three-component structure suggested by Maslach and Jackson (1981 & 1984), referred to as the Maslach Burnout Inventory (MBI), in which burnout is viewed as a multidimensional construct having three dimensions: emotional exhaustion, depersonalisation, and reduced personal accomplishment. These three dimensions have been widely used and accepted by burnout researchers locally and internationally (Chan, 2003, 2005b, 2007; Chan & Hui 1995; Chang, 2009; Iwanicki & Schwab, 1981; Lau, 2002; Lau, Yuen, & Chan, 2005; Leiter & Maslach, 2005; Schwab & Schuler, 1986; Schwarzer, Schmitz, & Tang, 2000; Shirom, 1993).

The first dimension of 'emotional exhaustion' is characterised by the depletion of a teacher's emotional resources and a feeling of being emotionally overextended. The second dimension of 'depersonalisation' consists of developing a cynical, callous attitude or excessively detached response to students, parents, and colleagues. The dimension of reduced personal accomplishment identifies feelings of being ineffective in working with students and in fulfilling other school responsibilities (Jackson, Schwab, & Schuler, 1986). These three dimensions do not exist separately, but are correlated with one another.

Cordes and Dougherty (1993) have indicated that burnout is a process, in which the sequencing of the three components of burnout is in play. Maslach (1996) suggested that emotional exhaustion was first developed by chronically excessive work demands rendering the individual feeling unable to care for other people or to perform their job. These excessive work demands would drain the individual's emotional resources, making them feel lacking in emotional energy. While emotional exhaustion would lead one to distant oneself from one's own work, depersonalisation might be considered to be a type of avoidance coping mechanism employed to cope with emotional exhaustion. Depersonalisation seemed to provide an emotional buffer between the individual and the stress induced by the emotional demands of the job. Depersonalisation is thus a response to emotional exhaustion. It is characterised by a detached and an emotional callousness and a cynical attitude toward their co-workers, clients or people surrounding them in their workplace. An individual in a state of depersonalisation might use derogatory words when communicating with others. They might even refuse to communicate with other co-workers. Furthermore, when

individuals recognised that their current achievement was discrepantly below their original expectation of their work performance, their feeling of personal accomplishment would be diminished which in turn further reduced their expectancy of personal accomplishment (Maslach & Leiter, 1997).

When individuals appear to have reduced personal accomplishment, they have a tendency to evaluate themselves negatively, they do not appreciate themselves, even when they have made a contribution at work, and they feel a loss of job competence and achievement in their work and in their interactions with others at work (Cordes & Dougherty, 1993). Ultimately, this state may drive them to more frustration and tension in their workplace to the point where they feel emotionally and psychologically unable to continue at work.

The Maslach Burnout Inventory-Educator Survey (MBI-ES) (Maslach, Jackson, & Schwab, 1986; Maslach & Leiter, 1999) thus provides a useful tool with a clear approach for studying burnout, including burnout as a component of the present study.

Studies of Teacher Burnout in Hong Kong

Mo's (1991) study of teacher burnout relations with stress, personality, and social support was probably the first pioneering study of teacher burnout in Hong Kong. He studied burnout among secondary school teachers, and related their levels of burnout with background variables. He found that the Maslach's burnout phenomenon was evident among secondary school teachers in Hong Kong: graduate teachers with less teaching experience – especially those with five years or less – showing higher levels of burnout on the emotional exhaustion dimension.

Subsequent studies by other researchers have replicated the finding of a higher level of burnout being reported by less experienced teachers (e.g., Lau, 2002; Lau, Yuen & Chan, 2005). They have also enriched our knowledge of burnout by adding other variables to the list of burnout correlates or predictors, variables such as coping strategies (Chan & Hui, 1995), hardiness (Chan, 2003), self-efficacy (Chan, 2005), emotional intelligence (Chan, 2006) and pedagogical self-concept and purpose in life (Lau *et al.*, 2005), all correlating negatively with burnout.

Some research studies in Hong Kong on teacher burnout have validated the use of MBI-ES in studying teacher burnout. The Chan and Hui (1995) study examined Hong Kong teachers' level of burnout in which the three dimensions of MBI-ES were employed. Their findings were comparable to those of similar yet larger-scale studies

of American and Canadian teachers (e.g., Byrne, 1991 & 1994). They revealed that Hong Kong Chinese teachers typically had comparable high scores on emotional exhaustion, but generally lower scores on depersonalisation, and to a lesser extent on personal accomplishment (Chan & Hui, 1995). More recent research studies of teacher burnout (e.g., Lau *et al.*, 2005), have acknowledged that, when teachers suffer from prolonged stress, they are more likely to burn out. These studies thus provide justification for the use of MBI-ES in the present study.

Indeed, in Hong Kong, many studies have already revealed that teacher burnout has led to severely negative consequences in reducing teaching efficacy. Hui and Chan, (1996), Tang and Yeung (1999), Lau (2002), and Lau *et al.* (2005) have all identified that such teachers feel less concerned about students' learning and behaviour, are less sympathetic towards students' progress and performance, and are less interested and enthusiastic about teaching. Burnout in teachers has also been reported to be associated with a social disease of 'Monday Symptoms' – an unwillingness to attend school – in which their behaviour is a way of avoiding having to think about school-related matters: when encountering discipline problems in class, they are afraid of facing their students and have just wanted to escape from the classroom (Lau *et al.*, 2005). Some have even felt that they had little control over events, resulting in feelings of incompetence and low levels of self-esteem (Chen, 2007).

The Hong Kong Government has launched comprehensive education reforms (EC, 2000) over the last two decades. These reforms – aimed at creating a knowledge society – have involved a comprehensive and fundamental change in primary and secondary school curricula and a major shift of the modes of teaching and learning (CDC, 2001). However, they have also posed serious challenges to teachers in terms of the demands on their time, knowledge, and skills. They have also challenged teachers' basic competence in teaching and have had significant impacts on their lives. Cheng (2009a) has argued that in the previous decade, Hong Kong have been 'infected' with the so-called 'Reform Syndrome', characterised by never-ending reforms with no priorities and little effectiveness, leading to teachers' emotional exhaustion. Cheng's (2009a) observation of the increasing number of cases reporting teacher burnout relating to education reform was similar with the Teacher Work Committee (CTW, 2006) report.

Generally speaking, from both international and Hong Kong literature on the study of teacher burnout, typical symptoms of teachers on the threshold between stress and burnout have been identified behaviourally in teachers' diminishing teaching efficacy, a general feeling of incompetence, very low levels of self-esteem, a high tendency to escape from school-related matters, emotional exhaustion, indifference to students, and absenteeism. All these behaviours have been believed to be costly to teachers as individuals, to schools as organisations, and to education as society's future, hence, the importance of understanding the nature and impact of teacher burnout has been acknowledged in recent years and increasingly discussed in numerous research publications. Moreover, there is also an emerging priority to explore how these understandings can be channelled into fostering the reduction of stress and burnout levels of school teachers to contribute to a healthy and sustainable education system. Nevertheless, in Hong Kong, there are still limited numbers of researchers and studies on teacher burnout, and none pertinent to the specific teaching context of EBC teachers in SDSs, with their particular and distinctively different nature from the mainstream teachers and schools. Those differences are taken here as warranting a separate in-depth study.

Resilience

Nature of Resilience

Initially the term 'resilience' has been used only to explain the capacity of individuals to adapt and thrive despite experiencing adversity (Masten, Best & Garmezy, 1990). At that primary stage, with limited intellectual acknowledgement, studies of resilience mainly focused on identifying the 'particular risk' and 'protective factors' that constrained or enabled resilience, and on investigating particular traits that characterised resilient individuals. In understanding resilience, Rutter (1990) has emphasised the need to focus on the process of developing resilience, rather than identifying the risk or protective factors that might change across individuals and situations. Konrad and Bronson (1997, p.194) also indicated that developing resilient people "is a long-term developmental process that involves systemic changes – the fundamental altering of our human systems, including the family, the school, the neighbourhood, community-based organisations, and the workplace".

It has been subsequently shown that resilience is not solely a personal attribute, but is a complex construct resulting from a dynamic relationship between risk and

protective factors (Bernard, 2004; Masten, 2007). Resilience research has moved from identifying protective factors that result in adaptive outcomes to understanding the process of negotiating and overcoming challenges and developing actual strategies (Gu & Day, 2007; Luthar, Cicchetti, & Becker, 2000). And this shift of focus has significantly changed the approach in later studies on resilience (including this study) towards the inter-relationships of resilience with other behavioural elements and its possible impact in different contexts.

In the early 2000s, intellectual studies have begun to conceptualise resilience from a social ecological perspective, whereby resilience is defined as “a set of behaviour over time that reflect the interactions between individuals and their environments, in particular the opportunities for personal growth that are available and accessible” (Ungar, 2012, p. 14). Work on resilience then started to embrace a perception that it could contribute to growth, knowledge, self-understanding, and increased strength of resilient qualities.

Resilience has also come now to be perceived as a multi-faceted, unstable construct, the nature of which is determined by the interaction between the internal assets of the individual and the external environments in which the individual lives and grows (Oswald, Johnson & Howard, 2003). In recent studies, resilience has referred variously to a process of developing, a capacity to develop, and an outcome of successful adaptation in the face of challenging circumstances (Bobek, 2002). Findings in other studies on resilience have further revealed some typical characteristics in the nature of resilience. They have revealed that the capacity to be resilient in diverse negative situations – whether these be connected to personal or professional factors – could be enhanced or inhibited by the nature of the workplace settings, the people they worked with, and the strength of their beliefs or aspirations (Bernard, 2004; Day, Stobart, Sammons & Kington, 2006a; Oswald *et al.*, 2003).

Luthar *et al.* (2000) commented that resilience is not an innate quality, but a construct that is relative, developmental, and dynamic, involving the positive adaptation and development of individuals in the presence of challenging circumstances. It also implies a phenomenon that is influenced by individual circumstance, situation, and environment and which involves far more complex components than the specific personal accounts of internal traits or assets alone have suggested.

Siebert (2005 & 2006) suggested that resilience is essential to get more work done effectively in situations where an individual feels pressured: a general situation in today's workplaces where everyone must learn how to be 'change proficient', cope with unexpected setbacks, and overcome emotionally draining adversities. Resilience has been found to be associated with increased job performance and satisfaction in a number of professions (Beltman, Mansfield & Price, 2011), particularly in protecting individuals against stress and burnout (Mansfield, Beltman, Price & McConney, 2012) and improving a person's capacity to persist in the long-term (Chen & Miller, 2012).

Research into the Dimensions of Resilience

Some studies of resilience have revealed that the journey to resilience can be learned, resilience thus is no longer being considered only as an innate trait, but a process that happens through an interaction between the individual and the environment (Maddi & Khoshaba, 2005). Resilience has thus been identified as a dynamic process that is the result of interaction over time between a person and the environment (Bobek, 2002; Hong, 2012; Tait, 2008).

Correspondingly, there has been research identifying many personal and contextual resources that are important for resilience (e.g., Day & Gu, 2014; Johnson *et al.*, 2014). These studies have revealed that particular personal attributes – such as motivation, commitment, and social and emotional competence – and an individual's capability to use coping strategies in enhancing their resilience – such as problem solving, goal setting, positive thinking, and maintaining work-life balance – could be used by employing organisations to enhance or select for resilience and by individuals to strengthen their resilience. Thus, existing literature on resilience has already recognised these two aspects – individual and organisational – of resilience, while acknowledging that they are inseparable and interact to influence an individual's resilience, particularly in its development. These two aspects of resilience are examined here as follows.

Individual resilience: Individual resilience has been described in psychology literature as the psychological and biological flexibility of individuals to successfully master change (Flach, 1997). It focuses on (1) the ability of individuals to learn from experience to overcome setbacks as evidenced in their frustrations, criticisms, and other behavioural adversities; (2) their ability to modify their behaviour in response to the demands of a critical situation; and (3) their capacity to recover from a disturbed state.

Flach (1997) also remarked that, ideally, individuals would be able to make use of such stressful experiences by converting them into new knowledge and additional skills to help them deal with life's future challenges.

Studies by Wolin and Wolin (1994), Siebert (2006), and Vanderpol (2002) have revealed that resilient individuals commonly evidence the following individual dimension of resilience:

Initiative is the individual's ability to take action (Wolin & Wolin, 1993); resilient individuals are usually able to assess their own needs and to know how to deal with them (Siebert, 2006).

Independence is the individual's ability to act with autonomy, to be able to separate oneself from external situations (Wolin & Wolin, 1994); individuals make their own decisions and take action without asking for approval from other people (Siebert, 2006).

Insight is the individual's perception of what is wrong and why it is wrong (Wolin & Wolin, 1994). It is a strong capacity for self-reflection and self-awareness in problem situations; it is a protective factor. Self-awareness of one's own and others' mental state is critical for autonomy and one's sense of identity (Siebert, 2006).

Empathy is the ability to understand accurately what another human thinks and/or feels (Wolin & Wolin, 1994). A capacity for empathy enables an individual to tolerate difficult and abusive situations by focusing on making connections with others in the same situation. It allows resilient individuals to take responsibility for what has to be done and take charge in difficult situations without feeling victimised (Siebert, 2006).

Relationship is an individual's set of complex abilities that allow them to form relationships with others (Vanderpol, 2002). Resilient people engage others rather than alienate them. They believe that problems are opportunities to strengthen relationships (Siebert, 2006).

Humour is the individual's ability to find the comic in the tragic (Wolin & Wolin, 1994). Laughing reduces tension and competence improves. It gives a person a different, less frightening perspective of the problem (Siebert, 2006).

Creativity is an individual's ability to use imagination (Wolin & Wolin, 1994).

Creative people turn problems into advantages (Siebert, 2005). Creativity allows people to improvise solutions to problems without proper or obvious tools or materials (Siebert, 2005).

Morality is the individual's ability to act with integrity (Wolin & Wolin, 1994). Clear ego boundaries protect people from becoming embroiled in other people's pathology while maintaining an empathic attitude (Vanderpol, 2002).

These dimensions are seen here as pertinent to informing the approach taken in the present study.

Masten (2001) initially developed a list of 'protective factors' associated with an individual's resilience. The list was later enriched to include more comprehensively characteristics of intelligence, problem solving, perceived efficacy, persistence, achievement, motivation, self-regulation, effective stress management, and positive relationships with others (cited in Masten, Herbers, Cutuli & Lafavor, 2008). Such protective factors are believed to have enhanced individuals' resilience and are rooted in human evolution, both biologically and culturally. These factors are also believed to have promoted teachers' feelings of competence and resilience in the school context (Masten *et al.*, 2008; Muller, Gorrow & Fiala, 2011).

The development of resilience has been seen as a 'personal journey' (American Psychological Association, 2007), whereby individuals do not react in the same way as they did previously to traumatic and stressful life events; an approach to building resilience might work for one person but not another. Some of the many ways to build resilience could be considered as an individual's own ability to use a specific developmental strategy. To the American Psychological Association (2014), resilience is then understood as the process of adapting well in the face of adversity, trauma, tragedy, threats or even significant sources of stress, such as family and relationships problems, serious health problems, or workplace and financial stressors.

Empirical work on resilience, specifically in teachers, is still in its infancy. However, emerging evidence to date has affirmed that resilience in teachers is not necessarily associated only with personal attributes (Luthar & Brown, 2007). Rather, it is "a social construction" (Ungar, 2004, p. 342), which can be influenced by multidimensional factors that are unique to each context (Ungar, 2004). Resilience is thus context-specific. For teachers, resilient qualities are associated with the work of being a teacher which is shaped by not only "the more proximal individual school or

classroom context”, but also “the broader professional work context” (Beltman, Mansfield, & Price, 2011, p. 190). For example, the educational literature has been consistent in suggesting that in-school management support for teachers’ learning and development, leadership trust and positive feedback from parents and pupils are key positive influences on their motivation and resilience (e.g., Brunetti, 2006; Chen, 2007; Day *et al.*, 2007; Huberman, 1993; Leithwood, Day, Sammons, Harris & Hopkins, 2006; Meister & Ahrens, 2011). Recognition by these ‘significant others’ (Luthar & Brown, 2007) of the effectiveness of those influences in their major roles has been found to have much to contribute to the development of teachers’ individual and collective resilience (Beltman *et al.*, 2011; Day & Gu, 2010, 2013).

Organisational Resilience: Unlike individual resilience, organisational resilience has not been well developed by researchers and writers to date. The focus, rather has been more on organisational cultures and climates (Bandura, 2000), on human resource development (Coutu, 2002), on business management (Hamel & Valikangas, 2003), and on crisis management (Brunsdon & Dalziell, 2005). Grove (1997, p.47), though, defined organisational resilience as “the ability of the organisation system, based on the aggregation and composition of the system pieces and structural inter-linkages, to withstand the pressures of environmental loading and achieve high levels of performance with minimal dysfunction”. He added that, in an environment of continuing change, one of the key questions has been how organisations could manage change, create capacity for new work, and support the resilience of the employees in doing their work.

Some previous studies have also found that resilience is not an innate quality (Luthar *et al.*, 2000), but, rather, is relative, developmental, and dynamic, and can be influenced contextually. As Day and Gu (2014) have suggested, “resilience is more than an individual trait. It is a capacity which arises through interactions between people within organisational contexts” (p.21). With respect to the school as an organisation, they suggested that resilience qualities could be learned or acquired and could be achieved with organisational support. They also remarked that by providing relevant protective factors, such as caring and attentive educational settings in which school leaders promoted high expectations, positive learning environments, a strong and supportive social community, and supportive peer relationships, resilience could be built among teachers in schools (Day & Gu, 2014).

The suggestions and findings of Day and Gu on resilience with the associated organisational ‘protective factors’, specifically in relation to the areas of teacher commitment and effectiveness (Day, 2008 & 2011), resilient school leaderships (Day, 2012 & 2014), resilient leaders and resilient schools (Day, 2013), relational teacher resilience (Gu, 2010), and their other related studies into resilient teachers and resilient schools (Day & Gu, 2010 & 2014), have provided important insights for this study: contributing to the establishment of the conceptual framework and research of related resilience topics in this study, by enriching the resilience dimension from an organisational perspective.

Studies on Stress, Burnout and Resilience Related to EBC Teachers

Although there have been many international studies of teacher stress, burnout and resilience, those relating specifically to EBC teachers in Hong Kong are still few in number. The concept of teacher resilience has been emerging to public awareness and acknowledgement only in the last decade. And most of the studies of teacher stress and burnout in Hong Kong have been reportative in nature or from a social need perspective to suggest remedial measures to rectify the severe consequences, such as individual teachers committing suicide and teachers taking industrial action. And there has been a lack of research into EBC teachers’ stress, burnout and resilience within the specific SDS context in Hong Kong: grounding hence the purpose of this study.

Most previous research has identified a typical array of stressors being found in EBC teachers. Contrary to the findings of those researches, however, the SDS Annual Report (2009) revealed some positive attitudes unexpectedly being found across EBC teachers in the SDSs, specifically from their response regarding working conditions and job satisfactions. That report revealed that many EBC teachers (84 %) reported having good relationships with both their school principal and colleagues and that they were able to contribute to school decisions. Most of the EBC teachers (80 %) reported feeling confident to work with students with various challenges. These observations coincidentally aligned with McManus and Kauffman's (1991) finding that resilient teachers were usually associated with a satisfying working environment, which also gave them high levels of job satisfaction. Within the past three academic years (2007-2010), the teacher attrition rate in the SDSs has been below 10 per cent. This difference between the traditional research findings and an unexpected EBC teacher’s response raised my interest in undertaking the present study with a specific focus on

EBC teachers in Hong Kong SDSs. It raised in my mind the following sorts of questions: ‘why do EBC teachers in the SDSs persist?’, ‘what possible factors contribute to them persisting?’, and ‘are there any individual and/or organisational factors in play contributing to that persistence?’

Conclusion: Implications for the Study

From that review, a number of conclusions pertinent to the nature and conduct of the study were identified. These are presented here as implications for the study, and picked up in the following chapter to inform the conceptual framework that was used to guide the study.

1. There are indications that the nature and relative impact of individual stressors, the dimensions of resilience, and the relative impact of those dimensions on burnout may differ significantly across different teaching contexts.
2. Teacher stress may be attributed to a wide range of stressors: impacting factors in teachers’ experience.
3. High levels of teacher stress may lead to teacher burnout.
4. Teacher stress – and hence also teacher burnout – may be alleviated by strategies to moderate the impact of stressors, through building teacher resilience to stress.
5. There remains a need to explore further the dimensions of teacher resilience that serve to moderate their stress and burnout, to inform educational interventions to alleviate the impacts of teacher stress.
6. Such research might valuably be undertaken with EBC teachers in Hong Kong SDSs, since they are subject to a particularly acute range of student and organisational stressors, yet there are indications that they may show unexpectedly high resilience, and they are an under-researched sector of schooling in this field.
7. Such a study might valuably explore the experiences and perceptions of such EBC teachers to identify what they see as being dimensions of their individual resilience.
8. To establish the integrity and comparability of the study, it would also, though, need to be grounded in a contextualised understanding of the actual relationships between stress, burnout and resilience.

9. The conceptualisation of stress, burnout and resilience, and the measures used to examine them, similarly, should follow established understandings and instruments.

Chapter Four: Methodology

Introduction

This chapter describes and justifies the research methodology used in the study to address its primary purpose of developing an understanding of the nature and conditions of stress and burnout experienced by EBC teachers in Hong Kong and of how they became resilient while working in the challenging environment of the SDSs.

The material is presented in the following sections: (1) the conceptual framework used to guide the research, (2) the research approach and methods, (3) the structured survey questionnaire, (4) the conversational interviews, and (5) ethical considerations.

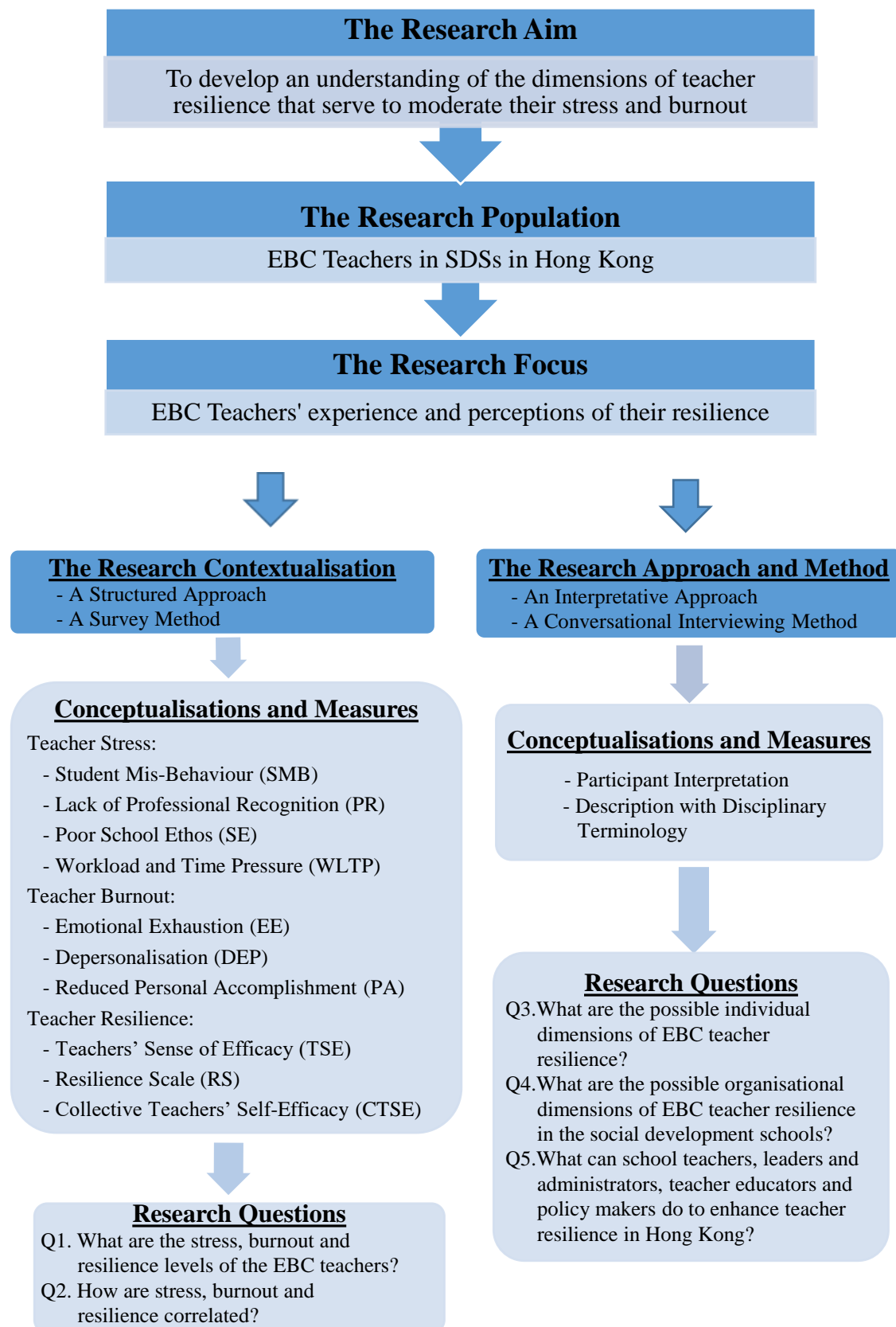
The Conceptual Framework

The conceptual framework was developed from the implications for the study drawn from the foregoing literature review (Chapter Three).

From those implications, the following key elements of the conceptual framework were identified:

- (1) A research aim of developing an understanding of the dimensions of teacher resilience that serve to moderate their stress and burnout.
- (2) A research population of EBC teachers in SDSs in Hong Kong.
- (3) A research focus on EBC teachers' experience and perceptions of their resilience: its nature, factors contributing to it, and strategies used to enhance it.
- (4) A research approach and method allowing for the in-depth exploration and articulation of that experience and those perceptions.
- (5) A contextualising articulation of the levels of teacher stress, burnout and resilience in the research population and of the relationships between those three concepts in the population, using an appropriately structured approach and method.
- (6) A grounding of the study in appropriate conceptions and measures that have been traditionally used in research to date.
- (7) The drawing out of research questions that link those conceptions and measures to the research aim.

Those elements, then, made up the elements of the conceptual framework, as follows (see also Figure 4.1).



Note: Arrows identify the flow of logic in the design

Figure 4.1 The Conceptual Framework used to Guide the Study

The Research Aim was to develop an understanding of the dimensions of teacher resilience that served to moderate their stress and burnout. Those dimensions were understood as the factors contributing to resilience and the strategies that teachers used to enhance it.

The Research Population was that of the EBC teachers in SDSs in Hong Kong. Either that population or samples drawn from it, then, were to be subjects in the study.

The Research Focus was on the EBC teachers' experience and perceptions of their resilience: its nature, factors contributing to it, and strategies used to enhance it. The study, then, sought to articulate that experience and those perceptions.

The Research Approach and Method were to allow for the in-depth exploration and articulation of that experience and those perceptions, implying an interpretative research approach and conversational interviewing as a method.

The Research Contextualisation involved articulating the levels of teacher stress, burnout and resilience in the research population and of the relationships between those three concepts in the population, using an appropriately structured approach and method. A structured approach was therein indicated, with a survey method.

The Research Conceptualisations and Measures involved using conceptualisations of the key concepts drawn from the research literature and using instruments for measuring those concepts that would allow the findings to be related back to those of prior studies that used the same instruments. In other words, to ensure comparability of the findings from this study with those of others, it was important to use here, as far as possible, the same definitions of key concepts and the same instruments as those used in previous research.

For the conversational interviews, the data were taken as being the participating teachers' own articulations of their experiences and interpretations. However, in presenting my articulations of those experiences and interpretations, I was to seek to articulate the meanings both to preserve their authorial intent and to render them understandable by knowledgeable readers in the field, using descriptive terminology drawn from the research literature in the discipline.

The three concepts of stress, burnout and resilience were measured in the research contextualisation survey as follows.

- (1) Teacher stress was measured by using four established scales: Student Mis-Behaviour (SMB), Lack of Professional Recognition (PR), Poor School Ethos (SE), and Workload and Time Pressure (WLTP).
- (2) Teacher burnout was measured by using three established scales: Emotional Exhaustion (EE), Depersonalisation (DEP), and Reduced Personal Accomplishment (PA).
- (3) Teacher resilience was measured using three established scales: Teachers' Sense of Efficacy (TSE), Resilience Scale (RS), and Collective Teachers' Self-Efficacy (CTSE).

Those 10 constructs were categorised into five measurement scales comprising: the Source of Teacher Stress (STS) scale, to measure teacher stress level; the Maslach Burnout Inventory-Educator Survey (MBI-ES), to measure teacher burnout level; the Teachers' Sense of Efficacy (TSE) scale; the Resilience Scale (RS); and the Collective Teachers' Self-Efficacy (CTSE) scales, to measure teacher resilience (Table 4.1).

Table 4.1:

Constructs to Measure Stress, Burnout and Resilience

Measures	Constructs
Teacher Stress (STS)	Student Mis-Behaviour (SMB)
	Lack of Professional Recognition (PR)
	Poor School Ethos (SE)
	Workload and Time Pressure (WLTP)
Teacher Burnout (MBI-ES)	Emotional Exhaustion (EE)
	Depersonalisation (DEP)
	Reduced Personal Accomplishment (PA)
Teacher Resilience (TSE, RS, CTSE)	Teachers' Sense of Efficacy (TSE)
	Resilience Scale (RS)
	Collective Teachers' Self-Efficacy (CTSE)

It was acknowledged, however, that there would be interactions between and among these scales and sub-scales, as is shown here in Figure 4.2, where the heavy horizontal arrow represents the known relationship from previous research, linking stress as contributing to burnout. The other slimmer arrows represent the possibility of relationships between and among the variables that may be important in the findings of this study.

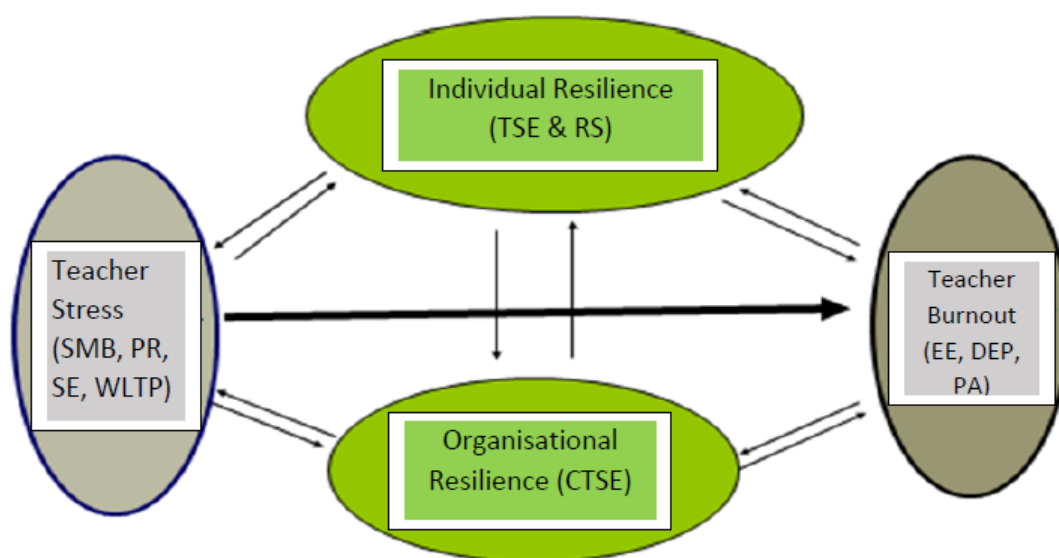


Figure 4.2 Interactions among the Scales used in the Contextualisation Survey

The Research Questions

From the above conceptual framework, the following five research questions were generated to guide the data collection and analysis:

- Q1. What are the stress, burnout and resilience levels of the EBC teachers?
- Q2. How are stress, burnout and resilience correlated?
- Q3. What are the possible individual dimensions of EBC teacher resilience?
- Q4. What are the possible organisational dimensions of EBC teacher resilience in the social development schools?
- Q5. What can school teachers, leaders and administrators, teacher educators and policy makers do to enhance teacher resilience in Hong Kong?

The first two questions were to be addressed through the contextualisation survey. Questions three and four were the main focus of the study, to be addressed through the interpretative conversational interviews. And the final question was seen as a matter for interpretation from the findings of those interviews.

The Research Approach and Methods

The primary research approach adopted in the study – that taken to address research questions three and four, and, derivatively, also question five – was an interpretative approach. An interpretative approach to research understands all knowledge as, to some extent at least, an interpretation of human experience (Reid, Flowers & Larkin, 2005). Knowledge is, to that extent, understood as being constructed (Denzin & Lincoln, 2000) as an interpretation of experience (Reid *et al.*, 2005). Such interpretations give meaning to the experience by relating it to existing knowledge (Smith & Osborn, 2008).

Researcher access to such knowledge is therefore, most directly obtained by tapping into the meanings that individuals give to their experience; their interpretations of their experience (Reid *et al.*, 2005; Rose, 2003). Such research data, therefore, are most commonly and directly individuals' written or spoken (interpreted) individual accounts and perceptions of their experience: how they understood it, what it felt like, what impact it had on them, what it meant to them, how it related to their existing understanding, how it changed that understanding, how it changed how they felt, how it changed their commitments, and what it led them to do (Smith, Flowers & Larkin, 2009; Moustakas, 1994).

In the research, such as that undertaken in those studies, where the focus is on a particular realm of experience – teacher resilience in this case – such accounts of experience are commonly obtained through in-depth conversational interviews with the individual subjects (Denzin & Lincoln, 2003; Owens, 1982). Such interviews seek to engage each subject participant in a conversation about their experience and perceptions of the topic, focusing on aspects of particular research interest – the nature of their resilience, the factors contributing to it, and the ways used to enhance it in this case (Creswell, 2007). The interview, though, is conducted in such a way that it takes the form of a conversation, in which the interviewer seeks to engage the participants in relating what they see as their pertinent experience and perceptions in their own words and in the context of their own engagement with their lived realities (Shaw, 2004).

Hence, the general method adopted in such cases is that of what I am here labelling ‘conversational interviewing’, following (Smith, 2004).

On the other hand, the research approach adopted for the research contextualisation part of the study – encompassed by the first and second research questions – was quite different. It sought to enumerate the levels of stress, burnout and resilience experienced by the participating teachers and the numerical relationships between those three categories of experience. It called, then, for a research approach that was structured by existing interpretations of those categories of experience and of how they have traditionally been measured, to ensure their meaningful comparability with research findings to date (Larkin, Watts & Clifton, 2006). Such an approach may best be labelled ‘structured’, since it draws on existing structures of knowledge and instrumentation (Denzin & Lincoln, 2003). It is more commonly, but misleadingly, referred to as ‘quantitative’ (Creswell, 2008), although that is a misleading, because a structured approach may or may not be any more or less quantitative than an interpretative one (Teddlie & Tashakkow, 2009). A structured approach is also commonly represented as positivistic (Crowther and Lancaster, 2008), which it may be, but is not necessarily (Smith *et al.*, 2009), so such terminology is avoided here.

A structured research approach calls for data collection instruments that present an identically structured set of items – questions, situations, or whatever – to all subjects, on the assumption that variations in the responses among respondents will be an expression of their individual differences and circumstances (Easterby-Smith, Thorpe & Jackson, 2008). The problematic assumption is thus made in this approach that each subject interprets each item in the same way as do all others (Cozby, 2007), although the general failure of that assumption is noted here purely to alert the reader to a generic weakness of the approach.

When data are required from a large sample of subjects for reasons of statistical reliability – as was the case in this study – a survey method of some sort is commonly used (Creswell, 2007). A written questionnaire is often used with literate and committed subjects, particularly because of its relatively low cost and the opportunity that it presents for respondent deliberation (Tashakkow & Teddlie, 2003). Such conditions applied in this study, so a written questionnaire comprising the various elements noted above as measuring stress, burnout and resilience, was the research method adopted for this part of the study.

The detailed use of those two different research approaches and methods – interpretative conversational interviewing for the primary research and structured survey questionnaires for the research contextualisation – is explained in the following two sections.

The Structured Survey Questionnaire

Purpose of the Survey Questionnaire

As noted above, the survey questionnaire method was selected as being most appropriate for addressing the first two research questions: those pertaining to the levels of stress, burnout and resilience of the EBC teachers and to the relationships among them. That information was seen as being crucial to contextualising the findings of the main part of this study – directed to developing an understanding of the nature and conditions of stress and burnout experienced by the teachers – through the conversational interviews. It was seen as locating those findings in the context of stress, burnout and resilience statistics that would be readily comparable with the findings of other, related studies and of facilitating the consideration of the findings from this study in other contexts of educational practice.

Population and Sample

The target population for this contextualisation study was the 146 teachers who were teaching students with emotional behavioural challenges (EBC teachers) in the seven social development schools (SDSs) in Hong Kong. The small size of population permitted the whole population of EBC teachers of the seven SDSs to complete the questionnaire. The rationale for the population selection was that it ensured participants would be those who had major roles specifically in teaching EBC students.

Questionnaire Development

Addressing to the first two research questions in this study, five validated scales totalling 94-item statements were adopted to examine the conditions and correlations of the stress, burnout and resilience of the EBC teachers. This ‘EBC Teacher Stress, burnout and resilience Questionnaire’ (Appendix A) comprised four sections: (1) respondents’ demographic items, (2) teacher stress measures, (3) teacher burnout measures, and (4) teacher resilience measures. A four-point Likert scale was used for all 94-item statements.

Respondent's Demographic Items: This section sought information on respondents' age, gender, education, teaching level, and self-rated stress and burnout levels, followed by an invitation to those who perceived themselves to be resilient teachers to volunteer for an interview.

Teacher Stress Measures: Teacher stress levels were measured by the Source of Teacher Stress (STS) scale. The STS scale had been standardised over a sample of 1700 teachers from diverse settings, and it had Cronbach's alpha reliability values of 0.80 to 0.92 in Chan & Hui's study (1995). In that study, four major stressors had been identified and the scale had been used in studying teacher stress in Hong Kong (Chan, 1998 & 2002; Chan, 2006).

This STS scale consisted of 28 item-statements within these four identified stressors as follows:

- Student Mis-behaviour (SMB), of 8 items, referring to the stress induced by students' discipline and learning problems.
- Lack of Professional Recognition (PR), of 7 items, describing the stress induced by poor professional conditions and recognitions.
- Poor School Ethos (SE), of 5 items, specifying the stress induced by poor school administration and policies, and poor school climates.
- Workload and Time Pressure (WLTP), of 8 items, identifying the stress induced by the heavy workload and the lack of time to fulfil one's duties.

For each item of the four stressors, participants indicated their level of agreement with the item-statement on a four-point Likert scale (one = none; two = little; three = strong; and four = very strongly). A higher total scale score thus indicated a higher incidence of occupational stress.

Teacher Burnout Measures: In this study, teacher burnout was measured by the Maslach Burnout Inventory-Educator Survey (MBI-ES). The MBI-ES consists of 22 item-statements, allocated within the three respective subscales of emotional exhaustion, personal accomplishment, and depersonalisation. In this study, participants were requested to evaluate the frequency with which each item most appropriately applied to them, ranging from 1 (never) to 4 (very frequently).

The three MBI-ES subscales are as follows:

- Emotional Exhaustion (EE), of 9 items, characterising the depletion of a teacher's emotional resources and the feeling of being emotionally overextended.
- Depersonalisation (DEP), of 5 items, capturing the development of a cynical, callous attitude or an excessively detached response to students, parents and colleagues.
- Personal Accomplishment (PA), of 8 items, capturing a feeling of being ineffective in working with students and in fulfilling other school responsibilities.

For both the EE and DEP subscales, higher mean scores correspond to higher degrees of experienced burnout. The subscale of PA, containing eight items, described feelings of competence and successful achievement in one's work with people, in contrast to the first two subscales; lower mean scores on this PA subscale corresponded to higher degrees of experienced burnout.

Reported Cronbach alpha values for the three burnout components of MBI-ES scores have ranged typically from 0.70 to 0.90 for samples of Chinese teachers (Chan & Hui, 1995; Tang, Au, Schwarzer & Schmitz, 2001; Lau, Yuen & Chan, 2005).

In this study, nevertheless, in order to unify the rating scale of the 94 item-statements to facilitate participants' direct response in completing the questionnaire, the 22 item-statements of the three subscales were adapted with a modification of the rating scale from the seven-point Likert scale generally adopted in MBI to a four-point Likert scale (one = never; two = occasionally (once a week), three = frequently (a few times a week), and four = very frequently (most of the week)).

Additionally, the MBI-ES have standardly used a normal distribution to measure levels of teacher burnout. However, the sample size of this study was relatively small, suggesting the inadvisability of using normal distribution. Hence, the rating of 'factor score range' of Lau, Yuen, and Chan's study (2005) was employed for the measurement of the EBC teachers' burnout levels in this study.

Teacher Resilience Measures: In this study, teacher resilience was conceptualised and measured in terms of both individual and organisational aspects. It was measured with the variables adopted from three validated scales: the Teachers' Sense of Efficacy scale, the Resilience Scale, and the Collective Teachers' Self-Efficacy scale, within which a total of 44 item-statements were used:

- Teachers' Sense of Efficacy scale (TSE), of 12 items, measuring teachers' individual resilience in the teaching context.
- Resilience Scale (RS), of 20 items, also measuring teachers' individual resilience.
- Collective Teachers' Self- Efficacy scale (CTSE), of 12 items, measuring resilience in the organisational context.

In the design of above resilience measurement scales, my rationale to decide on using these three elements (RS, TSE, and CTSE) is explained and justified as below:

Resilience Scale (RS): According to Siebert (2006), resilience is the process of successfully adapting to difficult or challenging life experiences, resilient people being those who overcome adversity, bounce back from setbacks, and can thrive under extreme, on-going pressure without acting in dysfunctional or harmful ways. The concept of resilience indeed has also been widely accepted in many empirical studies as a multifaceted construct that comprises personal resources such as self-esteem, optimism, coping strategies, and generally understood as the ability to resist or bounce back from adversity.

In this study, RS was a 20-item question statements adopted from Siebert's 'Resilience Quiz - How Resilient Are You?' (Siebert, 2005) to measure individual resilience. Participants indicated their self-rated resilience level on the item statements by a four-point Likert scale (one = rarely; two = sometimes; three = often; and four = very often).

Teachers' Sense of Efficacy scale (TSE): Self-efficacy had been conceptualised as a component of resilience (Rutter, 1990, Werner, 1982) in which individuals with high levels of perceived self-efficacy generally trusted their own abilities in the face of adversity, tended to conceptualise problems as challenges, experienced less negative emotional arousal in demanding tasks, thought in self-enhancing ways, motivated themselves, and showed perseverance when confronted with difficult situations (Bandura, 1997). Howard and Johnson (2004) also found that resilient teachers had a strong sense that they could control any situation, a tendency not to dwell on past mistakes or failures in an agonising fashion, a capacity to depersonalise unpleasant experiences. Similarly, Gu and Day (2007) also added in terms of school teachers that "*The development of teachers' self- efficacy consistently interacts with the growth of their resilient qualities. It is by nature a dynamic,*

developmental process – the key characteristic of resilience” (p. 1312). Gu and Li (2013) further echoed the construct of perceived self-efficacy in the belief that one could perform novel or difficult tasks and attain desired outcomes, as spelled out in the Social Cognitive Theory (Bandura, 1997).

In this study, the short (12-item) question statements, adopted from Tschannen-Moran & Hoy (2001), were used to represent three distinct factors associated with three areas of teachers' self-efficacy in their teaching: efficacy for classroom management, efficacy to promote student engagement, and efficacy in using instructional strategies. Participants indicated their level of self-perceived efficacy on the item statements by a four-point Likert scale (one = very little; two = some influence; three = quite a bit; and four = a great deal).

Collective Teachers' Self- Efficacy scale (CTSE): Collective efficacy is the perceptions of teachers in a school that the school as a whole can organise and execute the courses of action required to have a positive effect on students (Hoy, Sweetland & Smith, 2002). The collective sense of efficacy in a school also indicates a sense that the school has the capacity to achieve meaningful and successful teaching and learning in spite of obstacles present. It includes an assessment of the collective perception of the school's capacity for student discipline, as well as for instructional practices.

In this study, the Collective Teachers' Self- Efficacy (CTSE) scale, adopted from Schwarzer and Schmitz (1999) to measure self-belief in one's and collective competences for successful action in school, has a 12-item question statement focused on measuring teachers' self-belief in collective competence for successful action in school in instruction, motivation, controlling student behaviour, and addressing students' needs. Participants indicated their level of agreement on the item statements on a four-point Likert scale (one = not at all true; two = almost not true; three = moderately true; and four = completely true).

Additionally, the rationale of adopting the two efficacy scales, Teachers' Sense of Efficacy scale (TSE) and Collective Teachers' Self- Efficacy scale (CTSE), as prime elements to measure teachers' levels of resilience was the consideration that they needed to be strictly relevant to this study, individual teacher resilience to be related to teachers' specific teaching context and organisational resilience to be related to their specific school context. That focus was picked up particularly in the TSE Scale by relating and measuring teacher's self-belief (1) in the context of teaching efficacy for

classroom management, (2) on efficacy to promote student engagement, and (3) on efficacy in using instructional strategies) and in the CTSE Scale on (1) measuring teacher's self-belief in collective competence for successful action in school (2) collective efficacy on instruction, motivation, controlling student behaviour, and (3) addressing students' needs.

In sum, the employment of TSE and CTSE, in addition to RS, also provided an enhanced and comprehensive study of teacher resilience, from both individual and collective perspectives.

Data Justification

The difficulty of measuring attitudes, character, and personality traits lies in the procedure for transferring these qualities into a quantitative measure for data analysis purposes (Likert, 1932). Likert scales provide a solution to address this difficulty. In this study, in response to the difficulty of measuring personality traits like stress, burnout and resilience of the EBC teachers, a Likert-scale questionnaire was used to collect data for analysis. The selection of this measurement tool was guided by the nature of data to be collected, the time available for respondents in answering the lengthy questionnaire, as well as the objectives of the study. The use of Likert scale questionnaire was particularly adaptable to investigate into information that would be best collected on behavioural phenomena relating to perceptions, feelings and attitudes (Creswell, 2008; Mugenda & Mugenda, 2003).

The questionnaire in this study was composed of five scales relating to teachers' stress, burnout and resilience aspects (STS, MBI-ES, TSE, RS and TCSE) with 94 items of Likert-type, which were categorised into ten composite scores or variables during the data analysis process. These categorised items were used to transfer a set of quantitative measures of self-rated stress levels, burnout levels and resilience levels of the EBC teachers, which were then interpreted as statistically by mean scores and justified by corresponding standard deviations.

A pre-test was conducted for refining the questionnaire to avoid possible bias, particularly in relation to the use of proper question statements that might affect the nature of data collected, the length of questionnaire that might impact on respondents' time focused attention, as well as the adherence to the prime objectives of this study. The 94-item EBC Teacher Stress, Burnout and Resilience Questionnaire was time-tested with 10 volunteering in-service teachers (students) from my lecture class at the

Hong Kong Institute of Education. The 10 volunteers were asked to (a) pinpoint questions that were difficult to answer or understand; (b) highlight procedural problems, such as errors, confusing instructions, and inappropriate sequencing of questions; and (c) determine whether questions addressed the concepts intended in the study.

Feedback indicated that the questionnaire could be completed within about 25 minutes and that there were no problems with the length of the questionnaire. The ordering of the measures, the structure, and the clarity of the content were reported as being appropriate. There was not any systematically different quality of response across the trial respondents to indicate any serious bias problem with the ordering, length and structure of the questionnaire.

Data Collection Procedures

After pre-testing the questionnaire, I administered it to the EBC teachers in the seven schools in person. I visited the school principals to explain the intentions and details of the study, and assured them that the questionnaires would be kept completely anonymous to protect the identities of the participants, and to keep the schools involved confidential.

Each questionnaire packet contained a copy of the questionnaire (Appendix A), a covering letter (Appendix B), and information sheet (Appendix C) about the study. The information sheet detailed the purpose of the study, other information, and consent procedures, explaining what they are being asked to do, detailing length of time to complete the questionnaire, ensuring them that participation was voluntary, providing contact information if they had any questions, providing information on counselling services information at their request, guaranteeing anonymity of their responses, and giving general directions for completing the questionnaire (i.e., to complete all items and return in the enclosed postage-paid envelope back to my office at HKIED within two weeks). To encourage their response and to thank them for their help, a small gift (ink-stamp with positive wording) was presented to all participants. The questionnaire packets were distributed and returns collected in the period February through March 2008.

All questionnaires collected were carefully inspected by me upon receipt. Of the 146 questionnaires sent out, 118 were returned by late March 2008. Of these returns, 12

were found to be incomplete and were discarded. As a result, 106 questionnaires, representing 73 per cent of the total population, was used for the data analysis.

Data Analysis

Data cleaning was conducted prior to the analysis. Major missing cases were deleted list-wise and individual missing data were replaced by a mean. Analysis of the data collected was divided into five parts, namely: demographic characteristics of participants, stress levels, burnout levels, resilience levels of the respondents, and finally the correlations between the stress, burnout and resilience factors.

The reliability coefficient for each section of the questionnaire addressing different variables was computed by the use of Cronbach's coefficient Alpha test to ensure the internal consistency of the data. Descriptive statistics were drawn to describe the demographic characteristics of participants. Mean scores for each respondent on the ten subscales of Teacher Stress (SMB, PR, SE, WLTP), Burnout (EE, DEP, PA), and Resilience (TSE, RS, CTSE) was computed to observe the stress, burnout and resilience levels of individual respondent. Calculation of the total scores, mean scores and standard deviations for the whole respondent population (n=106) on each subscale of Teacher Stress (SMB, PR, SE, WLTP), Burnout (EE, DEP, PA), and Resilience (TSE, RS, CTSE) was employed to observe the stress, burnout and resilience levels of the 106 participants. And the calculation of the Pearson product moment correlation coefficients on the ten subscales testified the correlations between the stress, burnout and resilience factors. The data obtained were analysed by using the Statistical Package for the Social Science (SPSS) version 20.0®.

At the questionnaire development stage, with the aim to better understand the stress, burnout, and resilience conditions of the EBC teachers, it was decided to use four-point Likert scales to collect data. The rationale of adopting these scales was the desire to avoid central tendency bias of respondents from choosing a 'safe' choice at the centre of the scale, and to facilitate respondents in rating directly with instinct with a limited four-point scale whilst also limiting the likelihood of their experiencing physical and behavioural fatigue, with its resultant negative impact on reliability.

Whether individual Likert items – which produce ordinal-level data – may be used in analyses as interval-level data has been a subject of considerable debate in the research methodology literature (Murray, 2013). Good designs of Likert scales, like those I adopted in this study, may be taken, for analytical purposes, as presenting a

symmetry of categories about a midpoint with clearly defined linguistic qualifiers. In this study, the Likert scales were symmetrically and equidistantly designed so that they could be seen as behaving in a manner approximating interval-level data (following Boone & Boone, 2012; Norman, 2010). This allowed me – for the practical purposes of comparing central tendencies and quantifying co-variation – to treat the Likert scales as interval scales to find the mean and standard deviation in observing the conditions of stress, burnout and resilience of the respondents, and to run the Pearson Product Moment Correlation Coefficient test to check the relationships among the stress, burnout, and resilience factors.

Comprising 94 Likert-type statements, the research questionnaire represented sets of similar questions combined into ten composite scores. For each Likert-scale item (on a numerical scale), the intervals between the response categories were thus seen as “quasi-intervals” (Carifio & Perla, 2008), and the combinations of the response categories as numerically meaningful because the points on each scale were measured on the same variable (Ary, Jacobs & Sorensen, 2010). Thus, using mean scores to measure and to interpret the levels of stress, burnout and resilience of the respondents was seen as making practical sense in this study (Norman, 2010).

The Conversational Interviews

Purpose of the Interview

In this study, the purpose of interviewing the resilient EBC teachers was to enter into the teachers’ understanding of their resilience, and to identify the possible factors and strategies contributing to it. Conversational interviews were thus most appropriate in the study. They were conducted with a probing technique to gather information from participants about their beliefs and experiences with flexibility and responsiveness (Miles & Huberman, 1984 & 1994). Each interview had available a set of open-response questions designed to open-up or to re-direct the conversation in explorations of the participant’s pertinent experiences. The question served as a basis to explore each participant’s understanding of their situation in the light of their past experiences. Thus an interview protocol (Appendix E) was developed from the review of research literature on teacher resilience.

Interviewee Selection

The focus of the interviews was on identifying the resilience factors and resilience strategies of the resilient EBC teachers from their resilience experiences. Interview participants who volunteered to join the interview section were, accordingly, selected from those questionnaire respondents who tended to exhibit high levels of resilience.

To apply the criteria for ‘resilience’ in selecting the interview participants, conditions for the selection were set. Only EBC teachers who had completed the structured survey questionnaire and who exhibited relatively high levels of resilience on the resilience scales in the questionnaire responses were considered eligible for interviewing, since the value of the interview data was taken as being directly related to the level of resilience.

Table 4.2

Resilient Levels of the Selected Interview Respondents

<i>Pseudonym (School Code)</i>	<i>Individual Mean Score of the TSE scale</i>	<i>Individual Mean Score of the Resilience Scale</i>	<i>Individual Mean Score of the CTSE scale</i>
Ah Lee (B)	2.67	3.0	2.92
Alice (C)	2.67	3.45	3.34
Wing (B)	2.41	3.2	3.0
Duck (D)	2.58	2.85	2.67
Clayton (C)	2.58	2.70	2.83
Ah Man (A)	2.92	3.05	2.42
Peter (E)	3.50	3.55	2.50
Kelvin (F)	2.75	3.0	2.75
Alvin (A)	2.67	2.85	3.0
Monica (G)	2.75	3.2	2.83
Cathy (G)	2.75	3.0	3.0
<i>Mean Scores of the 106 Questionnaire Respondents (SD)</i>	<i>2.58 (SD=.51)</i>	<i>2.82 (SD=.42)</i>	<i>2.76 (SD=.55)</i>

Table 4.2 above exhibits the resilience levels of the 11 selected interviewees by showing their individual mean scores on the three resilience scales: TSE, RS and CTSE. These scores were higher than or close to the mean scores of the 106

questionnaire respondents. Fifteen participants volunteered to be interviewed by filling-in the volunteer form. In the form they made self-perceived comments suggesting that they had gone through a process of building their resilience in the school context. I examined their self-perceived levels of resilience by calculating the mean scores of the three resilience scales to decide whether these 11 volunteers should be selected and invited to take part in individual interviews. The four volunteers who were not selected for the interview had not exhibited sufficient levels of resilience in their questionnaire responses and were listed out.

Data Collection

The 11 selected resilient EBC teachers were contacted by telephone to clarify the purpose of the interview and explain the details of its conduct. Consents from the school principals and the interviewees were gained. The interviews were conducted between April and June 2008. The interview protocol was sent to the selected participants three days before the interview.

Participants were interviewed at their school's interviewing room or their private office for the purpose of privacy. An interviewee consent form (Appendix D) was signed by each participant and pseudonyms were chosen to protect their confidentiality. Similar questions and probes were used for all respondents by drawing on the interview protocol, but the order in which they were posed was open, according to how each individual interview progressed (Denzin & Lincoln, 2005). It thus allowed the interview to flow more naturally and the interviewees to be more at ease and responsive.

The duration of each interview was between 45 minutes and one hour. Sufficient time was allowed for establishing rapport with the interviewee, and questioning and answering were conducted in a timely manner. Informal conversations preceded and ended the formal interview. Key points were noted during and after the interviews. The interviews were conducted in Cantonese, and were audio-recorded and transcribed verbatim in Chinese. A summary of key points from each transcript was sent to the interviewee for validation. The Chinese transcripts were then translated into English for analysis.

Data Analysis

The 'Interpretive Phenomenological Analysis' (IPA) approach of Smith and colleagues (Smith *et al.*, 2009) was used in analysing the transcripts from the interviews. Smith *et*

al. (2009) outlined the analytic process used in IPA which did not prescribe a single method but a set of common processes.

All transcripts, after being validated by the interviewees, were converted to 11 individual stories of the resilient EBC teachers. While pseudonyms were used to represent these teachers so that they would not be identified, each story was examined and coded with marginal remarks for clarification purposes. Coded qualitative data was then grouped under the emerged themes or possible patterns for analysis through the following process.

In the first reading of the interview transcripts, I highlighted the key words, different ideas, dimensions or categories in multiple colours of highlighters. The second round of coding was to give labels to the topics and those were written in the margins. On the third examination of the data, I cross-referenced the dimensions within each data set. After this round of coding, each individual data set was again examined. Major themes that addressed the research questions were incorporated into the individual and organisational matrices. When the matrices were complete, they allowed a quick analysis down rows and across columns to see what emerged. After careful re-checking of each story's codes and seeing that they contained the same types of themes, the cross-case matrices were modified to cluster data within matrices for the purpose of understanding related themes. Finally, this process allowed me to piece together themes that provided a picture of individual and organisational resilience factors and strategies of the 11 resilient EBC teachers.

Ethical Considerations

This study involved self-reported responses to a questionnaire and conversational interviews with research participants and, as such, involved 'human research'. The National Statement requires that human research is conducted in a way that complies with the values of respect for human beings, research merit and integrity, justice, and beneficence (NHMRC, 2015). The statements provided below indicate how this study complied with these values.

The following strategies were applied to ensure my conduct respected the rights of individual participants: (a) participants were informed of the full intent of the study; (b) voluntary consent was sought from each participant; (c) an agreement was obtained ensuring each participant's opportunity to opt out of the study at any time; (d)

participant and site confidentiality are being respected in all reports associated to the study.

The study was justifiable in terms of potential benefits to participants and to the wider community. The study used methods that were appropriate for achieving the aims of the study. It had merit by virtue of the demonstrated need for the research in the field and by virtue of the potential contribution to the knowledge and understanding of teacher stress, burnout and resilience especially for their professional growth and development, health and wellbeing.

The value of justice could be demonstrated in this study in the selection of participants, the EBC teachers. For the interviews, selection was based on acceptance of the first available potential participants who presented themselves as matching the sampling criteria. The study was likely to have a risk of anything more than inconvenience to participants and had potential benefits to the wider community in the youth education and teacher education.

The study was based on the voluntary consent of participants having been provided with the Information Sheet with a Consent Form (Appendix C) detailing information on the proposed research and the implications of their participation. Interview participants could further confirm their intention to participate on a separate Interviewee Consent Form (Appendix D), detailing their entitlement to withdraw without any adverse consequences.

The data from the structured survey questionnaires were reported by using coded numbers, while the interview participants selected their pseudonyms, in order to maintain confidentiality. All interviewee data have been reported here by using this reference name. The information on these procedures was included in the participant consent form and also communicated verbally to the participants at the beginning of the interviews. The real names of the participants have not been used at any time in reporting the results of the study. All research data have been stored in a locked filing cabinet. All audio and transcription files have been saved on my computer with password protection. The information collected, including the transcriptions, will be kept for five years after the completion of the study, after which all information pertaining to the study will be destroyed and erased from the database.

The study was undertaken with full ethical clearance from the University of New England Human Research Ethics Committee (HREC) in 2008 (Appendix F), through

which university I also collected all the data, before transferring my candidature to Griffith University in 2010.

Chapter Five: Findings from the Quantitative Data

Introduction

This chapter reports the results and findings from the quantitative data obtained from the survey questionnaires those pertaining to the first two research questions:

Q1: What are the stress, burnout and resilience levels of the EBC teachers?

Q2: How are the stress, burnout and resilience factors correlated?

Underpinning those questions were the following three assumptions, driven by the literature review:

1. EBC teachers' stress factors are related to their resilience factors.
2. Teachers' burnout may be predicted from the relationships between stress factors and resilience factors.
3. Resilience in the model has an important moderating effect on the variables that contribute to the prediction of stress and burnout among EBC teachers.

The following three hypotheses, then, were formulated for testing in this part of the research:

1. There will be statistically significant positive associations between the mean stress scores and the mean burnout scores.
2. There will be statistically significant negative associations between the mean resilience scores and the mean stress scores.
3. There will be statistically significant negative associations between the mean burnout scores and the mean resilience scores.

The findings are reported here in the following sections: (1) descriptive statistics of the respondents in terms of their demographic characteristics and teaching backgrounds; (2) statistical findings in respondents' levels of stress, burnout and resilience; (3) correlations between stress, burnout and resilience factors; and (4) conclusions from the quantitative findings pertinent to the research questions and hypotheses.

Descriptive Statistics of the Respondents

At the time of the field research, actually there were 146 full-time EBC teachers in seven social development schools (SDSs) in Hong Kong. Out of this total population,

106 teachers produced an acceptable response by completing the entire questionnaire, representing a relatively high response rate of 73 per cent (Table 5.1).

Table 5.1
Distribution of Acceptable Responses from EBC Teachers in the Seven SDSs

<i>School</i>	<i>Teacher Population</i>	<i>Acceptable Responses (%)</i>
A	40	29 (27.4)
B	25	21 (19.8)
C	18	16 (15.1)
D	17	11 (10.4)
E	18	8 (7.5)
F	17	10 (9.4)
G	11	11 (10.4)
Total	146	106 (100.0)

And for the demographic characteristics and teaching backgrounds of the respondents, Table 5.2 revealed the details as below.

Table 5.2
Demographic Characteristics and Teaching Backgrounds of Respondents (n=106)

<i>Demographic variable</i>	<i>Frequency</i>	<i>Percentage</i>
Gender		
Male	58	55
Female	48	45
Age		
20 – 30	28	26.4
31 – 40	34	32.1
41 – 50	32	30.2
50 +	12	11.3
Years of Teaching Experience		
0.5 – 1	12	11.3
2 – 5	19	17.9
6 – 10	28	26.5
11 – 15	17	16.0
16 – 20	10	9.4
21 – 25	7	6.6
26 – 30	9	8.5
31 – 35	2	1.9
35 +	2	1.9
Teaching Level		
Primary Only	25	33.6
Secondary Only	72	67.9
Primary & Secondary	8	7.5
Secondary & Post-Secondary	1	0.9

Respondents were fairly evenly distributed by gender, reflecting the population distribution (55 % men; 45 % women). By age, they were fairly evenly distributed across the three age categories between 20 to 50 years old (26.4% 20-30 years old; 32.1% 30-40 years old and 30.2% 40-50 years old), only 12 respondents (11.3 %) being older than 50 years. This implied the teachers' ecology in the SDSs were healthy and balanced as they had varied but evenly distributed age group of teachers from novice to veteran.

Years of teaching experience represented the solid depth of experience in the population, although it was skewed towards fewer years of experience, the modal category being that of 6-10 years (26.5 % of the respondents), with the categories on either side carrying the majority of the remainder (2-5 years, 17.9 %; 11-15 years, 16 %). Only 13 respondents (12.3 %) had experience in excess of 25 years. Varied levels of teaching experiences in the SDSs allowed teaching teams to have a wider experience to share and to collaborate in their teaching and learning developments.

The teaching levels of respondents showed a concentration in secondary schooling, represented by 72 respondents (67.9 %), with 25 (33.6 %) in primary schools. This distribution reflected that of the total class number of the seven schools in which there were 51 classes (72.8%) at secondary level and 19 (27.2%) at primary.

Of the 106 EBC teachers in the study, 94 (89 %) had received some type of special education training, at some level, in working with students with special educational needs (SEN) (Table 5.3). Only a small proportion (11 %) had not received any SEN-related trainings.

Table 5.3

Special Education Trainings Received by the 106 Respondents (n=106)

<i>SEN Training Courses attended #</i>	<i>No. of Teachers attended *</i>	<i>%</i>
Not attending any SEN Course	12	11
Basic Course (30 hours)	54	51
Advanced Course (60 hours)	24	23
Thematic Course (90 hours)	19	18
Full-time 1-yr SEN Certificate Program	35	33
Degree / Post-graduate SEN Program	5	5

The total number of courses attended was 137

** Some of the respondents had attended more than one course.*

Basic, Advanced and Thematic Courses were short courses recommended for SEN teachers by the Education Bureau of Hong Kong under the Teacher Professional Development program.

The majority of respondents, however, had only participated in short courses as recommended by Education Bureau: 51 per cent having attended a Basic Course, 23 per cent an Advanced Course, and 18 per cent a Thematic Course. 38 per cent had undertaken a formal program of SEN study: 33 per cent having completed a full-time one-year certificate in special education, and 5 per cent a bachelor or master degree in special education.

Stress, Burnout and Resilience Levels of the EBC Teachers

The first research question addressed in this study was that of the stress, burnout and resilience levels of the EBC teachers. Following a brief sub-section commenting on the internal consistency of the measures used, the levels of stress, burnout and resilience are presented here in three further sub-sections.

Descriptive Statistics of the Measures

The internal consistencies of all measures (teacher stress, teacher burnout and teacher resilience) were estimated by the Cronbach Alpha test as illustrated in Table 5.4 below. All the scales were seen to have relatively good internal consistency, with alpha coefficients for the source of teacher stress subscales ranging from 0.78 to 0.86; for the burnout subscales from 0.65 to 0.83; and for the resilience subscales from 0.91 to 0.95.

Table 5.4

Internal Consistency of the Measures of Stress, Burnout and Resilience (n=106)

<i>Measure</i>	<i>N of item</i>	<i>M</i>	<i>SD</i>	<i>Cronbach's α</i>
Teacher Stress (28 Items) *				
Student Misbehaviour (SMB)	8	2.40	.46	.84
Lack of Professional Recognition (PR)	7	2.42	.43	.78
Poor School Ethos (SE)	5	2.60	.56	.79
Workload & Time Pressure (WLTP)	8	2.63	.49	.86
Maslach Burnout Inventory-Educator Survey MBI-ES (22 Items)^				
Emotional Exhaustion (EE)	9	2.23	.51	.83
Depersonalisation (DEP)	5	1.91	.36	.65
Personal Accomplishment (PA)	8	2.65	.41	.76
Resilience (44 Items) #				
Teacher Sense of Efficacy (TSE)	12	2.58	.51	.91
Resilience Scale (RS)	20	2.82	.42	.91
Collective Teacher Self-efficacy (CTSE)	12	2.76	.55	.95

Note: All measures were set to a 4-point Likert scale ranging from 1 to 4.

*Source of Teacher Stress (STS) scale with SMB, PR, SE, & WLTP factors was adopted to measure teacher stress.

^MBI-ES with EE, DEP, & PA factors was adopted to measure teacher burnout.

#TSE, RS, & CTSE scales were adopted to measure teacher resilience.

Stress Levels of EBC Teachers

In this study, the mean scores on the four stressors were: student misbehaviour (M=2.40, SD=.46); lack of professional recognition (M=2.42, SD=.43); poor school ethos (M=2.60, SD=.56); and workload and time pressure (M=2.63, SD=.49). These scores represent moderate levels of EBC teacher stress, with mean scores of between two ('little') and three ('strong') on the 4-point Likert scale (1=none, 2=little, 3=strong, 4=very strong) for the majority of the statements in the questionnaire. More details might be illustrated by Table 5.5 as follows.

Table 5.5

Item Mean Scores on the Stressors of the EBC Teachers

(n=106)

<i>Stressor</i>	<i>Item Statements</i>	<i>M</i>	<i>SD</i>
Student Misbehaviour (SMB) (I feel stressed when I need to...)	...monitor students' behaviour.	2.40	.672
	...face students' general low standard.	2.08	.672
	...face students' poor attitude to learn.	2.38	.609
	...face students' impolite behaviour.	2.35	.704
	...be responsible for students' conduct.	2.53	.636
	...maintain class discipline.	2.46	.664
	...face and handle a noisy class.	2.33	.613
	...face students with emotional and behavioural challenges.	2.65	.718
Lack of Professional Recognition (PR) (I feel stressed when I am NOT able to have ...)	...feedback on my personal performance	2.49	.573
	...high status of the teaching profession	2.50	.606
	...the power of influencing educational policy	2.01	.775
	...time for further study	2.43	.676
	...participation in decision-making	2.38	.682
	...recognition and respect from the public	2.41	.644
	...a sense of achievement	2.67	.581
Poor School Ethos (SE) (I feel stressed when I ...)	...find that school has a loose disciplinary policy	2.65	.704
	...learn of negative attitudes among my colleagues	2.56	.829
	...hold different ideas from the administrators	2.34	.702
	...find that the school lacks an effective consultation system for us.	2.62	.723
	...find that there is a lack of co-operation among staff	2.81	.806
Workload & Time Pressure (WLTP) (I feel stressed when I...)	...have insufficient time for preparing lessons	2.59	.659
	...spend too much time on committee meetings	2.76	.737
	...have too much work to do	2.78	.662
	...find the pace of the school day too fast	2.48	.665
	...have not enough time to do the work	2.82	.673
	...lack sufficient time for marking	2.35	.718
	...lack sufficient time to work with individual students	2.60	.713
	...have to spend too much time working after school	2.63	.747

Student Mis-behaviour (SMB): EBC teachers felt stressed when they needed to face students with emotional and behavioural challenges (M=2.65, SD=0.718) and to be responsible for students' conduct (M=2.53, SD=0.636).

Lack of Professional Recognition (PR): EBC teachers found themselves stressed when they were not able to have a sense of achievement (M=2.67, SD=0.581) and did not experience teaching as having a high professional status (M=2.50, SD=0.606).

Poor School Ethos (SE): EBC teachers experienced stress when they found that the schools in which they worked lacked co-operation among staff (M=2.81, SD=0.806) and had a loose disciplinary policy (M=2.65, SD=0.704).

Workload and Time Pressure (WLTP): EBC teachers felt stressed when they had insufficient time to complete their work (M=2.82, SD=0.673) and when they had too much work to do (M=2.78, SD=0.662).

Burnout Levels of EBC Teachers

The Maslach Burnout Inventory – Educator Survey (MBI-ES), developed by Maslach and Jackson (1981) to assess burnout, comprises 22 items loading onto the three factor structure mentioned above: emotional exhaustion (EE, nine items), depersonalisation (DEP, five items), and personal accomplishment (PA, eight items). The inventory, then, produces three separate scores, one for each factor. The combination of high factor scores on EE and DEP, and a low factor score on PA, corresponded to a high level of burnout.

In the present study, all three burnout subscales fell within the factor score ranges representing a moderate level (Table 5.6). This implies that the overall burnout levels of the EBC teachers were moderate.

Table 5.6
Scoring on Burnout Factors of the EBC Teachers

<i>Burnout Subscale</i>	<i>Factor Score</i>	<i>Mean</i>	<i>Rating (factor score range)*</i>
Emotional Exhaustion (9 items)	20.06	2.23	Moderate (from 13 to 24)
Depersonalisation (5 items)	9.54	1.91	Moderate (from 7 to 13)
Personal Accomplishment (8 items)	21.21	2.65	Moderate (from 11 to 21)

* The rating (the factor score range of rating the three subscales) was a modification of the Lau, Yuen and Chan (2005) study of Hong Kong secondary teacher burnout in Hong Kong.

The four-point Likert scale (1=never, 2=occasionally (once a week), 3=frequently (a few times a week), 4=very frequently(most of the week)) was employed in analysing the 22 items detailing the three burnout subscales which provided a further clearer picture of the burnout levels of EBC teachers (Table 5.7), as follows.

Table 5.7

Item Mean Scores on the Burnout Scales of the EBC Teachers*

(n=106)

<i>Subscale</i>	<i>Item Statement</i>	<i>M</i>	<i>SD</i>
Emotional Exhaustion (EE)	I feel emotionally drained from teaching	2.19	.554
	I feel used up at end of the working day	2.63	.681
	I feel fatigued in getting up	2.47	.759
	I feel strained from working with people	2.03	.577
	I feel burned out from teaching	2.25	.715
	I feel frustrated by my job	2.11	.760
	I feel I am working too hard at my job	2.43	.756
	I feel stressed when directly working with people	2.00	.602
Depersonalisation (DEP)	I feel I am at the end of my rope	1.95	.809
	I feel treating students as impersonal objects	1.91	.763
	I have become callous towards people from being a teacher	1.91	.750
	I worry about getting hardened emotionally by my job	2.18	.753
	I do not care what happen to students	1.48	.605
Personal Accomplishment (PA)	I feel blamed by students for problems	2.06	.659
	I can easily understood students' feelings	2.90	.675
	I can effectively dealt with students' problems	2.66	.675
	I can positively influence others' lives through teaching	2.54	.745
	I feel energetic	2.53	.636
	I can easily create a relaxed atmosphere with students	2.65	.648
	I feel exhilarated after working closely with students	2.66	.729
	I can accomplish worthwhile things in my job	2.62	.624
	I can deal calmly with emotional problems in work	2.65	.602

* *Bolded items are mentioned further in the text.*

A Moderate Level of Emotional Exhaustion (EE): The EBC teachers mostly presented a mean score of two ('occasionally') or three ('frequently') in the four-point Likert scale on the majority of the EE subscale items. Among the nine EE subscale items, the EBC teachers gave higher mean scores on the: 'I feel used up at end of the working day' (mean score 2.63), 'I feel fatigued in getting up' (mean score 2.47), 'I feel I am working too hard at my job' (mean score 2.43), and 'I feel burned out from teaching' (mean score 2.25). These item statements revealed that the teachers occasionally or frequently felt physically and emotionally exhausted after work in school, reducing their capacity to respond emotionally to their students.

A Moderate Level of Depersonalisation (DEP): The EBC teachers mostly produced a mean score of one ('never') or two ('occasionally') in responding to the majority of the DEP item. Scorings in the five-item statements of the DEP subscale were moderate with four items whose mean scores were around two, implying that the teachers, although feeling emotionally exhausted, did not see themselves as becoming strongly callous and depersonalised.

A Moderate Level of Personal Accomplishment (PA): The EBC teachers mostly produced a mean score of two ('occasionally') or three ('frequently') in the four-point Likert scale on the majority of the PA items. The mean scores of all eight items of the subscale were higher than average, at 2.65. These high scores indicated greater personal accomplishment among the EBC teachers and ran counter to the conditions of burnout. This scoring also implied that the EBC teachers were less prone to burnout, through their positive outlook on their careers.

Resilience Levels of EBC Teachers

The resilience levels of the EBC teachers were measured by three scales: (1) Teachers' Sense of Efficacy (TSE) Scale; (2) Resilience Scale (RS); and (3) Collective Teacher Self-Efficacy (CTSE) Scale. The results were as follows:

Teachers' Sense of Efficacy (TSE) Scale: On the four-point Likert scale (1=very little, 2= some influence, 3= quite a bit, 4=a great deal), the EBC teachers presented mostly mean scores of between two and three in response to the three areas in TSE: student engagement, instructional strategies, and classroom management (Table 5.8).

This indicates a moderate to high level of self-efficacy among the EBC teachers. Among the 12 items in the TSE, only three were given a mean score slightly lower than 2.50: 'motivate students who show low interest in school work (mean score 2.42), 'help

students to value learning’ (mean score 2.49), and ‘use a variety of assessment strategies’ (mean score 2.49). The item ‘assist families in helping their children do well in school’ was given the lowest mean score at 2.13. In the two areas of instructional strategies and classroom management, for seven out of the eight items, the mean scores were higher than 2.60, suggesting that the EBC teachers had quite a high level of self-perceived efficacy in these two areas.

Table 5.8
Scoring of EBC Teachers on Teachers’ Sense of Efficacy (TSE) Scale* (n=106)

<i>Area</i>	<i>Item Statement (I am able to...)</i>	<i>M</i>	<i>SD</i>
Student	motivate students who show low interest in school work	2.42	.674
Engagement	get students to believe they can do well in school works	2.60	.686
	help students to value learning	2.49	.733
	assist families in helping their children do well in school	2.13	.744
Instructional Strategies	craft good questions for students	2.62	.696
	use a variety of assessment strategies	2.49	.733
	provide alternative explanation or examples when students are confused	2.80	.668
	implement alternative strategies in my classroom	2.62	.668
Classroom Management	control disruptive behaviour in the classroom effectively	2.72	.814
	get students to follow classroom rules	2.73	.684
	calm a student who is disruptive	2.65	.677
	establish a classroom management system with students	2.73	.763

* *Bolded items are mentioned further in the text.*

Resilience Scale (RS): The EBC teachers presented mostly mean scores of two (‘sometimes’) or three (‘often’) in the four-point Likert scale (1=rarely, 2=sometimes, 3=often, 4=very often) on the majority of items (Table 5.9). The mean scores on all items were over the mid-point, with the highest on ‘I learn valuable lessons from my experiences and from others’ (mean score 3.06), while the lowest was on ‘I have converted misfortune into good luck’ (mean score 2.55). These results suggested that the EBC teachers showed moderate to high levels of resilience on the Resilience Scale.

Table 5.9**Scoring on EBC Teachers' Resilience Scale (RS)****(n=106)**

<i>Item</i>	<i>Item Statements</i>	<i>M</i>	<i>SD</i>
1	I calm myself and focus on taking useful actions in a chaotic situation	2.75	.687
2	I am optimistic as I see difficulties as temporary and expect to overcome them	2.88	.700
3	I can tolerate high levels of ambiguity and uncertainty in situations	2.66	.660
4	I adapt quickly to new developments	2.81	.649
5	I can find humour in rough situations	2.79	.765
6	I am able to recover emotionally from losses and setbacks	2.87	.587
7	I feel self-confident	2.86	.736
8	I am curious	2.97	.710
9	I learn valuable lessons from my experiences and from others	3.06	.645
10	I am good at solving problems	2.80	.668
11	I am good at making things work well	2.76	.578
12	I am flexible	2.92	.643
13	I am always myself	2.76	.724
14	I prefer to work without a written job description	2.60	.764
15	I read people well and trust my intuition	2.77	.666
16	I am a good listener	3.02	.617
17	I am non-judgmental about others	2.66	.675
18	I hold up well during tough times	2.80	.653
19	I have converted misfortune into good luck	2.55	.745
20	I have been made stronger by difficult experiences	2.98	.676

Collective Teacher Self-Efficacy (CTSE) Scale: On the four-point Likert scale (1=not at all true, 2=almost not true, 3=moderately true, 4=completely true) for CTSE, EBC teachers recorded mean scores for all 12 items: either two ('almost not true') or three ('moderately true') (Table 5.10). All items had mean scores over the mid-point on the scale, with the highest being 'Teachers in my school are able to create a positive school climate through our shared efforts, even if this causes a tremendous workload for us' (mean score 2.86), while the lowest was 'Teachers in my school are able to establish innovative approaches to education even when faced with setbacks' (mean score 2.68). This suggested that the EBC teachers' CTSE was at a moderate to high level.

Table 5.10**(n=106)*****Scoring of EBC Teachers on Collective Teacher Self-efficacy (CTSE) Scale***

Item	Item Statement (Teachers in my school are able to ...)	M	SD
1	reach difficult students as we are all committed to the same educational goals	2.77	.759
2	establish innovative approaches to education even when faced with setbacks	2.68	.737
3	guarantee high instructional quality even when resources are limited	2.71	.661
4	achieve educational goals because we stick together and do not get demoralised by the day-to-day hassles of this profession	2.72	.790
5	come up with creative ways to improve the school environment, even without support from others	2.70	.650
6	accomplish something positive at school since we are a competent team of teachers that grows every time we are challenged	2.75	.633
7	learn from our mistakes and setbacks in the classroom as long as we trust our shared competence	2.85	.659
8	improve the instructional quality of our school in spite of system constraints	2.75	.587
9	develop and carry out educational projects in a cooperative manner even when difficulties arise	2.81	.732
10	lay out our educational goals in a convincing manner to even the most difficult parents because we present ourselves as a cohesive and competent team of teachers	2.79	.672
11	create a positive school climate through our shared efforts, even if this causes a tremendous workload for us	2.86	.710
12	deal effectively with even the most critical events because we are able to draw upon the social network that exists within our school	2.78	.647

Correlations between Stress, Burnout and Resilience Factors

In analysing the data to address the second research question – “How are the stress, burnout and resilience factors correlated?” – the Pearson product moment correlation coefficient (r) was used to compare the scores obtained from the survey questionnaire to determine the presence of significant association between the stress, burnout and resilience factors. The correlation coefficients between all the variables comprising the three scales were calculated, together with their levels of non-random probability. Preliminary analyses were performed to ensure no violation of the assumptions of normality, linearity, and homoscedasticity.

The inter-correlations of the ten subscales (Table 5.11) indicated correlation coefficients (r) ranging from -1 to $+1$, with significant correlations between the ten subscales of stress, burnout and resilience. Interpretation followed the guidelines suggested by Cohen (1988, pp.79-81), the strength of each correlation coefficient,

whether positive or negative, being low or slight (from zero to +/- 0.29), moderate or medium (+/- 0.30 - +/- 0.49), or high (over +/- 0.50). The probability of each correlation coefficient being a non-random occurrence was interpreted as being insignificant ($p = < 0.5$), slightly significant ($p < 0.05$), significant ($p = < 0.01$), or highly significant ($p = < 0.001$).

Table 5.11

Correlation Coefficients (r) among the Scores on the Ten Subscales (n=106)

		Stress				Burnout			Resilience		
		SMB	PR	SE	WLTP	EE	DEP	PA	TSE	RS	CTSE
Stress	SMB	1									
	PR	.17*	1								
	SE	.11**	.14**	1							
	WLTP	.15**	-.05*	.32**	1						
Burnout	EE	.36***	.20*	.27**	.33**	1					
	DEP	.26**	.08*	.06	.13**	.42***	1				
	PA	-.23*	-.22*	.26**	.18**	-.34***	-.21*	1			
Resilience	TSE	-.28**	-.39***	.26**	.26**	-.14**	-.11*	.62***	1		
	RS	-.17**	-.07**	.17	-.02	-.18**	-.17	.58***	.39***	1	
	CTSE	-.14**	-.29**	-.15**	.01**	-.43***	-.29**	.34***	.37***	.33**	1

Notes: * $p < .05$, ** $p < .01$, *** $p < .001$

The Coherence of the Stress Sub-scales

Among the four Stress Sub-scales, there was a slight significant and vert slight negative correlation between PR and WLTP ($r = -0.05$; $P < 0.05$). There were yet significant and slight positive correlation between SMB and SE ($r = 0.11$; $P < 0.01$); SMB and WLTP ($r = 0.15$; $P < 0.01$); PR and SE ($r = 0.14$; $P < 0.01$). There was a slight significant and slight positive correlation between SMB and PR ($r = 0.17$; $P < 0.05$); and there was a yet significant, moderate positive correlation between SE and WLTP ($r = 0.32$; $P < 0.01$).

These correlations point to a high level of coherence between just two of the four sub-scales used to measure stress: those of SE and WLTP. It suggested that more weight

should be given to those two sub-scales in analysing the associations between stress and burnout, and between stress and resilience: the PR and SMB sub-scales being of more dubious value.

The Coherence of the Burnout Sub-scales

Among the three Burnout Sub-scales, there was a moderate, yet highly significant negative correlation between EE and PA ($r=-0.34$, $P<0.001$), and a moderate, yet highly significant positive correlation between EE and DEP ($r=0.42$, $P<0.001$), suggesting that increase in level of emotional exhaustion was associated with decrease in personal accomplishment, while increase in level of emotional exhaustion was associated with increase in level of depersonalisation. And there was a slight, yet significant negative correlation between DEP and PA ($r=-0.21$; $P<0.05$) indicating that an increase in the level of depersonalisation was associated with a decrease in the level of personal accomplishment.

These correlations point to an acceptably high level of coherence among the three sub-scales used to measure burnout, supporting their use in this study as joint measures of teacher burnout. Accordingly, all three sub-scales were retained in analysing the associations between burnout and stress and between burnout and resilience.

The Coherence of the Resilience Sub-scales

Among the three Resilience Sub-scales, there was a highly significant and moderate positive correlation between TSE and RS ($r=0.39$, $P<0.001$), suggesting that high levels of teacher self-efficacy were associated with high levels of teacher resilience. There was also a highly significant and moderate positive correlation between TSE and CTSE ($r=0.37$, $P<0.001$), with high levels of teacher self-efficacy being associated with high levels of collective teacher self-efficacy. RS and CTSE were moderately significantly and positively correlated ($r=0.33$, $P<0.01$), suggesting that increased resilience levels were associated with an increased sense of collective teacher self-efficacy.

These correlations point to a high level of coherence among the three sub-scales used to measure resilience, supporting their use in this study as moderators to teacher stress. Accordingly, all three sub-scales were retained in analysing the associations between stress and resilience and between burnout and resilience.

The Associations between Stress and Burnout

As shown in Table 5.11, SMB had a moderate and highly significant positive correlation with EE ($r=0.36$, $P<0.001$); a slight and significant positive correlation with DEP ($r=0.26$, $P<0.01$). This meant that high levels of student misbehaviour were associated with high levels of emotional exhaustion and high levels depersonalisation. SMB also had a slight, yet significant negative correlation with PA ($r=-0.23$, $P<0.05$), suggesting that increases in the level of student misbehaviour were associated with decreases in the level of personal accomplishment.

PR had a slight yet significant positive correlation with EE ($r=0.20$, $P<0.05$) suggesting that increases in the level of lacking professional recognition was associated with increases in the level of emotional exhaustion. PR had also a slight yet significant negative correlation with PA ($r=-0.22$, $P<0.05$), meaning that increases in the level of lacking professional recognition associated with decreases in the level of personal accomplishment. And PR had a very slight yet significant positive correlation with DEP ($r=0.08$, $P<0.05$), implying that increases in the level of lacking professional recognition could be associated with increases in the level of depersonalisation.

SE had a slight and yet significant positive correlation with both EE ($r=0.27$, $P<0.01$) and PA ($r=0.26$, $P<0.01$), suggesting that increases in the level of poor school ethos were associated with increases in the level of emotional exhaustion and increases in the level of personal accomplishment. SE also had a very slight but insignificant correlation with DEP whose association was not very clear.

WLTP had a moderate and significant positive correlation with EE ($r=0.33$, $P<0.01$), suggesting that increases in the level of workload and time pressure were associated with increases in the level of emotional exhaustion. WLTP also had a very slight and yet significant positive correlation with both PA ($r=0.18$, $P<0.01$) and DEP ($r=0.13$, $P<0.01$), implying increases in the level of workload and time pressure associated with increases in the levels of PA and DEP.

From the above correlation analyses, they testified the first hypothesis that stress and burnout were positively associated, (either direction positively or negatively in their influence to each other, as dependent from different perspectives of each of the factors in stress and burnout).

The Associations between Stress and Resilience

From Table 5.11, SMB was found to have a slight and yet significant negative correlation with TSE ($r=-0.28$, $P<0.01$), suggesting that an increase in levels of student misbehaviour was associated with a decrease in levels of teacher sense of efficacy. SMB also had a slight and yet significant negative correlation with both RS ($r=-0.17$, $P<0.01$) and CTSE ($r=-0.14$, $P<0.01$), meaning an increase in levels of student misbehaviour associated with a decrease in both levels of resilience and collective teacher self-efficacy.

PR had a moderate and highly significant negative correlation with TSE ($r=-0.39$, $P<0.001$); a very slight and significant negative correlation with RS ($r=-0.07$, $P<0.01$); a slight and yet significant negative correlation with CTSE ($r=-0.29$, $P<0.01$), meaning that high levels of lacking professional recognition were associated with low levels of teacher sense of efficacy, resilience and collective teacher self-efficacy.

SE was found to have a slight and significant positive correlation with TSE ($r=0.26$, $P<0.01$), suggesting increases in levels of poor school ethos were associated with increases in levels of teacher sense of efficacy. SE had an insignificant correlation with RS, whose association was yet not very clear; SE also had a slight and yet significant negative correlation with CTSE ($r=-0.15$, $P<0.01$), meaning increases in levels of poor school ethos were associated with decreases in levels of collective teacher sense of efficacy.

WLTP had a slight and significant positive correlation with TSE ($r=0.26$, $P<0.01$), meaning that increases in levels of work load and time pressure were associated with increases in levels of teacher sense of efficacy. WLTP also had an insignificant correlation with RS whose association was not yet very clear. And WLTP was also found to have a very slight and significant positive correlation with CTSE ($r=0.01$, $P<0.01$) implying that increases in levels of work load and time pressure were associated with increases in levels of collective teacher self-efficacy.

From the above correlation analyses, they testified the hypothesis that stress and resilience were negatively associated, (either direction positively or negatively in their influence to each other, as dependent from different perspectives of each of the factors in stress and resilience).

The Associations between Burnout and Resilience

As Table 5.11 revealed, there were slight and yet significant negative correlations between both EE and TSE ($r=-0.14$, $P<0.01$), EE and RS ($r=-0.18$, $P<0.01$); while a moderate and highly significant negative correlation was found between EE and CTSE ($r=-0.43$, $P<0.001$). These suggested that increases in levels of emotional exhaustion were associated with decreases in teacher sense of efficacy, resilience and collective teacher self-efficacy.

DEP was found to have a slight, yet significant negative correlation with TSE ($r=-0.11$, $P<0.05$), which meant increases in levels of depersonalisation were associated with decreases in levels of teacher sense of efficacy. DEP also had a very slight but insignificant correlation with RS whose association was not clear. DEP was also found to have a slight and significant negative correlation with CTSE ($r=-0.29$, $P<0.01$), meaning increases in levels of depersonalisation were associated with decreases in levels of collective teacher self-efficacy.

PA was found consistently to have a strong and highly significant positive correlation with both TSE ($r=0.62$, $P<0.001$) and RS ($r=0.58$, $P<0.001$), and a moderate and highly significant positive correlation with CTSE ($r=0.34$, $P<0.001$). These all suggested that increases in levels of personal accomplishment were associated with increases in levels of teacher sense of efficacy, resilience, and collective teacher self-efficacy.

From the above correlation analyses, they testified the third hypothesis that burnout and resilience were negatively associated.

Conclusions

The degree of coherence of the three core concepts – teacher stress, burnout and resilience – was found to be variable. Those of teacher burnout and resilience both emerged as reasonably coherent and hence unitary. The concept of stress, though, suggested that it had two different dimensions in the study: one encompassed by the student misbehaviour (SMB) and workload and time pressure (WLTP) sub-scales, the others of the poor school ethos (SE) and lack of professional recognition (PR) sub-scales. That complexity of the stress concept here needs to be acknowledged in interpreting the findings of this study.

With respect to the first question – that of “what were the stress, burnout and

resilience levels of the EBC teachers?” – the findings indicated that the stress levels of the EBC teachers were moderate; the burnout levels of the EBC teachers were also moderate; the EBC teachers were found to have moderate to high levels of resilience.

Whereas, in relation to the two research questions established earlier and revisited at the beginning of this Chapter, the findings suggested answers as follows:

In response to the first hypothesis – that there would be statistically significant positive association between the mean stress scores and the mean burnout scores – the analyses indicated that the stress factors of student misbehaviour, lack of professional recognition, poor school ethos, and workload and time pressure correlated positively with total teacher burnout as well as the factors of emotional exhaustion and depersonalisation. Teachers who felt high levels of stress also tended to experience high levels of burnout, high levels of emotional exhaustion and depersonalisation, and low levels of personal accomplishment.

In response to the second hypothesis – that there would be a statistically significant negative association between the mean resilience scores and the mean stress scores – the analysis indicated that teacher sense of efficacy correlated negatively with student misbehaviour and lack of professional recognition. Also, collective teacher self-efficacy were negatively associated with lack of professional recognition.

In response to the third hypothesis – that there would be a statistically significant negative association between the mean burnout scores and the mean resilience scores – the analyses indicated that low levels of emotional exhaustion and depersonalisation were associated with high levels of collective teacher self-efficacy. The analysis also suggested that high levels of teacher sense of efficacy, individual resilience and collective teacher self-efficacy were associated with high levels of personal accomplishment. That implied there was a statistically significant negative association between the mean burnout scores and the mean resilience scores.

With respect to the second question – that of “how the stress, burnout and resilience factors were correlated?” – as depicted in Table 5.11, stress factors, burnout factors, and resilience factors were significantly interrelated, and their correlations were in the direction as correctly expected in the hypotheses. Above all, the validation of the relationships among stress, burnout and resilience had a profound implication that stress and burnout became predictable with the identification and employment of resilience as an important moderator.

Chapter Six: Dimensions of Resilience

Introduction

This chapter presents findings from the semi-structured interviews, examining the factors that teachers saw as enhancing their resilience as well as the strategies teachers implemented to enhance it. The interviews were conducted with 11 resilient EBC teachers who had experienced adversity but showed resilience by engaging back into teaching. In the interviews, the influencing factors and strategies employed by these EBC teachers to become resilient and to persist teaching in their challenging school environment were explored. Although this small sample could not produce statistically reliable data, in-depth interviews were used to reveal what shaped the EBC teachers' resilience development in the hope that findings could be generalised across contexts for other teachers.

This part of the research addressed the following two research questions in the study:

Q3. What are the possible individual dimensions of EBC teacher resilience?

Q4. What are the possible organisational dimensions of EBC teacher resilience in the social development schools?

The findings are reported here in the following sections: (1) the respondents and their context, (2) identifying dimensions of teacher resilience, (3) individual dimensions of teacher resilience, (4) organisational dimensions of teacher resilience, and (5) an overview of the identified dimensions of resilience.

Narrative extracts from the interviews are used in this chapter to evidence and ground the points made, especially to present the individual teachers' experience of each dimension.

In this chapter, italicised text is used to identify those narrative extracts, which are attributed in each case to their author, using his or her pseudonym.

The Respondents and their Context

The 11 interviewees are here introduced, using the pseudonym selected by each one. The introduction is intended to allow the reader to build a coherent profile of the respondents, but without providing sufficient information to permit their identification by any third parties. Demographic information, their teaching responsibilities at the

time of the interviews, their teaching experience, and my impression of their teaching personalities are presented in a summary table (Table 6.1) for all 11 interviewees.

The respondents comprised three females and eight males. This gender breakdown might be less than desirable in research terms. However, the imbalance itself reflected the gender distribution of resilient teachers in the seven social development schools. Two of the interviewees were from the primary education sector and nine from the secondary. All had been teaching in their present schools for at least one year. Three of them had had about two years of teaching experience, five had been teaching for ten to 15 years, one for 25 years, and two for more than 30 years. Three of the interviewees were aged between 25 and 30 years, four between 31 and 40, two between 41 and 50, and the remaining two above 50. The youngest three were single, while the other eight were married.

1. Ah Lee

Ah Lee was a veteran teacher with rich experiences in secondary education, special education, and teacher education. He had joined his current school after having recovered from a psychosomatic breakdown. He described his past experience of being involved in a political struggle in the previous school as a nightmare; but he claimed that it had been a valuable experience in that it had alerted him to rethink his career. *I would never wish to go through anything like that again, but it was one of the best things that ever happened to me.* He said that he could have taken early retirement had he desired, but that he had decided to come to the current school to teach the EBC students with his passion and goal of *making some change for the good* in Hong Kong's education scene.

He further described his happiness and sense of fulfilment by admitting that his supervisor, the school principal, was the *right person* he could ever have married [a metaphor, meaning a good match] in the education field. Support and recognition from the school principal made him, as he said, dedicated to his work; the supportive school climate helped him to have a sense of belonging; and respect from colleagues gave him professional recognition as a good mentor and a good leader.

Table 6.1***Demographic and Teaching Details of the Interview Respondents***

Pseudonym	Sex	Age	Marital Status	Subject / Duty or Post	Teaching Experience in Years	General Impression Gained from the Interviews
Ah Lee	M	55	Married	Physical Education /Discipline Master	Total Teaching Experience (TTE)=33 *(EBC=10)	Energetic, positive, committed, helpful, flexible, academic, experienced; as mentor/leader, good relationships with students, colleagues, and management.
Alice	F	28	Single	Maths & Information Technology (IT)	TTE=1 *(EBC=1)	Fresh, committed, kind-hearted, joyful, and flexible, a positive thinker, good listener, and a good team player.
Wing	M	29	Single	Visual Art	TTE =1.5 *(EBC=1.5)	Energetic, creative, easy-going, committed, reflective thinker, cooperative, and positive.
Duck	M	44	Married	English	TTE = 25 *(EBC=1)	Sporty, sincere, committed, reflective thinker, life-long learner, academic, positive, and adjusted well.
Clayton	M	27	Single	Physical Education (PE)	TTE=1 *(EBC=1)	Fresh, quick learner, friendly and young, with energy, sense of humour, helpful, dedicated, positive thinker.
Ah Man	M	38	Married	Business	TTE = 14 *(EBC=1)	Passionate, calm and stable, positive, flexible, cooperative, committed, and with strong faith.
Peter	M	39	Married	IT / Science Panel Head	TTE = 14 *(EBC= 14)	Experienced, passionate, open, committed, kind and helpful, academic, good as a mentor and leader, positive, and with strong faith.
Kelvin	M	35	Married	IT / Maths Panel Head	TTE = 10 *(EBC=5)	Academic, experienced, passionate, committed, with love and care, strong family support, positive, optimistic, and a reflective thinker.
Alvin	M	42	Married	Business / English	TTE = 12 *(EBC=2)	Over 10 years experiences in business sector, academic, helpful, tolerant, committed, positive thinker, and with strong faith.
Monica	F	36	Married	English / Panel Head	TTE = 15 *(EBC= 3)	Helpful, committed, kind and flexible, positive, creative, assertive, and cooperative.
Cathy	F	56	Married	English / Vice Principal	TTE=30 *(EBC= 27)	Experienced, passionate, committed, good at counselling, academic, a good mentor and leader, flexible, and with sense of humour and strong faith.

*Numbers in parenthesis represent respondents' teaching experience specifically with EBC students.

Ah Lee was keen to organise activities for teacher colleagues, students' parents, and school students. With his network in the education sector and local community, he presented the school to the public with new and positive images. *The boys behaved very well when they participated in school activities and social services in community.* At school, not only did he himself bounce back, but he also led his students to bounce back and regain self-confidence. He was a resilient teacher and led the school towards resilience. As he described his experience: *Respect, trust and supportive relationship here were the resilience factors leading to success.*

He was a very helpful and genuine person. His colleagues described him as a really good man. The principal described him as *an education expert with heart and the drive to be helpful and reliable.*

2. Alice

Alice was a novice teacher. She stated that *student behaviour and classroom management* were her biggest challenges in her first year of teaching in her school. She mentioned that, at the beginning, she believed strict school rules and punishment to be the appropriate ways to control students and to make them behave: *The school did not have structural disciplinary policy; it was too human and too lenient.*

She was assigned to teach mathematics and information technology, which were not her major elective subjects in college. Music was her major study in her teacher education degree, but the school had no music class. *I am new here, I find teaching life very hard. I once considered resigning from the teaching post, but fortunately I received a mentor's help and peer support to carry on.*

She was a positive, flexible and creative young lady. She said that she loved music and believed that music could change a student's personality and behaviour through music therapy. In her second month of teaching at the school, she organised a music interest class – an extra-curricular activity after school – which had attracted a group of students (5 boys) to join in. These students were financially limited. They had no budget to buy the musical instruments or even to pay for the tuition fees. She applied to an education fund available from the government to help settle these costs. Her colleagues stated that she was an excellent teacher who motivated her students and built their confidence. At the school's final semester break, she organised a mini concert to let these students perform by inviting teachers, parents and students to appreciate the students' achievement.

She said that support from her colleagues together with her reflective thinking practice helped her to be resilient.

3. Wing

Wing was a freshly graduated visual art teacher. To him, student misbehaviour and workshop (Visual Arts workshop) management were challenging. At the beginning he found teaching in the SDS really hard. He was a positive thinker, stating that *I treat challenges as trainings*. His character of flexibility, creativity, and good communication skills allowed him to adapt to the school circumstances quite well. He described himself as a troublesome kid when he was at high school, so, by the same token, he could understand the students thoroughly.

To be resilient, as he stated, *Factors like persistence, reflective thinking and positive thinking, together with collegiality [mentor and young colleagues' support] helped me to adapt well here.*

He was assertive and had a wide vision. He considered the students' future development to be of paramount importance. He asserted that, *The Applied Learning (ApL) subjects related to Visual Art and Design and Technology should have better recognition* [be counted with better recognition towards the public examination, e.g., the Hong Kong Certificate of Education Examination (HKCEE)]. He was proactive in having raised difficult questions about the Visual Arts curriculum in an EDB open forum. Students and teachers were impressed by his vision, his innovative action and his directness. He convinced the school authorities to support students to take the ApL subject with financial support.

Wing stated that personality with humour helped to keep him well-balanced. As described by his mentor, *Wing is good at what he does and works well with the students. He always has a positive attitude.*

4. Duck

Duck was an experienced English language teacher. Before joining his school, he had 24 years of teaching experience at two different schools: a band one school for 15 years and a band five school for nine years. With the closure of the band five school two years ago, he had started his hard job-hunting journey. In the job-hunting process, he was depressed. He said that it was the most difficult time in his career, which led him to burn out.

For the first few weeks at this new school, Duck was frightened by the students' rude behaviour, aggression, and fighting. He explained that, *The school lacked any system of support! How could we handle these...?* He continued, *Miracle. It was a miracle. After two months, I was managing myself so well! I changed to perceive those problem students from other, different angles. I saw that they were inherently weak and were in desperate need of support, they were labelled as BAD! But actually they were not too bad, I thought I could help them.*

I have a clear goal to teach and help students to change, I am able to change perceptions, adjust well, with care and love. And with this positive goal, I have become strong, emotionally strong. I recovered from depression and became resilient.

I treated my bad experiences in my career path as lessons in the 'school of life'. At least I am not feeling victimised. He adjusted his thinking and perceptions and thus felt gratified.

He worked well in academic work, at that time he had been already holding two masters degrees and was planning to obtain a higher degree. He said that, *Continuous professional development (CPD) keeps me alive.*

5. Clayton

Clayton taught Physical Education (PE) at his school for boys. In his first week, when he was teaching in the school playground, two boys climbed over the fence and ran away. He described the incident a crisis. He was then scared to have a PE class in any open area, and he became hesitant to develop relationships with students. With support from his mentors – the discipline master and the school principal – he found a way out. He built rapport with the students through understanding and acceptance. He allowed students to have choices at which, if they behaved well in the PE lesson, they could then choose to play their most favoured sports game, for example soccer, in the final session of the lesson. He introduced 'rock-climbing' in the PE curriculum and this new challenging game attracted students' interest.

He had a hobby of enjoying and repairing cars, which unexpectedly became a common language between him and the most troublesome students.

As he stated, Creativity, flexibility, positive thinking, and colleagues' support helped me to grow, while hobbies and interest in cars helped me to relax and build friendships.

I have a sense of humour, and the school is a good place for a novice teacher like me to learn. It is like the Shaolin Ji [Kung Fu temple] wooden monks alley! He preferred to work at the SDS rather than a mainstream school as working here is more meaningful in helping non-engaged youth and was more rewarding for him.

6. Ah Man

Ah Man was an experienced teacher. He taught business subjects at band five schools for 13 years, and joined this SDS for one year. He felt that the SDS type of school was good for the EBC students: *The curriculum provides students with more genuine career experience in the community.*

As he described it, *Teaching here is a mission arranged by God.* He understood and accepted students with their limitations and difficulties. *They have emotional and behavioural problems; it is not their fault. Once you realise their backgrounds, you will become sympathetic. We should help them [the girls] to start a new life.*

The school is not big, it's just like a family, closer [relationships]. About the resilience factors that he might have, he stated, *Faith, with positive thinking and views, a supportive school climate, flexibility, learning from failure, teamwork.... You walk around the school campus and you can feel the positive climate and the big acceptance here.* He continued, *When I was down or despairing, I would go to the fountain [the statue of Saint Mother Maria] and pray. And I told my students to go there too if they got emotional problems. We can look back, but without regret.*

Ah Man was good at motivating and encouraging the students. He brought the Junior Achievement (JA) project – a virtual business project sponsored by the Hong Kong Bank – to the school and encouraged students to participate.

The school principal commented, *Regardless of what issues come up, Ah Man can find creative ways to handle the situation. His teaching is innovative, his classroom management is productive and supportive, and the girls really like him. Our school values having him.*

7. Peter

Peter came from a science background. Fourteen years previously, he had joined the SDS as a casual badminton coach for the summer vacation activity. In September of that year, he was invited by the school principal to stay as a science teacher (without teacher training). *It was a very challenging offer,* he said. Nonetheless, he had strong

faith and belief in himself, and was dedicated to serve. *God supported me to stay and to serve.*

Reflection, acceptance, equality, with a clear life goal were the factors suggested by Peter to explain his resilience. He admitted that, *Nobody is perfect. But faith, beliefs, good relationships, support, and reflection can help. And, Just like mirroring, when I look at my students' misbehaviour, I see their limitations, and I ask myself if I were them what would I need to do and how would I need to do it. It is reflective thinking, positive reflective thinking.*

He suggested that the school could use *pre-service attachment, mentorship, and common faith* to help new teachers to adapt and develop.

He was completing his masters degree in education at the time of the interview. His masters thesis was about *social skills training of the EBC student*. His dictum in education was to *use supportive relationships to motivate students to learn*. He said, *I really want to help them to transform. And The students have choices, and they should learn to bear responsibility for their choices. It is Choice Theory.*

As the school principal said, *Peter has a sense of humour about the stressful things that happen at school, but he also knows when he needs to be serious*. His principal also stated that he had demonstrated a great ability to work with at-risk students in a positive and encouraging way: *He sets high expectations for his class and shows students, using himself as an example, how to succeed at school and in life.*

8. Kelvin

Kelvin previously taught in a mainstream school for five years as a mathematics teacher with senior classes. After five years working under pressure, he was burned out and then he resigned. He recalled the experience: *At that school, the principal and the senior staff only knew how to put pressure on us [teachers] to improve students' public exams results. They said it is the golden principle for our appraisal and performance assessment. And I was too stressed, lacking energy whenever and wherever I entered the school campus. When I was called up on the intercom – called by the person I realised was the panel head – my heart beat becomes very fast. I was panicking!*

He then joined the SDS five years before the research study: *I was so lucky to be here after I decided to run away from that devilish school*. He said it was the trustworthiness and supportive school culture of his current school that helped him to bounce back. *We have a work-life balance here; the principal instructed a workman to*

close the school gate at 5pm; none of us [students and staff] can stay after 5pm in school. He further explained the value of this arrangement, Colleagues suggested that when we walk out from the school gate, all issues are left behind in the school. We become detached and renewed. Kelvin described how he could thus see each day as a new day.

Although in the first two months in this new environment he found it *hard to manage the class, and the students had zero motivation to learn*, his faith helped him to adapt. He recognised that acceptance, mutual respect, and understanding were the keys to building relationships. He tried to reach out to others with empathy and to see things through the perspectives of the students. He therein won the students' respect. He acknowledged that he enjoyed teaching in his current school: *The students in the senior forms respect us. Our teaching efforts are appreciated.*

He earned a Bachelor of Engineering and planned to take a masters degree in counselling. He always had a positive outlook, even when situations were difficult. He said that, *With faith, I am willing to change and adapt whenever the need arises.*

9. Alvin

Alvin was an experienced English language teacher. He taught in a band five school for ten years until one day he reviewed his career and life and decided to leave teaching. He then ran his own business to earn *big money* for another ten years. Two years before the research project, he went back to teaching, as *summoned by my inner heart*. He wanted to serve and to find the real value of life.

He suggested that, *The education scene has changed; students' misbehaviour has become more violent. All are out of control!* When asked why he stayed, he replied that, *At this stage, I feel teaching the EBC students is my calling. God told me to go back and to serve.*

As his principal stated, *Alvin is sure of himself and he knows exactly to where he wants to take his students; and he is flexible enough to stop if necessary. He is a positive role model not only for his students, but also for us. He loves what he does and you can see that in his class.*

Alvin also shared his view that, *Every job has its difficulties. Students here have low EQ [emotional control]. However, they all have their own story. I have the passion to teach them here to be resilient. And I am very strict and harsh in my English*

language class. They are allowed to talk only in English. You know, to be capable, their English [language] must be good. And I am not only teaching English [language], I also teach them to learn from their past bad experiences, then to act positively and learn how to stop [to hold their temper].

Alvin enrolled in a masters degree to study student counselling at the Chinese University of Hong Kong. He was anxious to undertake the degree for his professional development.

10. Monica

Monica was an experienced English language teacher. She had taught in mainstream and the Non-Chinese Speaking (NCS) classes for 12 years, then joined the SDS three years before the research project.

In the first few months at her SDS, Monica thought of leaving. She stated that, I felt afraid for my safety in the first few months here. ...Kids spoke and yelled in bad language in class, they were ready to fight at any time.

She was a creative, committed, flexible teacher and also a good team player. She could understand student's needs well and build good relationships with students, parents, and colleagues. She was assertive and had expressed her opinions to her seniors about student discipline, suggesting a revision of the English teaching curriculum to assist students to migrate back to mainstream school with confidence.

She had a Bachelor of English Literature degree and was completing a masters degree in counselling in the coming year. She was the only English language teacher with degree qualifications in English Language teaching in the school. She said, *I am teaching primary six English. I have the responsibility to enhance students' learning for their migration back to mainstream secondary schools.* She introduced creative poem writing to motivate students to learn English and to enjoy the process and the successful results of it. *My boys [students] were so creative. I was impressed. And The Art teacher helped me to insert pictures into the poems. If you walked around, you could see the poems displayed with meaningful pictures, around the stairs and corridors.*

Monica stated, but not in a sense of complaint, that she had to spend four hours to travel to school and back home. However, she could make good use of the time to rest and change her emotional state to: *shake off the school things and go back home to be a*

great mum of two kids.

11. Cathy

Cathy was an experienced and committed teacher, a senior staff member, a team leader, and a mentor. She had served in the same school for her whole career (27 years). She saw the 27 years as having been *fruitful and without regret*. Recalling her memory of the first year in the school, she described the image of the school as *remote, limited resources, dirty and poor*. She admitted that *to control students' aggressive emotions and misbehaviour* had been the biggest challenge to her at that early stage.

She was dedicated and committed in youth education, as she said that she joined the school with faith and a mission: *A mission from God*. She was always a thoughtful, passionate and energetic teacher, even at that time (she retired the following year).

She was also a nurturer and a decisive and helpful mentor. She had the courage to take risks to protect the prestige and integrity of the teaching profession. She gave speeches and talks to schools and parents, and she wrote newspaper journals to tell the public about the value of EBC and special education. *I am vocal, but sensible*, she said.

She had a strong sense of humour. In the interview, she used creative phrases to describe her views (she spoke in Chinese, making translation difficult, especially for those phrases with Cantonese idiom and rhythm). For example, when I asked her the traits of resilience, she said, *Keeping fit* [being resilient] *is easy* [be flexible and take everything easily]. *One way is to laugh and gain weight* [be fulfilled]; *another way is to cry, cry all the water* [stress/tears] *out to lose weight* [release stress].

After a while in the interview, she elaborated her views more seriously, *Leadership is the main key. A good leader is a good gatekeeper, with a team of good gardeners* [teachers] *and workmen* [staff], *good climate* [supportive school climate and resources], *a good soil and good care* [love and care], *plants* [students] *can grow. ... Harvest, Harvest!*

She had ideas and comments about teacher education. *Do you know what to ASK? how to ASK? and when to ASK? A is for attitude, S is for skills and K is for knowledge...*

As described by her colleagues and mentees, *She is a trustworthy good mentor, she is our big sister.*

Identifying Dimensions of Teacher Resilience

In the interviews, I asked respondents to describe (1) challenges they encountered during their years of teaching the EBC students, (2) the individual and organisational factors they saw as contributing to their resilience, and (3) specific strategies that they used to cope with these challenges as part of their resilience-in-action.

Themes derived from the data were recognised as being of three general types: (1) those that were articulated by the respondents straightforwardly as individual or contextual (organisational) factors in the sense that they were individual or organisational characteristics that contributed their resilience, (2) those that were articulated by the respondents only as strategies that they used to enhance their resilience, and (3) those that were articulated variously by the respondents as factors that enhanced their resilience but which were also used by them as strategies to enhance their resilience. Separating these different articulations did not emerge as offering anything of great importance, so they are presented here together, although the presentation and illustration made it clear in each case the type of theme involved. These factors and strategies, then, may collectively be termed ‘dimensions’ of resilience.

These dimensions were hereunder presented in the following two sections: ‘individual dimensions of teacher resilience’ and ‘organisational dimensions of teacher resilience’. Within each section, each of the identified themes was first explained, then grounded in selected respondents’ narrative from the interviews. The findings from these two sections are then drawn together at the end of the chapter as a summary and overview of those identified resilience dimensions from individual and organisational perspectives.

Individual Dimensions of Teacher Resilience

The identified individual dimensions of teacher resilience were categorised and refined into the following themes: (1) having a positive attitude, (2) being a committed teacher, (3) being a lifelong learner, (4) being a reflective teacher, (5) having a sense of purpose, (6) having faith and spiritual support, (7) being positively detached, (8) maintaining a work-life balance, (9) having a sense of success, (10) being flexible, (11) using a problem-solving approach, (12) having a sense of humour, and (13) being creative. These dimensions are presented here in the order of their relative importance

as revealed by higher frequency of occurrence and re-occurrence in respondents' interview narratives. The narrative extracts presented here have been translated from Cantonese to English to retain the *meaning* of their utterance, rather than to preserve their linguistic structure.

Having a Positive Attitude

In the interviews, all 11 respondents identified having a positive attitude as being most important to their resilience. It involved being able to remain optimistic and converting a situation that was emotionally toxic into something emotionally nutritious: *It was the attitude of seeing the 'glass half-full' instead of 'half-empty'.* (Peter)

With a positive attitude, Alvin and Duck recognised that no one knew them better than they did themselves, and that they therefore did not exist merely in the opinions of others. They adopted a positive attitude, recognising that changes were needed and believing that changes were possible:

[I] accept that change is a part of life. Accepting circumstances that cannot be changed can help me focus on circumstances that I can improve. Two years ago, when I was in a job-hunting crisis, I reminded myself to be positive. (Duck)

You can't change the fact, but you can change your interpretations and responses to the event. Trying to look beyond the present to the future circumstances could be a little better. Hope is coming by tomorrow. (Alvin)

Ah Lee indicated that he put aside past negative experiences, let go self-criticism and moved forward when a challenge arose. He stayed in the present moment, thinking and affirming powerful and positive thoughts regularly:

I nurture a positive view of myself; developing confidence to solve problems and trusting my instincts to respond and to help me build resilience. (Ah Lee)

Staying positive enabled me to handle difficult situations. That gave me the courage to leave the dirty pond and move to here. I have no regrets, actually I found forgiveness to be an important asset of mine. ...I believe that dealing with the difficulties positively enables me to bounce back. (Ah Lee)

Four respondents indicated that they had positive visions for their lives and that they lived proactively. They accepted challenges gracefully and took control of their emotions and emotional responses to certain situations. They had confidence in their own decisions:

To some people I might be a bit silly. I always see things in a positive way. I think I have a special ability to find positivity, especially in situations that are not positive. I am always optimistic. (Duck)

Being resilient? A lot of it is about attitude. Keeping it positive. (Monica)

Resilience, I think, means to have a positive attitude towards any situation that I may face: being able to handle the situation and accept the result, also to learn from that result, failure or success and accepting that I still have something to learn. (Clayton)

It probably has to do with remaining positive. Positive about teaching and learning, positive to colleagues and students, positive and real to myself... Resilience has to do with sticking around wholeheartedly and being a positive force to influence others. (Cathy)

Wing and Cathy talked of practicing verbal harmlessness, identifying and eliminating negative speech habits, and reconstructing negative statements into positive ones:

In the classroom, I make sure that I always have a positive influence on my students. I use positive wordings, no critical comments, and I support the students in whatever they perform. ... Praising and encouraging them to have the confidence and the motivation to learn. (Wing)

To have a positive outlook. I treat every day is a gift, I am grateful that I can wake up in a healthy state and go to school. I don't really let anything get me down. Things change so much around here, as a teacher, I have to be positive. (Cathy)

Ah Man, Peter, and Kelvin saw themselves as resilient teachers practicing positive thinking, through which they derived a positive sense of well-being, optimism, belongingness, meaning, and purpose from being part of and contributing back to something larger and more permanent than themselves. They saw positive thinking as a process of choosing positive emotions from stimuli in the environment and applying them to their perceptions and beliefs. These teachers indicated that they thought positively to create an outlook that translated into a new or better chosen reality:

Staying positive helps to keep your focus on your goal. I see myself as a positive person because I am always positive about everything. To cry is a day, to laugh

is also a day, why not choose to laugh? I come here to serve [others] and to fulfil [my own goal], so I tell myself to start every day positively with a good mood.
(Ah Man)

I am a practical person, so my objective is to see things in a useful way. No matter whether the situation is good or bad, I can see the beneficial points and make use of them, and will not let them overwhelm me. I tend to be the person who, when in a negative situation, is still able to find something good about it. I am a positive thinker. (Peter)

Connecting to life, will change your perspective on discomfort and open new possibilities for moving from just 'being' and 'struggling' back towards 'adventurous living'. (Kelvin)

Being a Committed Teacher

All 11 resilient teachers interviewed also saw themselves sort of being committed to their work as teachers, motivated by love, and as having a commitment to education. They said that one of the reasons they had chosen to teach in such disadvantaged schools was because of their 'inner callings'. The challenging and rewarding nature of teaching the EBC students was what had persuaded them to stay on in these SDSs. The chance of being able to make a difference in student's lives was an important factor in encouraging them to persist. They seemed to have a realistic understanding of what to do and how much they could do. They had a sense of hope for their students. When asked to reflect on what motivated them to teach in the SDS, they were able to pinpoint certain life events or experiences that brought them to that work.

Five respondents who grew up from backgrounds similar to the EBC students or had been inspired by their teachers and past experiences in school, spoke of having a sense of responsibility to help their EBC students to find a way out of their situation:

The school where I had my teaching practice was so beautiful and so nice. But I know I have to see the real world. I am not just here for a job, for money, I am actually working to contribute; not only to change, but to build those EBC students' values and skills and knowledge. As a dedicated teacher, I need to have a good heart to make a difference. Just as my teachers cared for me. (Wing)

Duck echoed Wing's view:

I chose to come to [teach in] this school and I'm really proud that I have had the strength to keep going. I will not give up on the students of whom others are saying "they are just rubbish, do not waste energy on them". I really love my job and want to make a difference. (Duck)

Clayton made the decision to work in the SDSs after his final teaching practice in another disadvantaged SDS:

After I had finished my practicum at that SDS, I told myself that I wanted to join this [special education] field. I thought I could develop skills here that I wouldn't have had the opportunity to develop elsewhere; and I also felt that I could give back something to the EBC students here as well. I could be a capable, committed teacher in this school. (Clayton)

Ah Man explained how teaching in SDSs had become the purpose of his life:

I like interacting with my students while I have a feeling of seeing myself in them. I think these kids need someone who can help them and who knows what is going on; they need a teacher like me. ...I respect them for what they are doing. With [my] understanding and acceptance, with [my] guidance and support, they can get back on the right track. (Ah Man)

Alice explained how her former music teacher inspired her to make a difference in education:

My secondary school music teacher was an inspiration to me. I never forgot her. Without her support, nurturing, and motivation, I wouldn't have become a committed teacher today. I really thought I could make a difference in education. That is what I wanted to do. I wanted to make students realise the importance of music in their lives. I wanted them to know about expressing themselves and showing their talent to the public. (Alice)

Cathy recalled that 27 years ago she had confirmed with God that it was her job to help those who did not have support at home because they were boarding in school and to make a difference:

I knew I had a mission here. I developed my purpose, so that is going to be my goal until I get to be the best. ...I have just seen a lot of students who don't have support at home or school either. I just really want to help them. I had wanted to

be a teacher since I was studying in Form Five. I really like working with these needy children and feel I can make a difference. I'm really passionate about it.
(Cathy)

Six of the respondents shared how their commitment to students' learning, growth and changes was a strong internal drive that engaged them meaningfully in the SDSs. For them, those snapshot memories of student success, no matter how big or small, gave them 'fulfilment' and fuelled them with the emotional strength to teach:

Looking back at the 27-year teaching journey, I must say that I have always been contented. When I see my students change [in attitude] and improve [in behaviour], to become responsible persons, get a job, acquire a goal in life, rebound from their desperate past. ... I am so grateful. Their achievement has confirmed to me that my choice to do this meaningful job was correct. (Cathy)

Being a Lifelong Learner

Eight respondents identified having a mindset of lifelong learning as one of the dimensions of their resilience. They indicated that they had the initiative to further their study and the willingness to enhance their teaching effectiveness through attending continual professional development (CPD) programs.

Cathy and Ah Lee, who were two veteran teachers both holding two masters degrees, had been engaged as part-time lecturers in in-service teacher training programs. What was exemplified in their professional commitment was their strong desire for continuing professional development, to be a lecturer to teach and to share in building education.

When reviewing her 27 years of teaching EBC students, Cathy felt that the most rewarding periods of her career were those years when she was deeply involved in training, research, and development; striving to make a difference to the education scene and enhancing students' learning in SDS:

Those were very difficult years because I had to constantly struggle between work and family commitments. All my evenings and weekends were spent on research into counselling and effective teaching and learning. It was worthwhile, especially when I look back at it now. I realise that CPD helped me to become mature quickly as a professional educator. (Cathy)

In the interviews, all of the eleven respondents expressed their willingness to take short-term in-service training programs about special education and inclusive education for their continual professional development. They treated these training programs as *nutrition that could enhance our teaching effectiveness, and opportunities to meet teachers from other schools to share, to listen, and to tell.* (Monica)

Six respondents (Kelvin, Peter, Monica, Duck, Ah Man and Alice) had been taking or planning to pursue a higher degree, such as a masters degree in Counselling or in Special Educational Needs, for their professional development. These teachers had a positive lifelong learning mindset (not for salary increments or promotion) to continually push themselves to learn.

Being a Reflective Teacher

Being a reflective teacher was identified by seven respondents as a dimension of their resilience. It involved being able to learn from experience through self-reflection on their teaching practice. They saw their reflection as being not just about how they thought, but also about how they constructed their experience, looking at it from different perspectives, making independent judgments, and taking responsibility for their actions:

I learn from experience and know how to help prevent the same mistake from re-occurring. I think it is important that I am reflective. 'No regret, only reflect'. The big thing in being resilient is looking back and learning how to examine your mistakes. (Alvin)

Resilience is a process involving positive reflection after facing challenges. Each time you go through something bitter, you get a little bit smarter about it. (Cathy)

What was the lesson here? What clues did I ignore? The next time that happens I will... (Cathy)

Clayton was another example of practicing reflective thinking to continually improve his teaching effectiveness:

I do a lot of reflecting by self-questioning: Why couldn't the students understand the content? Was my teaching really so bad? What could I do to improve? I chat with students to understand their feelings and difficulties in learning, and their expectations too. I never think about any negative points. I only think of 'what I can', 'how I can', 'what they can' and 'how they can'. (Clayton)

Kelvin described how he observed a disadvantaged student's odd behaviour, then how he thought reflectively with a positive intention to help him:

A student resisted doing class work in my lesson. He tore the worksheet into pieces and ate it! ... After the lesson, I thought about the event thoroughly. I was not angry, I started to think about his needs and difficulties. I recognised that 'acceptance and understanding' could be the key. I approached the student by buying him a cup-noodle in the canteen, and then we started to chat. We had made a good start. ... A positive relationship was built by understanding and caring. This student's performance improved quickly and he started to concentrate on his learning in class. I felt grateful, I have saved a boy! Life affecting life. (Kelvin)

Monica saw self-reflection as an essential skill for her professional development. She had made many improvements in the English curriculum and teaching for her school. She still kept on thinking new, innovative, interesting and applicable activities to enhance her students' learning:

I suppose it is because I am constantly thinking about students' benefits. I always think, even now the school is operating smoothly, but there is still something that could be improved, like the campus buildings... (Monica)

Duck described how he developed his habit of practicing reflective thinking:

I think, to be resilient, we need to look back and learn to examine our mistakes. The important thing that goes along with reflection is that we have to do it honestly. Be honest to ourselves, recognise our own feelings and thoughts; honest to our body and mind... (Duck)

Wing, a novice teacher, also recognised reflection as a critical practice to enhance his teaching effectiveness:

I do reflection every day after school by writing down four points about my feelings and thoughts of the day: two bad things and two good things. This simple exercise allows me to rethink through all those feelings, actions and decisions that I make on a daily basis. The process of writing is like a cleaning process, I feel spiritually cleaned. (Wing)

Having a Sense of Purpose

Having a sense of purpose was identified by six of the interviewees. They saw it as their having goals in life, having a sense of direction, and holding beliefs that gave life purpose, aims, and objectives. Teachers who understood their job's wider purpose – such as the vision and mission of education – saw themselves as being happier and more engaged. When they saw how their roles fitted with the school's goals, they recognised their teaching effectiveness as being enhanced:

[In the SDS,] work has meaning in some way. No matter what you do, you and your job is existing for some reason. When you know that reason ... or when you understand how your efforts make the world better, you have found your purpose. (Cathy)

I constantly struggled to balance the goals of mainstream education with the goals I perceived in special education for the EBC students. In the SDS, our goals were simply to raise healthy, happy kids who grew to become contributing members of families and society. Simple, direct and meaningful. (Cathy)

Ah Lee admitted that some of the EBC teachers were looking for a certain level of fulfilment:

For wellness of students and, in particular, their positive future, the concept of making a meaningful difference was one that resonated strongly with me for my staying in the field. (Ah Lee)

Four other respondents referred teaching in SDSs and helping the EBC students to change for the good as their purpose of life, giving meaning to their lives, despite the challenges they faced. This sense of purpose seemed to be the force behind their perseverance. Clayton, for example, affirmed his goal in life, in relation to his career goal:

I was not able to present comfortably in front of people. Thus, in the first month of teaching, I got nervous about teaching in the classroom. But I understood my students, I knew their needs and understood what made them misbehave. They needed recognition and support, just like me. ...By finding a common interest about cars with them, our relationships improved. Now, I will say I love teaching here, teaching the EBC students is my bowl of rice [his career]. (Clayton)

Monica and Peter spoke of their goals and intrinsic values of interest and enjoyment in teaching:

I'm interested in language teaching. However, in mainstream schools it was hard to have enjoyment in teaching. When I joined the SDS, I found I was really engaging in and enjoying teaching. The EBC students were so genuine and so clever. They were very creative and willing to try. I recognised their needs: they needed understanding, appreciation and encouragement. We were mutually respecting each other. Teaching here is meaningful to me. (Monica)

I'm interested in Science. I want to show my students that science can be fun, and that we can apply it to daily life. When the students made the water rocket, I taught them theories about water pressure, elevation angles, materials' density. ... Chemistry, Biology and Physics are all around us. Especially since our school is located in a remote area in the countryside, I can encourage students to think about the relationships of human activities and their environment. (Peter)

Alvin remarked that it was important to understand what his purpose in life demanded:

I made the decision to become an EBC teacher at around 40. Before that I had been in the sales business for almost ten years and had earned big money. During my first ten years as a teacher I worked without heart. Now my values have changed. I have my own kids. I think I must do something for the next generation, but not for money. I am looking at what I would enjoy if I quit my business. I value education. The reason I teach here is that I feel like I am here for the students who are struggling to survive. I am here to teach these underprivileged youths. (Alvin)

Having Faith and Spiritual Support

Spirituality, whether it was a belief in a higher power (God) or a more general sense of spirituality, was identified by five respondents as having given them the courage to carry on through difficult situations and a sense of meaning and purpose:

I grew up in a Catholic family and I think that God gives me the ability to be resilient. I know that the burdens are not all on my shoulders, that there is something bigger than me that's helping me to get through it. I just follow his footprints! (Cathy)

Whenever I feel a lack of energy and low motivation to carry on, I pray. My school is a Christian school, we have a small church inside our school campus. I always pray there. I sing in the church choir every weekend and it is a great boost. I thank God for sending me to here [the SDS] to serve, to help, and to change. I will follow God's footprints to carry on. I am contented. (Peter)

They had clear goals in EBC education, and their religious activities gave them support and a sense of meaning in life:

My Christian faith is probably the biggest factor in my becoming a teacher. My faith led me to start questioning my purpose in life. As I began to seek out my purpose, it was God who directed me here to help the EBC students. The students in the SDS were losers and they needed my hand to achieve and to become successful. (Ah Man)

I have support from my church. I am a Christian. Going to church is enjoyable and supportive. I have always spent a lot of time in church during the weekend. I have always had faith that I am going to be taken care of and I always look for opportunities to serve and to help. I will never give up my mission to be the effective EBC teacher that God leads me to be. (Alvin)

I am practicing Buddhism. I spend time reading Buddha's literature and attending seminars and retreats. I have completed a course in studying Buddhist philosophy. The Buddhist centre provided a supporting network of family and friends. To teach the EBC students helps me to find true value of life. ... I believe humans are born equal. My students got lost and they needed help to transform. My mission is to create value [in life]. I enjoy teaching here as I can fulfil my mission. (Kelvin)

Being Positively Detached

Five respondents spoke of positive detachment as a resilience strategy: to externalise the events, to be depersonalised, and to be detached. When a difficult event occurred, they would assess what was happening and make judgements from different viewpoints. They would not strictly see the event as purely their own fault or feel guilty about it, or take it too personally.

Cathy, for example, with over 20 years of counselling experience, saw externalising and depersonalising strategies as helping her to tackle unpleasant events

through seeking to understand the students' motivation and situation when anything untoward happened. In an incident where she was hit heavily on the head by a football during patrol duty, she believed that the shooter was not intentionally aiming at her:

When the ball hit me on my head, I almost lost consciousness. I was not angry, I thought the student was not intending to hurt me, and that it could have happened to anyone in that situation. (Cathy)

She had, for some years, been a part-time lecturer in a tertiary education institution providing counselling training for in-service teachers. She shared her externalising and depersonalising techniques:

Learning students' family backgrounds and upbringing is important. With better understanding, we can find acceptable and understandable reasons for their misbehaviour. Of course there must be something that's going on, but don't take it personally when the student blows out at you. The key message is 'Don't take it personally'. (Cathy)

Alice remarked that she had been taught strategies to externalise and depersonalise stressful events in the SDS induction program:

My mentor taught me how to depersonalise without being aloof and inhumane. I care, but I do not take it personally. I can distance myself from the problem and step back and tell myself 'that's his choice, it has nothing to do with me'. I need not take things personally. (Alice)

Peter was also good at detaching himself emotionally, perceiving situations objectively as a third person:

Sometimes we need to be aloof, but this is not merciless. While we are too involved, we cannot see the picture holistically. In addition, if we become emotional, we will lose direction. So being callous is one of our protective strategies. (Peter)

Kelvin described how he almost experienced emotional burnout and how he had it tackled by putting things aside:

After a day's teaching, I felt exhausted, physically, mentally, and sometimes emotionally. During an hour-long journey travelling to home in the bus, I put off everything and looked forward to hugging my new born baby girl in my arms, I was fortunate that I could put all things aside. (Kelvin)

Duck also explained how he became resilient and how he was able to avoid burnout through detachment:

I know how to be aloof. I am not cold blooded. I care my students, but I need to care for myself first. ... I know how to distance myself from the problem, and then I don't feel as drained. (Duck)

It was important for teachers to have an appropriate boundary when building relationships with students. As the set boundary helped them to find a balance between a sense of proficiency and a proper level of involvement. On this point, Cathy echoed Duck's explanation:

I won't take things personally. ... I know how to let things go. Troubles come; I will either deal with them or if I can't I will just let them go. Occasionally I will pass the troubles to GOD! He led me to this career; he will show me the way out, I trust. (Cathy)

Maintaining a Work-life Balance

Five respondents identified strategies contributing to wellness, especially those associated with maintaining a work-life balance, as an important dimension of their resilience.

Duck, for example, described how the teaching workload in his SDS as overwhelming, but how he was able to maintain a work-life balance after a day of heavy work:

At the end of the day, I found it impossible to sit down and prepare the lesson for the next day. Teaching here was physically and emotionally draining. I had a student who got arrested for drug possession. ... I really had to work hard to separate this [work-] life from my own life. (Duck)

[I] take care of myself, pay attention to my own feeling and, engage in sports activities. ... That helps to keep my mind and body well-informed to deal with situations requiring a state of resilience. Meditation helps me to build connections and restore hope too. (Duck)

Maintaining a work-life balance included strategies to take care of both one's physical and one's emotional wellbeing. Kelvin did so by setting a strict boundary between work and home:

I got all my work done at school. After passing the school gate, I left all work stuff behind and went home. At weekends, I went out with my friends and would not worry that I didn't get work done. I didn't talk about work with my friends or my family. I only talked about work with my colleagues at school. (Kelvin)

Alice also developed ways to care for her personal, physical, and emotional wellness outside the school context:

I attend beauty therapy every Friday evening. I do Yoga also. I need to preserve my beautiful face and figure. At weekends, I go hiking, travelling and shopping. I visit special places like the old Sai Kung Market to hunt for antiques. I take time to do something special, odd, and fun. I join colleagues at pub for drinks too. All these re-energise my teaching from the first day of the week. (Alice)

Clayton also enjoyed his hobby of cars:

I hang out with friends in all events related to wheels for 'ZEST'. ... I do the repairing and assembly. I read books that have nothing to do with education, and I enjoy playing Mah-jong! (Clayton)

Cathy described how she must have good health to accomplish her mission as a teacher:

To help the students, to save the generation is my life goal. I'm taking care of myself physically by eating good food and mentally by wearing trendy fashions, so that my life will be long enough to complete my mission! (Cathy)

These EBC teachers demonstrated that they made time to socialise with friends and enjoy hobbies. Some, like Duck, would take their relaxation at the gym. Others, like Wing and Peter played soccer. Others, like Cathy, Ah Man, and Alvin, found spiritual relaxation by going to church. These resilient teachers made conscious efforts to find spaces for keeping their physical and mental health balanced and sound.

Having a Sense of Success

Three respondents indicated that a sense of success was a dimension of their resilience and that they experienced a greater sense of success teaching in the SDSs than they had in mainstream schools:

I've been feeling interested in my job and I've been feeling effective in my teaching. On the one hand, my interest in teaching makes me teach students more

seriously and try new and better ways to teach. I applied the Junior Achievement Project in teaching Business Studies, the act of developing this authentic approach in teaching deepened my interest in teaching, and it also aroused students' interest in learning Business Studies in such authentic, contextualised, and vivid ways. (Ah Man)

Job fulfilment was seen by Alvin as a satisfying state of mind that he attributed to the reward he derived from students' success, and the ways in which his capacities had developed to enable him to bring about such success:

I stayed in teaching because, after all, there were more rewarding and happy moments in my career than those unhappy ones. I love being a teacher and I like the simple and innocent relationships that I have with my students. It is always rewarding to see them moving back into mainstream to continue study, to have a goal in life, and to recognise their own value – giving me the feeling that I am a useful person. (Alvin)

A supportive school climate that fostered positive and intimate relationships among teachers and students let Cathy experience success:

We have built a School of Success; the whole school has worked together to achieve this. ...What touches my heart most is when the old boys come back to visit me after they have left school to work or further their study in university. ... The success of my students confirms in me that teaching is a truly exceptional and meaningful profession; and I have a successful career too! (Cathy)

Being Flexible

Flexibility was described by three respondents as a strategy they employed to adapt to situational demands and to balance life demands in response to stressors or unexpected events. It allowed them to change their stance, outlook, or commitment, in the face of the stressful circumstances:

I think, as a teacher, it probably has to be with an open mind, being flexible and open to new ideas... and continuing to be innovative. (Alice)

I know how to balance and be flexible. I will step forward to deal with a problem proactively, and then step back to rest and re-energise myself relaxingly. (Cathy)

I think one of my resilient factors is flexibility. For instance, when I am in a tough situation, I will come up with many different solutions to cope with them and

adjust my solutions whenever the situation changes. Flexibility allows me to see things differently and to be open to more solutions. (Ah Lee)

Using a Problem-solving Approach

The capacity for effective problem solving, as an important dimension of resilience, was specifically put forward by three respondents. They shared that they were able to tackle problems by finding different alternative and possible solutions. Clayton, for example, related how he explored a variety of alternative actions in his PE teaching to manage the class safely in the playground:

That moment when two boys ran away, I did not know how to respond. But I then come up thinking about introducing wall [rock] climbing as one of the topics to teach in the coming PE lessons. I am flexible in creating a new idea! (Clayton)

I looked through the problems [of student discipline and engagement] and thought through how I would solve them on my own. I prefer not to be always asking the discipline master and the school principal for help. When my method finally worked, the success gave me great confidence in all other areas of my teaching life in school. It especially gave me great release from my feeling of stress. (Clayton)

When Kelvin implemented a new behaviour management plan in his Maths class to improve students' concentration, he changed his approach by identifying alternative solutions after he recognised students' negative responses:

They behaved worse. ... I figured out that respect and caring relationships were what my students needed. I changed the approach by identifying alternative solutions, the class became energetic and ready to learn. (Kelvin)

Monica captured a variety of resources to revamp the English language teaching curriculum to make it a bridging course for the EBC students moving back into mainstream. She designed a new set of vivid and interesting teaching materials to help her students to improve their English language skills. Her methodical approach to problem-solving enabled her to explore and utilise a variety of resources both inside and outside the school context:

I went directly to ask the principal about his expectation; I visited other schools to gain references and advice; I went to Curriculum Development Initiative Office to gather curriculum materials; and then I came back to assess my

students' English language standards. With all this information, I then decided what my English curriculum should look like at that specific grade level. I believe I am able to solve problems if I work diligently, and this helped me to face my everyday challenges positively. (Monica)

Having a Sense of Humour

A sense of humour was identified by two respondents as an important dimension of their resilience. It was seen by them as the capacity to laugh at life's difficulties, releasing their frustrations.

To Clayton, humour generally helped him to release tension and shifted away from embarrassing moments:

That moment when two boys ran away, I was frozen, like a piece of stone and did not know how to respond. ...To be a bodyguard would have been an easier job, Oh my god! ...I have a sense of humour, and the school is a good place for a novice teacher like me to learn. It is like the Shaolin Ji [Kung Fu temple] wooden monks alley! I preferred to work at the SDS rather than a mainstream school as working here was more meaningful in helping non-engaged youth and was more rewarding for me. (Clayton)

Cathy had a strong sense of humour. During the interview, she used creative phrases to describe her views. *Making the lesson interesting and with positive energy could reduce classroom anxiety. Humour could create a more positive learning atmosphere and facilitate the learning process. (Cathy)*

Being Creative

Creativity was mentioned by two interviewees as a dimension of resilience. They perceived creativity to be a factor in helping them to better adapt to an existing situation or to find out alternative solutions to solve problems.

Wing, for example, applied creativity in addressing students' low self-esteem and low motivation in class:

My students had no motivation to learn. Their misbehaviour in class still bothered me. I wished I could change their attitude. One day, I found a song about 'shit', which was composed by a Hong Kong popular kid-song composer. The metaphor was to encourage our youth to find their purpose of life and carry on. Even garbage [shit] has value if we managed to re-develop it. They [the

students] were transformed. ... While I played them the song, it aroused discussion in class. Finally we came to a conclusion: "let's do something together to transform the garbage". That's how the idea and project of a 'Garbage Recycle Fashion Show' came about. (Wing)

Likewise, Ah Man explained that he had to be a creative problem solver to get information across to students who saw no future for themselves. He related his story of how he encouraged and supported the class to join the Junior Achievement (JA) project:

Our girls [students of the SDS] have low self-confidence. But I found that they were creative and sociable, and some of them were good at English. I capitalised on their strengths believing that they could do well in the JA project. Though the project was designed for mainstream students, I fought to give them a chance to participate and learn. I took them to visit business sectors which I knew to observe. Then the class had open discussion on how well the business was run. Any insights and any limitations...? Then they brainstormed to check what they could do authentically in the JA project. (Ah Man)

I could not believe it – there were so many ideas coming out. Eventually the whole class wanted to start their JA project. They grouped together, discussed topics, searched for information, wrote proposals, assessed possibilities, planned the project and sought sources. They were very involved! My approach was not to interrupt and not to push. By giving them examples and choices, giving advice and support, they proved to me that they could do it! (Ah Man)

Organisational Dimensions of Teacher Resilience

The identified dimensions of organisational resilience were categorised and refined into the following themes: (1) having a positive school climate, (2) having positive and supportive relationships, (3) experiencing trust and recognition, (4) being part of a working team, (5) experiencing supportive and caring leadership, (6) experiencing supportive administration, and (7) having a strong mentoring program. These dimensions are also presented here in the order of their relative importance as revealed by higher frequency of occurrence and reoccurrence in the interview narrative. The narrative extracts presented here identify both the general form of comments made and significant variations.

Having a Positive School Climate

Having a positive school climate was identified by all 11 interviewees as a dimension of their resilience.

The quality of teaching was determined not just by the individual quality of the teachers, but also the environment in which they worked. A positive school climate could foster resilience:

Under positive school climates, we were able to build our resilience by sharing the joy of our students' improvement and advancing our professional lives.

(Alice)

Ah Lee, a veteran teacher, described the importance of a positive school climate in the development of his resilience:

When we have a work environment that is inspiring and supportive, it is easier for us to stay connected to the deeper meaning of our work. (Ah Lee)

Kelvin cited a typical example of how a positive school climate helped him to bounce back from stress:

I was grateful for the principal's, the panel head's, and all the colleagues' support to me. I found I could enjoy teaching Maths here. I was supported and being appreciated to review the senior form's curriculum so that students could migrate smoothly back to mainstream schooling to further their study. I was so lucky to work in such a positive school environment that allowed me to practice my skills, my beliefs about pedagogies, and my theories of Maths teaching. Here, I have worked without the pressure of chasing after performance in public examinations. Students have been engaged in learning. (Kelvin)

In the SDSs, teachers and administrators shared common missions and visions for their school and were dedicated to achieving them in a collaborative and collegial atmosphere:

Under a positive school climate, we could feel the support that enabled us to maintain our enthusiasm for teaching even though our job demanded considerable intellectual, physical and emotional energy and commitment.

(Wing)

Having Positive and Supportive Relationships

All 11 interviewees indicated that positive and supportive relationships in school were a dimension of their resilience, providing an encouraging environment for their physical, intellectual, psychological, and social development:

Good relationships in the school are important for my development of resilience. To accept help and support from others strengthened me. (Peter)

Interviewees commonly used terms like *trust, togetherness, support, respect, mutuality, understanding, and caring* to describe their positive and supportive relationships in school. These relationships occurred variously between (a) the teacher and leaders in the school, (b) the teacher and other teachers, (c) the teacher and students, (d) the teacher and parents, and (e) the teacher and the broader community.

Teacher-leader Relationships: Respectful and trusting teacher-leader relationships were identified as attributes to enhancing teachers' growth and resilience. Monica, for example, described the respectful relationships between herself and supervisors in her school:

My school is terrific. We have a sense of togetherness. ... When supervisors want to suggest some new things they will consult you and ask you if you are OK, always in a non-threatening and not boss like manner. (Monica)

Such relationships were enhanced when supervisors recognised the contribution and achievement of teachers:

I was grateful to have the support and recognition from my panel head and school principal on the fashion show project. It was encouraging. (Wing)

Teacher-teacher Relationships: Good relationships among colleagues were seen as crucial, especially for novice teachers. With trusted colleagues available for sharing and debriefing, and with understanding of the same scenario and experience could offer direct, positive, and supportive relationships which helped build resilience.

Alice, a novice teacher, explained how important it was to develop real friendship with other teachers:

She is another IT teacher in my team and she has been teaching here for six years. After school we go out just to talk and shop. She is a support system for me when my boyfriend (an engineer) cannot understand me or my difficulties. I trust

her, she does not look down upon me, although sometimes my thought and ideas are green and naive! (Alice)

Alvin and Wing also explained how supportive relationships in school with teacher colleagues were important to their resilience:

I am the kind of person who gets along well with others and that is probably the key for my adapting well here. I think it is essential that relationships with colleagues and students be developed. I always engage my colleagues in friendly conversations and I think that it is very helpful. We are in a team. Like a soccer team, we can 'fill each other's posts' naturally. (Alvin)

We are supportive, mutually supportive. If I have problem with a student, or if I need a break to calm down from a student, rather than sending the student to the discipline office, I can send him to one of my colleagues. We have mutually agreed that if anyone needs a break or support, we will 'trade off' students. We are collaborative. We are together and we are never alone. (Wing)

Trusting relationships in school could boost morale. In the SDSs, collaborative relationships were not only for problematic cases, they also supported creativity and innovation:

I was pretty independent on the music project, I knew I could turn to colleagues for help and they were really supportive. They gathered an audience (students, colleagues, parents, and friends) to attend our mini concert! We had a successful performance and the students were very happy. The feedback was rounds of applause, which made me realise that education was so important for the EBC students. (Alice)

Teachers of other subject teams were also supportive. When the idea of the garbage fashion show project came up, I had their support to make it happen. They were marvellous. (Wing)

Teacher-student Relationships: Caring, healthy, and supportive relationships built by teachers' personal interactions with students enhanced teachers' growth and development. Kelvin expressed the gratification he gained from developing interpersonal connections with his students:

I'm pretty good at building up relationships with my students. I make an effort to remember their names by nicknaming them in my mind, recognising their unique

appearance, making a pictured sitting-plan and so on. After school, I chat with them to understand their needs. We are in good relationships and we care for and trust each other. (Kelvin)

Having caring and respectful relationships with students made students more willing to change and behave. Ah Lee expressed his belief in *caring for the students and then love could win*:

When they know that I care for and love them, they behave. (Ah Lee)

Clayton shared how he engaged the students in the PE lesson by respecting their needs:

When I had finished teaching the sports skills, I gave them the freedom to choose activities on their own..., they were happy, felt being respected, and became cooperative. (Clayton)

Teacher-parent Relationships: Collaborative and supportive teacher-parent relationships contributed to improve students' wellness. Parent's engagement in school involved shared responsibility, actively encouraging their children's learning and development.

The school in which Cathy worked was located in a remote district away from the city, so most of her students were boarders. She saw building relationships and having good communications with parents were important to enhance students' learning, growth and development:

I have to encourage parents to work with their kids to improve. As I see the kids, some are lonely in weekdays [away from home]; they are very excited to have their parents join them in school whether for learning or just for fun. Our school encourages us to run parenting workshops and activities through the support of the Parent-Teacher Association. We are grateful to have parents' contributions as we always work together for the goodness of our kids. (Cathy)

Duck also suggested that establishing trusting relationships with parents and *having them on your side* could facilitate teaching and pastoral work:

I had a boy involved in bullying cases. I found his character was not bad and he had a self-injurious behaviour tendency. I found the main problem was that he had a bad model at home, his father was a drug addict and gang member. ...When I contacted this father to discuss his son's situation, I was rejected and

scolded with dirty language. And then my principal received a complaint about me from him.... I learned from this setback and I took two steps to rectify it: one, I taught the boy anger management skills, and two, I established a trusting relationship with the father. Once the parent understands that you are caring to their kids, they will trust you and they will choose to talk to you directly. Finally, this approach worked, and they both thanked me for the help. (Duck)

Teacher-community Relationships: Wing and Ah Lee both recognised the importance of building positive relationships with the wider community. They reported working to change the negative perception of the public on EBC students in their school. With the Garbage Fashion Show (Wing's project) in the school's Open Day and the Lion Dance Performance in the Elderly Centre (Ah Lee's interest group activity), they both won appreciation for the school in the community, which they saw as building their resilience:

The activities were good for community relationships building. Our students joined community services activities regularly to help the needy. We were all happy and fulfilled. I could see brightness in their [the students'] eyes! (Ah Lee)

Experiencing Trust and Recognition

Six respondents indicated that trust and recognition amongst students, teachers, parents and administrators was a dimension of their resilience.

Alice suggested that it was important for the school leaders to recognise her work and to give her a free hand to try on new ideas:

I have a good principal. She is very positive and very willing to listen to new ideas and to try new things. She has trust in us, she respects us and never hesitates to praise our hard work. Appreciative words are always heard from her. That is trust and recognition, trusting my ability and recognising my hard work. (Alice)

Cathy, as a senior staff and leader also shared that:

Teachers like to be recognised for a job well done and to know that their efforts are appreciated. As a leader, to show recognition can be just so simple with: small memo notes, greeting cards, and emails that show gratitude, praise or congratulations. (Cathy)

Wing confirmed that it was trust and recognition from the school leaders that helped him to turn the Fashion Show Project into a success:

My principal and vice principal were very supportive, both in terms of providing resources and in terms of just providing encouragement along the way. When we were busy finishing the fashion show preparation, they came to our workshop just to say few words of praise for the students' work. The students and I were then only too happy and filled with energy to carry on. Their trust and recognition were so important. (Wing)

Trust, support, and recognition of my work were the fuel in motivating me to carry on. I would do my best to learn and to contribute, and the most important was to share the happiness of success with my students. (Wing)

Ah Lee and Duck believed that their ability to be resilient was enhanced by the trust in them to make decisions and the control that they were given over their work.

Ah Lee noted that being empowered to make decisions in organising the lion dance function contributed to his resilience, because it allowed him to be flexible and it granted him a high sense of professional recognition:

My principal is a resilient person. She has confidence in us and is trustworthy, and she knows when to give a free hand to us. As a senior staff member, I always have choices in how I deal with situations. Having a choice gives me the flexibility to shift, so as to change a potentially negative situation into a positive one. These possibilities are based on trust and recognition. (Ah Lee)

Duck agreed that having a chance to make decisions meant that he must keep it up:

It is always about decisions. We learn to take responsibility for our choices and decisions. ... It is easy to quit or walk away from the job, but for me, I won't. Maybe this is my keenness of character. If I quit, that means I am admitting defeat. Just like I've made a choice to be an EBC teacher. I have to stick to my will and my decision. (Duck)

When asked whether there was anything of which they were particularly proud, three interviewees indicated that gaining of trust and recognition were their rewards:

The students are very different now. I have respect from them. Actually we are mutually respectful. Students' behaviour has improved: no more fighting and no

more anger; they all behave. My principal agrees with me and has recognised that my tactic to win students' hearts by love and care has been successful.
(Duck)

I'm so proud of working here, that I can work with these students, and that I have given them a chance for improvement. Their academic performance in English language has improved. The principal, students, parents, and colleagues all recognise that I'm a successful teacher! (Monica)

I am very proud of their performance in the fashion show. The boys were really exceptional, they were so creative and so self-organised. On the catwalk, you could see fire in their eyes. The project was extraordinary. Their performance was so great that it won much positive feedback and recognition. It changed the views of the public about EBC students. (Wing)

Being Part of a Working Team

Four respondents agreed that team work was a dimension of their resilience. Working in a team they saw as reinforcing their strength and making them feel supported:

When handling problem students, we work in a team. We work together to share the best approach to handling the same case. There's always a team spirit to it.
(Alice)

Colleagues are marvellous. I think it is really important to have a good team to help each other. When I started the Fashion Show project, there was a lot of support in the school. I was not a well-organised person, but I had been fortunate to have buddies next to me to remind me and to help me to stay organised.
(Wing)

Teamwork is very important. You can vent and release your frustration to teammates and accept their understanding and advice; they can also support you if you are having trouble. (Monica)

Clayton further suggested that teamwork was important for novice teachers' growth and development:

We have a critical friends group. It is a group of six novice teachers from two SDSs. We meet bi-weekly to share experiences of school life, education issues, and philosophy. We trust one another and we share similar cases in the similar context and environment. If I have had any success in being a teacher, I think it is

not owed to me but to the people around me. Their support has nurtured my growth. (Clayton)

Experiencing Supportive and Caring Leadership

Three respondents acknowledged supportive and caring leadership an important dimension of resilience:

Our principal always makes herself available; always makes it known that she's there to support. She is very trustworthy. Also she trusts us that we'll do the right thing. With support and recognition from her, I never once feel that I am left floating by myself in the big sea. I know I'm not working alone. (Alice)

Clayton felt especially grateful when he described how the leadership team responded in the particularly distressing incident of two boys climbed over the wall and running away:

They absolutely cared. This was so terrific. They were all concerned. They quickly worked together to respond: contact police, contact parents, call the boys' mobiles and go out street looking for them. ... But yet they also kept on asking whether I was OK? They asked about my feelings too!! I was not being looked down upon for my silly mistake, I felt I was part of the school. They accepted me as a buddy. They were concerned about how I felt and whether I'd cope with this event, and this made me feel I was not alone. (Clayton)

No matter whether the respondents were novices or experienced teachers, they all admitted that strong support and encouragement from their supervisors and especially from the school principal were vital in establishing their resilience:

My principal's support made me feel safe. I was assured that if anything happened I could count on her support as always. So I didn't have to worry about anything, because the administration and the team trusted me and I trusted them. It was extremely important, because it provided a safe environment for me to learn to be an effective teacher. (Clayton)

Wing's description echoed with Clayton's comment:

In the very urgent moment, I didn't have to worry even when the class was out of control. Our school has a discipline team to provide support. We have a system. If we are having problems with a student, the discipline master and his team will take care of the student and thus we can continue teaching. I think it's very

important to have time-out for both parties [teacher and the student]. We have a very good backup from the leadership team. (Wing)

Experiencing Supportive Administration

Two respondents identified supportive administration as a dimension of their resilience:

The whole senior staff here are very supportive. They all work well together and respond quickly. So the problem won't get a chance to escalate. (Clayton)

Two SDSs had task force teams set up to work on students' behaviour and learning progress. These task force teams had regular briefing and de-briefing sessions to facilitate communications among staff. For example, one school had put aside a 15-minute briefing meeting every Monday morning and a 30-minute de-briefing meeting every Friday after school for all staff. They also placed an express message box and a notice board in the staff room for immediate written communication. Another SDS had arranged a mid-week high-tea session to allow colleagues to meet up with others in a warm and casual atmosphere.

Ah Man noted that the administrative arrangements of his school helped to promote a supportive and collaborative school climate:

We have sharing sessions every Wednesday afternoon. Very casual, just with cups of tea. We can exchange ideas, but most important of all, this gives us a chance to put one's hand on others' shoulder as a gesture showing support and encouragement. (Ah Man)

Three SDSs had arrangements for reporting 'happy news' in monthly bulletin boards and in quarterly school newsletters. These arrangements provided a simple and inexpensive way for all school members to know what was happening in their school. In the newsletters, the addition of recognitions, thank-yous, warmest blessings, and personal news promoted high morale in the school enhancing resilience.

A typical example of how administrative arrangements could be supportive was that of a school intentionally scheduling special timeslots for team meetings in the school timetable. Wednesday afternoon was reserved for meetings on collaborative teaching and staff development, and at the same times, students were given extra-curricular activities supervised by outsourced instructors. This arrangement provided the operational and environmental conditions that made teachers more collaborative and more contented with their work.

Having a Strong Mentoring Program

Three interviewees shared their varied experiences in and their expectations of the mentoring programs in SDSs: seeing a strong mentoring program as an important dimension of their resilience. Monica claimed that her first mentor was assigned to her but was not very helpful nor prepared to support her. She then looked for another colleague from whom she received great support, not only in her work at school, but also in supporting her emotionally and personally. As she perceived, this should have been the formal mentorship.

My real mentor [the self-sought one] was an experienced teacher. I met her by chance in the school office when I reported for duty on the first day. I felt that she was assigned to me by God; she was my angel. She was very kind and humble, very helpful and experienced. (Monica)

Kelvin also suggested that his self-sought mentor was very helpful and supportive, but there was not any formal type of mentoring system in his school. The guidance and help that he gained from his good friend and mentor had, he said, contributed to his teaching effectiveness and made a difference to his professional development:

Facing the EBC students, classroom management was an issue in my first year teaching in SDS. In the first month, I had no idea of teaching and motivation. I was confused and felt lost. Fortunately my panel head helped me. He invited me to observe his lesson and then I tried to apply what I learned from him in teaching. He gave me a lot of tips in classroom management strategies and how to engage students in learning. At that time, there was no such concept as mentoring in school. His help to me was for the sake of friendship only. Five years passed and I was still benefiting from the models and experiences that I gained from him. (Kelvin)

Alice was very fortunate to have a mentor assigned to her who fitted her needs. She noted the importance, especially for a novice teacher, of having mentoring support:

My mentor was really awesome. She could understand my difficulties. She realised that this year was my first time teaching and I was not assigned to teach my elective subject [music]. When I planned to have the music interest class and the mini concert, she 100 per cent supported me. I was emotionally touched and felt grateful! (Alice)

An Overview of the Dimensions of Teacher Resilience

This chapter reported the findings obtained from the interviews with the 11 resilient EBC teachers, in which the resilience factors impacting on their resilience and the strategies employed by them to enhance their resilience in the context of the SDSs were reported.

These resilience factors and strategies were collectively termed dimensions of resilience and were categorised as either individual dimensions of teacher resilience or organisational dimensions of teacher resilience.

Identified individual dimensions of teacher resilience are those of: (1) having a positive attitude, (2) being a committed teacher, (3) being a lifelong learner, (4) being a reflective teacher, (5) having a sense of purpose, (6) having faith and spiritual support, (7) being positively detached, (8) maintaining a work-life balance, (9) having a sense of success, (10) being flexible, (11) using a problem-solving approach, (12) having a sense of humour, and (13) being creative.

Identified organisational dimension of teacher resilience are those of: (1) having a positive school climate, (2) having positive and supportive relationships, (3) experiencing trust and recognition, (4) being part of a working team, (5) experiencing supportive and caring leadership, (6) experiencing supportive administration, and (7) having a strong mentoring program.

These dimensions are carried forward into the next chapter for discussion in the context of existing research-based knowledge to identify the contributions to public knowledge flowing from this study.

Chapter Seven: Discussion

Introduction

This chapter examines and interprets the results precipitated from this study as presented in Chapters Five and Six in relation to the research questions formulated in Chapter Four, with reference to the background and the literature as reviewed in Chapters Two and Three.

Bringing together the findings gathered from the survey questionnaire and the interviews, allows me to depict a detailed and comprehensive picture of EBC teachers' stress, burnout and resilience circumstances in Hong Kong. These findings are here discussed to identify what they contribute to our knowledge of the relationships between stress, burnout and resilience among EBC teachers in Hong Kong.

The discussion has been divided into the following three sections:

- i. Stress, burnout and resilience conditions of the EBC teachers.
- ii. Individual dimensions of teacher resilience.
- iii. Organisational dimensions of teacher resilience.

Stress, Burnout and Resilience Conditions of the EBC Teachers

The analyses of the quantitative data indicated that: (1) the stress and burnout levels of the EBC teachers were moderate; (2) student misbehaviour was not the main factor that led to teacher stress; (3) stress, burnout and resilience factors were interrelated; and (4) the resilience of the EBC teachers was at moderate to high levels.

Moderate Stress and Burnout Levels

In the past two decades in Hong Kong, teacher stress and burnout conditions have been at high-risk levels (e.g. Chan *et al.*, 2010; Chan, 1998, 2002, 2003, 2005b, 2006, 2007, 2010b; Chan, 2006; Chan & Hui, 1995; CTTHK, 2006; CTW, 2006; HKEC, 2006; HKFEW, 2002, 2006; HKPTU, 1995, 2001, 2003, 2004, 2005a, 2008). Those local studies were about the alarming levels of stress and burnout conditions of mainstream teachers in Hong Kong, with heavy workloads and student misbehaviour identified as the major reasons for those levels. In this study, however, the identified moderate stress and burnout levels of the EBC teachers in SDSs were unexpected, and the reasons for these differences warranted further investigation.

In order to explain the above discrepancy between the findings from this study

and others related to stress and burnout levels of both EBC teachers and mainstream teachers, the distinctiveness of the SDSs in Hong Kong's educational system should be taken into account in the first instance.

The EBC teachers interviewed in this study reported that they had only moderate levels of stress and burnout: possibly due to their psychological readiness to teach the EBC students in SDSs. A number of the interviewed resilient EBC teachers remarked that they were psychologically prepared to deal with the difficulties in their special education teaching posts. The EBC teachers indicated that they were committed to their teaching and believed that the changes, growth and improvements of the EBC students were within their abilities and capacities to handle. In addition, their positive attitudes, a high sense of purpose and collegiality were positive factors that might be expected to have moderated stress.

The EBC teachers also felt that they were assured by the school administration that they had relatively high independence in handling their teaching and their students, especially in terms of professional decision-making. This minimised the frictions and pressures with the school administration and thus would be expected to have helped to reduce stress and burnout.

The school structures of the SDSs are also worth noting. In Hong Kong, under the special education system, the EBC teachers enjoyed relatively high job security. This was because not many novice teachers were willing to join such a challenging special educational field to teach the EBC students. In SDSs, teachers usually could hold permanent positions and would not be appraised in a way that could significantly affect their position. These advantages might be seen as helping to eliminate the feeling of insecurity regarding their job and salary, and thus were likely to have alleviated some of their feelings of high stress and burnout.

The EBC teachers, as they described their schools, felt that they had warmer and more family-like cultural climates. They had smaller school sizes (maximum 300 students in one school), better student-teacher ratios, as well as smaller class sizes to facilitate communication and interaction.

In the SDSs, teaching teams were humane and supportive. They had little public examination pressure. Instead, they had shared education goals of working for the good of the students' growth and development: their first priority goal in EBC education. The main duties of EBC teachers were to help students return to a socially acceptable

developmental track, to improve their emotional and behavioural difficulties, and to have fulfilled and bright futures, instead of being counted by their lack of academic performance. EBC teachers in the SDSs had more autonomy in their teaching. They could adopt their own curriculum based on what they considered to be most suitable for the students' learning needs, without the pressure of chasing the public examination syllabus.

The EBC teachers clearly cared what happened to students and took precautionary measures to avoid becoming emotionally un-empathetic as a result of their job. They clearly cared for their students with empathy, understanding and acceptance. They used strategies of detachment and depersonalisation in handling student cases, thus effectively dealing with students' problems without being emotionally eroded. They had a high sense of self-efficacy in teaching and handling student misbehaviour. They could readily create a relaxing atmosphere with students and could accomplish worthwhile things in their jobs. They found teaching EBC students joyful and fruitful as they could positively influence students' lives through their guidance and caring.

It may thus be seen that the above-mentioned factors of having a sense of job stability, having autonomy in their teaching, and their caring and love for their students had contributed to protecting the EBC teachers from being overwhelmed by their work while giving them satisfaction in it. Those factors could be seen as providing a credible explanation of the moderate stress and burnout levels of the EBC teachers reported in this study, in contrast to those findings of previous local studies that created a general belief that all teachers alike suffered similarly high levels of stress and burnout. Such moderate stress and burnout levels exhibited by the EBC teachers would be a considerable asset in the study of teacher resilience, as these EBC teachers possessed the characteristics necessary for enhancing resilience.

Student Misbehaviour was not the most Significant Stressor

A number of previous studies (e.g. Chong & Au, 2008; Chong & Ng, 2011; Ho, Leung & Fung, 2003; Pang, 2012) in Hong Kong suggested that student misbehaviour was the major factor that led to teacher stress. In contrast, the results of this study revealed that student misbehaviour ($M=2.40$) was not the most significant factor that led to teacher stress. Rather, workload and time pressure ($M=2.63$) were found to be the most significant factors in this regard. The EBC teachers experienced higher stress when

they had insufficient time in which to undertake their work ($M=2.82$) and when they had too much work to do ($M=2.78$): a finding, though, that accords with the studies of City Think Tank Hong Kong (2006), Committee on Teachers' Work (2006), Hong Kong Federation of Education Workers (2002), Hong Kong Professional Teacher's Union (2005a), and Jin, Yeung, Tang and Low (2008) studies.

Explanation for this finding may be found in the interviews with the resilient EBC teachers. Resilient EBC teachers commonly identified student misbehaviour as being a motivator for them. With their positive beliefs on EBC education, they worked with empathy for and understanding of students and they had a clear goal of making changes for their students. These characteristics may have helped them to moderate the stressor of student misbehaviour.

It had already been suggested by Yoon (2002) and Pang (2012) that teachers' positive beliefs could be seen as a moderator of the effects of student misbehaviour on teacher stress. Teachers' positive perceptions of student misbehaviour were thus linked with teachers' experiences of stress and teaching efficacy.

Greene, Abidin and Kmetz (1997) also suggested that teachers with different strengths of belief might assign different meanings to a challenging behaviour. Teachers with high self-efficacy and low negatively self-critical attitude could be more likely to interpret the challenging behaviour as a motivator, rather than threatening. EBC teachers in this study indicated that they were committed to the EBC educational goal of making better changes for their students. They were able to apply their positive education beliefs in their teaching and were thus less stressed and less burned out.

The finding in this study that workload and time pressure were the major stressors for teachers in SDSs, is thus importantly different to a general perception from the literature to date that student misbehaviour is the overwhelming stressor.

Factors of Stress, Burnout and Resilience were Interrelated

The correlation analyses in this study indicated that EBC teachers' stress, burnout and resilience were interrelated: stress and burnout positively, and both of them negatively with resilience. The acknowledgement of this relationship was the cornerstone in formulating the model informing the study, where resilience was identified as an important moderator of stress and burnout, and the resilience factors were seen as the variables contributing to the prediction of stress and burnout among EBC teachers. Those variables in this study were measured by the scales of teacher self-efficacy,

resilience and collective teacher self-efficacy.

The relationship between teacher self-efficacy and resilience was linked to successful experiences in teaching where EBC teachers with a high level of self-efficacy reported suffering less from stress and burnout. This result resonated with the research finding of Gu and Li (2013) that, among the group of 500 Chinese teachers in Beijing, self-efficacy was highly associated with teachers' sense of being resilient.

As expected, the correlation analyses revealed that the three resilience variables (teacher self-efficacy, resilience, and collective teacher self-efficacy), individually or combined, were associated negatively with teacher stress and burnout. This, indeed, supported the notion that high levels of resilience fuelled EBC teachers with positive energy to overcome stress and burnout. These findings were in line with the studies of Chan (2003, 2007, 2008a), in which teachers in Hong Kong with a higher level of self-efficacy and hardiness reported lower level of stress and burnout.

What this study, though, has added to that understanding, is that while many studies in Hong Kong had measured and reported levels of teacher stress and burnout from the existence of stressors, they had not accounted for the importance of the moderating function of resilience in the impact of stress and burnout levels. Hence, an understanding of the inter-relationship among stress, burnout and resilience has the potential to make any attempt to measure stress and burnout not only more accurate, but also more predictable, if resilience variables are included in the studies.

Moderate to High Levels of Resilience

The study revealed that levels of self-efficacy, resilience and collective self-efficacy as perceived by the EBC teachers were at moderate to high levels: suggesting a positive relationship of moderate to high levels of resilience among the EBC teachers.

Contributing to such a level of resilience in combating stress and burnout, then, would be the following capacities identified above as being associated positively with self-efficacy and collective self-efficacy: to learn from mistakes, to deal effectively with critical situations, to reach difficult students, to accomplish something positive at school, to ensure high instructional quality even when resources were limited, ability to achieve educational goals, and to come up with creative ways to improve the school environment with limited resources.

In Hong Kong, the quality assurance approach to education and the many

measures of ‘managerialism’ and ‘accountability’ had been seen as contributing to teacher’s stress and burnout (Cheng, 2009b; Pang, 2008), and the policies adopted by the Education Bureau on curriculum and education reforms as having posed significant challenges to teachers’ careers (Chan, 2006; HKPTU, 2005a; Tse, 2005). Interestingly, the EBC teachers in this study were found not to have been adversely affected by these factors, possibly because they indicated a moderate to high level of resilience. The implication of this is that resilience could be a buffer against the adverse impacts of rapid educational change with teachers’ individual and collective self-efficacy contributing to their resilience. This finding was fundamental in this study, since its over-arching aim was to identify factors relating to how EBC teachers developed, enhanced and sustained their resilience; and how resilience influenced their behaviour in responding positively to various intensifying contextual stressors.

The resilience variables were categorised in this study into three different areas – teacher self-efficacy (TSE), resilience (RS) and collective teacher self-efficacy (CTSE) – and generalised to individual resilience and organisational resilience, where TSE and RS adhered to individual resilience, and CTSE to organisational resilience. This generalisation provided a clearer focus from those two major perspectives to explore the diverse dimensions significantly in enhancing resilience, as follows.

Individual Dimensions of Teacher Resilience

In this study, the qualitative analysis from interviewing the EBC teachers revealed certain distinctive individual factors, characteristics, qualities, beliefs, and strategies that contributed to the enhancement of teacher resilience. They are presented as individual dimensions of teacher resilience: having a positive attitude, being a committed teacher, being a lifelong learner, being a reflective teacher, having a sense of purpose, having faith and spiritual support, being positively detached, maintaining a work-life balance, having a sense of success, using a problem-solving approach, being flexible, having a sense of humour, and being creative.

Having a Positive Attitude

Having a positive attitude means embracing life in both good times and bad times. The resilient EBC teachers’ mindset of accepting difficulties as a part of life was consistent with Coutu’s (2002, p. 48) “acceptance of reality” and the belief that “resilient individuals perceived problems as challenges to triumph over”. The EBC teachers had positive attitudes and were able to tap into positive emotions to help overcome stress.

They took responsibility for their own reactions to events, and they gained power to control their own thoughts. With positive attitudes, the resilient EBC teachers tended to take productive actions and work through difficulties.

Seligman defined positive attitude, or optimism, as a way to enlarge personal control (Seligman, 2006). In the present study, the resilient EBC teachers were found to be capable of remaining optimistic in responding to challenging situations. As Gu and Day (2007, p. 1304) stated, “Positive emotions fuel psychological resilience”. The EBC teachers’ positive emotions enhanced their efforts to deal with stressful situations and to confront adversities. They could thrive in situations distressing to others because they had learnt good lessons from bad experiences (Siebert, 2005). According to Fredrickson (2001), an individual’s understanding and use of positive emotions is linked to psychological resilience. A resilient teacher would thus regularly experience positive emotions and maintain a positive mindset. Factors such as passion, enthusiasm and fulfilment reflecting positive emotional states had also been reported as critical to teacher resilience (Le Cornu, 2013; Tait, 2008).

In Hong Kong, the acknowledgement of positive attitude attributing to a strong resilience is rather limited in local literature, although Chan’s studies (2010a, 2010b, 2011) of teachers’ ability withstanding stress found that forgiveness and gratitude were among the many paths to a positive attitude. The present study thus significantly extends our understanding of the role of a positive attitude in enhancing teacher resilience within EBC teachers in Hong Kong SDSs.

Being a Committed Teacher

In this study, all 11 resilient teachers interviewed spoke of a commitment to their work as the most important dimension of their resilience. In their respective schools, they demonstrated a strong focus on the care of their students’ growth and development. They were psychologically bonded with their students, and those bonds they considered to have a positive effect on their attitude and behaviour in the profession. Their commitment served as a strong driver in enabling them to remain meaningfully engaged in EBC teaching. They indicated a strong sense of professional commitment. They were committed to their students’ growth and changes, and the educational goal of making some changes was a strong drive enabling them to be resilient. Some resilient EBC teachers specifically reported that they had inner callings for them to join this field of special education. Their intrinsic motivation and emotional commitment to

provide better education for the EBC students they saw as integral to what they did in the profession. They indicated that their work could contribute to make a difference in students' lives, and they recognised that teaching in SDSs could yield personal meaning, satisfaction and fulfilment. The enthusiasm and love for their students not only drew the EBC teachers in this study into teaching, but also provided them with the inner strength to continue to teach to their best in the face of the challenges and the complexities of teaching. It was a sustained sense of commitment that kept teachers enthusiastic and professionally fulfilled over the course of their professional lives in EBC education. The EBC teachers also reported experiencing less stress because of their commitment and goals in EBC education in helping youth growth and making some changes in society.

Studies of special education teacher attrition have suggested that teachers with higher levels of professional commitment are more likely to stay and more likely to intend to stay in teaching (e.g., Billingsley, 2004a; Chong & Au, 2008). As Gu and Day (2007, p. 1314) stated, "Where motivation and commitment are maintained, teachers are able to meet the challenges encountered in their work and lives and thrive professionally". Brunetti (2006, p. 818), in a study of USA high school teacher resilience, suggested that "a person's chosen profession should make things better for the world". Patterson, Collins and Abbott's (2004) finding provided further evidence that resilient teachers might be motivated by their commitment to students. They found that resilient teachers had a set of personal values that guided their work; they valued and actively sought-out professional development; they acted as mentors to other teachers; and they were expert problem-solvers. Inner callings, inner drives, or intrinsic motivations have been suggested elsewhere to be important dimensions of resilience (Kitching, Morgan, & O'Leary, 2009).

Choi & Tang (2009) examined the commitment of Hong Kong teachers in the decade after the political transition in 1997, during which when large-scale education reforms were launched. From their study, 'love for students' was argued to be a crucial personal factor counteracting unfavourable external conditions to sustain teacher commitment. The importance of commitment also echoes Day and Gu's (2014, p. 142) concluding message in their book on resilient teachers and resilient schools to the effect that "It is the commitment to serve and the joy of being able to make a difference to the lives and achievement of young people that kept them in the profession".

However, in Hong Kong, teacher commitment in the teaching profession has rarely been referred to in any specific studies, as it is difficult to measure and its scope can be seen as too open, as well as bearing a risk of credibility. This study, then, is significant in revealing teacher commitment to their profession as of prime importance, especially in establishing resilience. That impact should not be underestimated.

Being a Lifelong Learner

In this study, the EBC teachers demonstrated that they had a positive lifelong learning mindset to continually drive themselves to be more resilient. They had high levels of teaching performance and possessed habits of lifelong learning. They attended professional development courses, including those on teaching and learning, new concepts in special education, student counselling, curriculum design, and teachers' personal growth and development. They also collaborated with and learned from each other. They saw themselves as lifelong learners in the process of becoming dedicated educators. In so doing, they also served as excellent models of resilience for their students.

As Skaalvik and Skaalvik (2009) stated, professional growth allowed teachers to have a sense of self-efficacy and autonomy which were important for enhancing teacher resilience. In their study of Chinese teacher resilience, Gu and Li (2013) found that teachers' vocational commitment embodied a strong desire for continuing professional learning and development. Engaging in ongoing professional learning has also been argued by O'Sullivan (2006) to be an important strategy for enhancing resilience, especially when it responds to teachers' interests, needs and aspirations. Resilience has also been seen as a continuous process, not a stable stage, calling for continual growth and development. As Day and Gu (2014, p.141) suggested, "Being a resilient teacher means more than 'bouncing back' quickly and efficiently from unusual crisis..., to teach, to teach well over time, requires everyday [to grow] resilience".

Teachers' lifelong learning very often may have been perceived as equivalent or limited to continual professional development, particularly to address the need for teaching efficacy. To certain extent, this is correct if lifelong learning is 'demanded' or 'required' by circumstances developing in the teaching profession. Nevertheless, this study revealed that the EBC teachers engaged in lifelong learning willingly and considered it a joyful habit. Thus, what this finding of the study implies is an understanding of lifelong learning as an effective promoter of teacher resilience.

Being a Reflective Teacher

Reflective thinking was identified as yet another important dimension of individual resilience. Seven of the resilient EBC teachers in the interviews indicated that practices of reflective thinking had contributed to their resilience. Indeed, they suggested that the conceptual thinking skills that they had developed from different experiences gave them a wider range of perceptions on issues, facilitating their problem-solving, creative thinking and critical thinking. Reflective thinking was not just about how teachers thought, but also about how they constructed experience, including their thoughts, feelings and social relations. It involved creating opportunities to step back and think, to think about how they could actually solve particular problems and how a particular set of problem-solving strategies might be appropriate for achieving their goals in education. Reflective thinking was important in prompting learning during complex problem-solving situations.

There is found little existing literature addressing reflective thinking as a dimension of teacher resilience, although, some on the characteristics of becoming a reflective thinker, such as Moon (1999). In Hong Kong, the study in the area of reflective thinking to resilience is also very limited. This study, then, importantly contributes reflective thinking as a dimension of resilience among EBC teachers in Hong Kong SDSs.

Having a Sense of Purpose

The resilient EBC teachers demonstrated a strong sense of purpose in this research. They valued what they had and recognised their decision to work in EBC education. Teaching in SDSs provided them with meaning, fulfilment and satisfaction. In the interviews, the EBC teachers expressed their goodwill, their sense of service, and their care for their students' future. They recognised that teaching in SDSs was challenging, yet they were able to bounce back from setbacks and decided to stay. They explained that they had a solid sense of purpose in which they were strongly devoted to changing students' lives and spending a greater amount of effort to make a difference. This strong sense of purpose might well have allowed them to perceive undesirable events as less significant, enhancing their resilience in combating stress and burnout.

This finding accords with Coutu's (2002, p. 48) suggestion that "resilient people have strongly held values, and believe that life is meaningful". Similarly, Day and Gu (2014) suggested that resilience, as the capacity to manage the unavoidable

uncertainties inherent in the realities of teaching, was driven by teachers' educational purposes and moral values. A study by Castro, Kelly, and Shih (2010) revealed that teachers who valued their career were more likely to have a stronger sense of identity, resilience and commitment. And in the final report of the Variation in Teachers' Work, Lives and Effectiveness (VITAE) study by Day, Stobart, Sammons, Kington, Gu, Smees *et al.* (2006b) found that teachers in the VITAE projects had maintained a strong sense of purpose and agency, believing that they could make a difference in the lives and achievements of their pupils, and that their teaching was a meaningful profession through which they could shape the lives of future generations.

This study thus acknowledges similar findings of the existing literature with regard to the importance of a sense of purpose contributing to teacher resilience. It also, though, has pinpointed some meanings of 'teacher purpose' specifically in the context of SDSs, like 'changing students' lives' and 'making a difference'. It suggests that teachers having a sense of purpose is an attribute of teacher resilience.

Having Faith and Spiritual Support

Five resilient EBC teachers identified faith in association with empathy and acceptance as enhancing their individual resilience. One of the participants was a practising Buddhist. He demonstrated his capability to accept unfavourable situations and his inclination to respond with harmony and pro-sociality. Another four participants cited personal spirituality and membership in a church community as significant sources of support for them. They indicated that they prayed or meditated whenever they encountered obstacles beyond their present ability to resolve. For these resilient EBC teachers, support and resources were obtained from their faith and spiritual activities.

Religiousness has often been perceived as correlating positively with positive health attributes, both generally (e.g., Curry & O'Brien, 2012; Yates & Masten, 2004) and as a protective resource for teachers (Ebersöhn, 2014). The finding of the present study of a positive relationship between faith and resilience is thus in accord with such views and with the finding of Kennedy and Kanthamani (1995) that teachers reporting spiritual experiences were inclined generally to have a greater sense of meaning in life. They suggested that it was the personal self-awareness of teachers guided by a moral compass [faith] that created a foundation for ethical decisions.

Hong Kong generally evidenced no related studies on the contribution of faith and spirituality to teacher resilience, and indeed it seems to lack any kind of

acknowledgement for their possible impact in education. This dearth reveals an inadequate awareness to teachers' non-material and emotional needs. From this study it does suggest the importance of faith and spirituality in contributing to teacher resilience from an emotional aspect: in terms of emotional resources positively supporting or protecting teachers from setbacks. The study also suggests that these two elements are significant personal attributes – including empathy and acceptance to student misbehaviour – affecting an individual's resilient behavioural responses to challenges. Thus, this study adds to existing knowledge, specifically in Hong Kong, the suggestion that faith and spirituality constitute an important resilience dimension nurturing an individual's emotional wellbeing.

Being Positively Detached

In this study, five resilient EBC teachers were identified distinctively in possession of an ability to set appropriate emotional boundaries by detaching themselves when confronted by specific crises. Nevertheless, choosing a detachment response did not necessarily involve a behaviour of escaping and avoiding, nor an incapacity in handling problems. Rather, it suggested an effective strategy to enhance resilience against stress. Identifying participants suggested that, if they detached themselves with a positive intention (e.g., to perceive the situation from a different perspective in order to find out alternatives to resolve the problem), they could be protected from aggressive and emotional responses that could only intensify stress. Such detachment helped them to set emotional boundaries, which protected them from both physical and emotional overload.

In previous research, Hong (2012) found that setting emotional boundaries to prevent stress and burnout was a strategy used by teachers staying in the profession. And Meister and Ahrens (2011) suggested that having clear boundaries could enable teachers to feel secure, take risks and act autonomously.

In Hong Kong, teachers' detachment is mostly associated negatively with a behaviour of avoidance and failure as a result of stress. Indeed, these resultant behaviours have largely been attributed to an individual's burnout. But from this study, detachment is suggested to be an effective strategy to cope with stress by setting up a boundary, or in similar sense building up certain levels of resilience. These two completely different consequences, though, much depend on an individual's cognition in employing detachment as a strategy. And this is exactly what this study tries to

pinpoint: detachment must be carefully employed, good or bad as contributing to resilience: as a proactive strategy with a positive intention.

Maintaining a Work-life Balance

Five EBC teachers spoke in the interviews of their life styles – managing work-life tensions by managing their time intelligently. When they had work to complete, they focused. But they usually left their work in school after a day's teaching and returned home with free hands to enjoy family life. Some indicated that they were able to have time free from work after school or in the weekends, so they could maintain their social life (meeting friends, doing sports / gymnasium exercises, enjoying hobbies).

Some previous studies into the relationship between work-life balance and teacher resilience have already indicated that teachers who were able to balance their work, family and life commitments were happier in their job and were more likely to stay and work towards a rewarding and productive career (Le Cornu, 2013). Tait (2008) further suggested that work-life balance could even be related to the level of teachers' social networking and physical activities: teachers who were resilient would actively take care of themselves, they could recognise their own stress levels and would take steps to reduce their stress through physical activity or social networking.

Hong Kong, a traditional Chinese society, has commonly been seen as a conservative culture believing strongly in hard work as a virtue, which has driven teachers to a workaholic tendency. However, this study raises awareness of the possible costs of an unbalanced work-life style that may have been overwhelmingly overshadowed by such a traditional virtue, particularly in intensifying teacher stress, whereas a work-life balance may indeed contribute to teacher resilience. This study thus adds to our understanding and acknowledgement to the importance of work-life balance in enhancing teacher resilience.

Having a Sense of Success

Another dimension identified in enhancing teacher resilience was having a sense of success. In interviewing the resilient EBC teachers, three participants were found to have a clear and determined set of education goals that they saw as contributing to their success. Instead of seeking high student academic performance results in public examinations, as in mainstream schools, the education goals of resilient EBC teachers were to change the behaviour and attitudes of their EBC students in appropriate directions. Their sense of success was based on their students' success in so changing.

Whenever students showed behavioural improvements (such as a better concentration in class work, an improvement in managing temper, or improvement in building respectful and caring relationships) or even a minor improvement in academic performance, they felt rewarded. Likewise, if their students' success was recognised (such as success in the lion-dance performance or the garbage fashion show), they shared the same sense of success as their students. These resilient EBC teachers believed that their success in changing a student was far-reaching and meaningful, especially with those students having identified behavioural problems. Such an enhanced sense of success might well be used to explain a relatively higher level of resilience for teachers in SDS compared to those in the mainstream schools as identified earlier in this study.

This positive relationship between sense of success and resilience confirms a finding of Gu and Li's (2013) study in which it was found that the Chinese teachers' job fulfilment was derived from their satisfying professional capacity.

This study, though, besides reaffirming the positive relationship between teacher sense of success and resilience already identified in some existing literature, also points to a specific feature of teachers' perceived success as 'derivative' in nature from students' success. Therefore, the realisation that teachers having a sense of success is an important dimension of their resilience, student success must be given wider recognition than that limited to a narrow yet overwhelming orientation to examination of academic achievements. Only when success can be given a wider scope for recognition, appropriately and clearly defined in adaptation to school education goals, achievable (by students), deliverable (by teachers), and meaningful (to both teachers and students), will teachers having a sense of success be fully recognised as contributing to teacher resilience.

Using a Problem-solving Approach

In this study, though, only three of the resilient EBC teachers indicated their belief that having the capabilities to solve problems effectively contributed to their resilience. Problem-solving capabilities were identified in areas of creativity, flexibility, networking and collegiality. These teachers, by initiating creative projects with the resources from their networking, widened students' learning experiences and enhanced their self-confidence, which, in itself, contributed to changing students' behaviour

positively. When problems arose, the teachers took charge and sought solutions. When facing obstacles, they reacted in positive and possible ways.

Patterson and Kelleher (2005) suggested that, by practising problem-solving skills regularly, teachers would be better prepared to cope with emerging serious challenges, and that those who coped with stress by actively solving problems appeared to be more resilient than those who simply responded emotionally to stressful situations.

In this study, the points of interest contributing to existing studies are largely in acknowledging teachers' problem-solving approach and the demonstrated capabilities to enhance their resilience: understanding and appreciating their problem-solving approach, especially when they put their capabilities of creativity and flexibility into place.

Being Flexible and Creative and Having a Sense of Humour

Flexibility, creativity, and a sense of humour were identified in this study as another cluster of dimensions enhancing individual teacher resilience, although there were only two or three identifying teachers in each case. They are clustered here to facilitate their discussion.

Three EBC teachers suggested that flexibility attributed to their resilience. They perceived themselves to be flexible thinkers, readily adapting to changes by applying positive mindsets at work and acquiring new knowledge to respond to crisis. By changing perceptions and thinking positively, they indicated that they could put challenging events into opportunities.

Two resilient EBC teachers demonstrated how they employed creativity in their lesson designs and project designs to enhance student motivation in learning, subsequently helping to change student behaviour positively. They saw creativity as an important personal trait that enabled them to have additional options in response to challenges. And if the solution proved to be a success, this gave them a greater sense of success as the solution was unique and due to their own creativity.

Two EBC teachers reported that they could handle embarrassments and crises by employing their sense of humour, with which they could reduce tension with laughter, avoid negative emotion from turning into stress, and build a positive climate to enhance resilience.

Siebert (2006) had previously suggested that resilience involved mental and emotional flexibility, which helped one to adapt quickly and adjust well, and that flexibility could make people strong and gentle, sensitive and tough, logical and intuitive, calm and emotional, and able to think in negative ways to reach positive outcomes. Previous research also indicated that “humour could enable teachers to endure negative emotions and gain a sense of emotional control” (Sharplin, O'Neill & Chapman, 2011, p. 142). Siebert (2005) explicitly stated that humour in the workplace could help to prevent burnout and increase productivity, and that humour could facilitate student learning by creating a more welcoming and relaxing classroom atmosphere (Bergen, 1992).

The relatively smaller number of interviewees addressing these three dimensions of resilience enlightened me to reflect on the inadequacy of resources in Hong Kong to provide relevant training in support of teachers' need for creativity, flexibility, and sense of humour, which could contribute to their problem-solving in school teaching. The participants in this study, like their students, had been trained under a conservative and traditional education model of “silent learning” (Sit, 2013, p. 37), focusing on loyalty, obedience, and conformity to existing rules and norms (Chan, 1999). This background might help to explain why the skills of creativity, flexibility and sense of humour are so rarely employed by Chinese teachers. Indeed, the research by Chen (2013) had revealed that the teaching of humour was missing from all teacher training programs in Hong Kong.

The prevailing culture in Hong Kong, being generally a traditional Chinese society, tends to be conservative in social attitude (relative to flexibility), committed to student obedience as a virtue in schools (relative to creativity), and to value rigidity as discipline (relative to sense of humour). Perhaps it is not surprising, then, that during the interviews with the resilient EBC teachers in this study, only a small number of participants identified these three dimensions to resilience. And as a matter of fact, no research study has been conducted so far in Hong Kong into these three dimensions and their possible relations with or contribution to teacher resilience.

Organisational Dimensions of Teacher Resilience

While individual dimensions were identified as significant in enhancing teacher resilience, the schools in which the teachers worked did also. Seven such organisational dimensions were identified from both the questionnaire responses and the interviews:

having a positive school climate, having positive and supportive relationships, experiencing trust and recognition, being part of a working team, experiencing supportive and caring leadership, experiencing supportive administration, and having a strong mentoring program. These organisational dimensions of EBC teacher resilience are discussed as follows.

Having a Positive School Climate

Having a positive school climate was noted by all the EBC teachers in this study as a major organisational dimension of their resilience. This finding is in accord with earlier research. Henry and Milstein (2004), for example, remarked that the quality of teaching was determined not just by the quality of the teachers, but also by the environment in which they worked, and that environments could significantly affect teachers' ability to cope with and to bounce back from adverse experiences. Stanford (2001, p. 83) found that "When asked to describe the ideal school environment, teachers rated familial and collegial school climate to be of top importance." And Bernard (1991) reported that providing care and support through unconditional positive regard and encouragement was one of the most critical elements that promoted resilience in school.

What this study contributes to existing knowledge in this regard is the realisation that a positive school climate may be beneficial to the resilience of EBC teachers in Hong Kong SDSs.

Having Positive and Supportive Relationships

The resilient EBC teachers identified the positive and supportive relationships they had with leaders, colleagues, students, parents and the community as significant dimensions of their resilience. When asked what factors contributed to their decision to stay in the profession, they spoke of such relationships.

The resilient EBC teachers described the respectful and trusting relationships with their leaders as attributes for the enhancement of resilience. This study thus acknowledges similar findings of the existing literature with regard to the importance of teacher-leader relationships as a contextual resource for resilience (e.g., Bobek, 2002; Day, 2012; Howard & Johnson, 2004). And there is evidence in the research of Day, Sammons, Leithwood, Hopkins, Gu, Brown, & Ahtaridou (2011) that trusting relationships between heads and their staff were a key feature of successful schools. Cameron and Lovett (2014, p.154) also found that "relationships were enhanced when

school leaders recognised the achievements of teachers and offered support and encouragement to stretch and grow”.

The EBC teachers also noted that collaborative, caring and trusting relationships among colleagues were very important for their well-being and development in school. This finding is consistent with Stanford’s (2001) finding that collaboration among colleagues and a collegial, supportive atmosphere could encourage teachers to persist in classroom. Similarly, Nieto (2003) pointed out that teachers relied on collaboration with colleagues to help them persist. Goddard, Hoy and Hoy (2004) also reported that social relationships and networks in and between workplaces brought intellectual, spiritual, and emotional resources, which teachers could use to enhance their resilience in school.

In the present study, the resilient EBC teachers valued their positive relationships with students. Many of them spoke of the satisfactions they gained from developing trust and caring relationships with their students. As Baker (2006) found that students who had positive and supportive relationships with their teachers would be better motivated to learn. In turn, Castro, Kelly and Shih (2010) found that teachers could derive satisfaction from building relationships with students. This study thus acknowledges similar findings of Castro *et al.* (2010) and Gu and Day (2007) that a positive teacher-student relationship was important in sustaining teacher resilience: positive relational bonds among students and teachers playing an essential role in creating an ideal condition for sustaining student engagement in learning, and building a strong team spirit and a collective sense of efficacy amongst teachers.

Parents’ involvement and their support in EBC education was also significant in helping student growth. In the SDSs, parents were invited to be actively involved in their children’s learning, collaborations with Parent-Teacher Associations facilitated such involvement. This finding echoes Bobek’s (2002) study that effective teacher communication with parents was an important dimension of resilience.

The EBC teachers also indicated that they were supported by their relationships with the community. They spoke of positive intention to earn understanding and acceptance from the community. By opening their school to community services, they gained positive social recognition. Through the concept of service-learning, students learned to serve and obtained better self-images. This is consistent with Gu and Li’s (2013) finding that teachers’ worlds were made up of multiple layers of relationships,

their resilience-building process was thus nested in a network of relations and was influenced, positively or negatively, by the quality of the relationships in which their work was embedded [no matter the work is inside or outside the school campus].

In identifying positive and supportive relationship as an important organisational dimension in schools for teacher resilience, this study has contributed this as a dimension of organisational resilience for EBC teacher in Hong Kong SDSs.

Experiencing Trust and Recognition

The EBC teachers mentioned that trust and recognition from their school principals and senior colleagues enhanced their teaching efficacy and professional development. They liked to be recognised for a job well done and to know that their efforts were appreciated. For some resilient EBC teachers, it was the professional trust and support from their leaders that gave them the motivation and strength to devote themselves whole-heartedly to working for the good of their students.

Also, trust between teacher and student facilitated communication and enhanced learning and teaching. In the SDSs, trust between teacher and student involved more than a positive, open and caring emotional connection, it also included teachers' belief in students' endeavour to improve and change.

In a trusting climate, EBC teachers could be open and honest in their thoughts and actions, so that they did not need to waste time and energy in guessing others' thinking and expectations. This confirms the finding of Bryk and Schneider (2002) that a trusting relationship between teachers in particular, was of vital importance in building their collective sense of resilience and contributing to strong associations between positive relationships, trust and pupil attainment in schools. Similarly, a school environment which was characterised with trusting relationships between different stakeholders had been found by Beltman, Mansfield and Price (2011) to have a significant influence on teachers' capacity to sustain their commitment and effectiveness.

The existence of teams of engaged and contented teachers in the SDSs did not happen by chance. In some SDSs, leaders deliberately created and nurtured a positive working environment in which the teachers could feel both personally and professionally trusted and recognised. Teachers who had trust and recognition from students, colleagues, parents and leaders had a high self-perceived teaching efficacy and a high sense of success, which enhanced their resilience. This echoes with the

finding of Day *et al.* (2006b) in their VITAE project that trust could enable teachers to build a sense of belonging in the school community. Hargreaves and Fullan (2012) also found that, once trusting and open professional relationships had been created, nurtured and developed, they would allow people to pursue their goals, and would serve to bind the organisation together and improve its efficiency.

The EBC teachers reported having a voice in decisions on the school curriculum, school policy and school activities, being involved in discussions and decisions in proposed curricular and organisational changes, could be seen as reducing their uncertainty about the schools' destiny. Trust and recognition were thus powerful motivators that enhanced self-efficacy and resilience. Similarly, Gu (2014) stated that relational resilience was formed through a web of strong and trusting relationships between teacher and leaders, teachers and teachers, and students and teachers. She also emphasised the importance of mutual empowerment, growth and support at the centre of the resilience-building process.

This finding of the study is thus actually quite similar and consistent with that in existing literature – acknowledging that teachers who are able to experience trust and recognition are resilient teachers – but it has been, to a large extent, understated in Hong Kong's school environment and the society.

Being Part of a Working Team

The EBC teachers in this study did not feel isolated, as there was a strong sense of collective efficacy in their schools. In the interviews, some novice EBC teachers indicated how their working in teams energised them. They considered team spirit to be one of the principle reasons why they were resilient. Teachers and leaders were found to share common visions for their schools. They worked together as a team to develop and achieve their mission statements and educational goals. When their effort was ultimately recognised, their loyalty and dedication to the team and to the school as a whole was elevated. Teachers reporting a high degree of collaboration also reported fewer conflicts in their relationships with others, and they experienced less burnout. The practices of critical friends groups, peer lesson observations and curriculum development teams in the SDSs were among the most noticeable examples of team work. Brunetti's (2006) study also found that teachers emphasised the importance of collaboration with colleagues in building resilience.

What this study also identified is the importance of the elements of team work, if it is to contribute positively to teacher resilience.

Experiencing Supportive and Caring Leadership

The school principals played a key role in nurturing and shaping teacher resilience by promoting supportive school climates and providing strong and consistent support for all teachers' emotional and practical selves. When teachers felt cared for then they, in turn, reported being more caring of their students. The EBC teachers acknowledged their leaders' exhibiting resilience in their understanding of and their support and caring for teachers' well-being and emotional needs. They reported feeling that this support and caring were substantiated almost everywhere, in such areas as curriculum planning, teaching and learning, student disciplinary policy, school administration, and communication. This finding resonated Ingersoll and Smith's (2003) report that the quality of school leadership and management played a significant role in creating the conditions which actively promoted teachers' commitment and resilience. Allison and Reeves (2011) also maintained that a culture of organisational resilience was built largely upon resilient leadership. When leadership was strong, caring, open and well-organised, school staff and school structures would become supportive.

In Hong Kong, the training provided to school principals and the way in perceiving their accomplishment have tended to focus on school management and administration, which to a large extent may have dictated their expectation of teachers in demanding rigid results. There have as yet been no studies that help to explain the importance of a supportive and caring school leadership. However, in this study, all seven principals in the SDSs had been successfully recognised by teachers in these schools as supportive and caring leaders.

Experiencing Supportive Administration

Supportive administration was also noted by the EBC teachers as promoting their resilience. Relatedly, supportive administration, such as administrative arrangements that encouraged the effective flow of information and communication among staff, were noted as helping teachers in managing the complexities in their everyday teaching life. The EBC teachers expressly admitted that their resilience was enhanced by all the administrative measures that facilitated their teaching efficacy. Maslach and Leiter (1997) reported that well-developed policies and procedures in a school could minimise teacher stress and provide a mechanism for responding to inevitable conflicts in

organisational life.

Generally in Hong Kong, school administration tends to focus on administrative measures of effectiveness and efficiency. What this study has suggested is that supportive administration necessitates a much more humanised consideration of teachers' needs.

Having a Strong Mentoring Program

Three EBC teachers shared their experiences of when they were new to the school and their expectations on the mentoring program in their schools. Although the experiences of these three novice EBC teachers varied, they all admitted that, when they felt tired and under overwhelmed stress, the mentors – whether formally assigned to them by the school or informally selected by them – offered support and encouragement, and enhanced their teaching efficacy and job satisfaction. However, the findings from interviewing these three teachers also revealed that an effective mentor-mentee relationships was not easy to build up and sustain. The deficiencies in the mentoring programs included school management's lack of awareness of its importance, inadequate mentor and mentee's preparation and training, and a lack of well-designed and well-structured mentoring programs that were also sustainable. Nevertheless, the EBC teachers in this study indicated that mentoring programs positively promoted their resilience in different ways, such as through providing information on the background of the school and practical advice in dealing with difficult situations, and emotional encouragements.

These findings echo the findings of other studies of mentoring programs (e.g., Hargreaves & Fullan, 1999; Hudson, 2011; Ingeroll & Strong, 2011; Kahrs & Wells, 2013). Lee and Feng (2007) suggested that the underlying reasons why effective mentor-mentee relationships were so hard to build and sustain included the bureaucratic structure of schools and the individualistic character of Chinese teachers in Hong Kong. They found that, in most of the cases, if mentors were assigned to, but had not volunteered for, their assignment, they tended to be unwilling or unable to engage with their mentees. They also suggested the possible importance of mentors being trained or ready, and management recognition of the importance of the mentoring program.

Other studies reaffirmed the contributions of mentoring to teachers and the importance of fostering an effective mentor-mentee relationship. Hudson (2013) found that a healthy mentor-mentee relationship could provide valuable support for early

career teachers, especially when the mentor was a positive and prosocial professional. Smith and Ingeroll (2004) identified the importance of mentor and mentee coming from the same teaching area. Fantilli and McDougall (2009) argued that a well-designed mentoring program could enhance novice teachers' self-reflection and problem-solving abilities, positive attitude and confidence, and reduce feelings of isolation.

The findings of this study are thus in general agreement with those of earlier work. What they contribute, though, is their particular focus on the importance of mentoring in the induction of EBC teachers in Hong King SDSs.

The Contributions of this Study to Existing Knowledge

In summary, it should be stressed that this has been the only study in the Hong Kong SDS context that has systematically examined the interrelationships between stress, burnout and resilience in EBC teachers.

This has been done using a range of appropriate instruments to clarify the interrelationships between those concepts in a quantitative fashion. Consequently, the findings here from the quantitative part of the study may be seen as raising the level of certainty about those interrelationships, confirming the hypothesised patterns between and among them. That pattern points to the likelihood of stress significantly contributing to burnout and raises the potential role of managing stress by focusing attention on the important stressors identified in this study through building resilience.

Previous studies have tended to focus on intervention skills and strategies in combating stress and burnout and in building resilience. What the major qualitative component of the study has established is the importance of internal and psychological dimensions of resilience of the EBC teachers. Such dimensions of resilience include teachers' commitment in the teaching profession, their positive beliefs in EBC education, their understanding, love, care, and acceptance of their students, and the spiritual dimensions of resilience. Dimensions of resilience are thus not only skills and strategies but also the internal and psychological constructs that strengthening teacher resilience. This contribution of the study to understanding of the field is clearly its outstanding contribution.

This study has, uniquely, contributed a detailed articulation of the individual EBC teachers' lived experiences in various dimensions. Through that understanding the way is opened-up for educational policy and practice to facilitate teachers in building

resilience.

While the study has involved the EBC teachers in SDSs in Hong Kong, these findings stand, at the very least, to be used in other educational jurisdictions and contexts to sensitise the management of stress and the reduction of burnout through the building of resilience, both individual and organisational.

Chapter Eight: Conclusions and Recommendations

This chapter begins by presenting the conclusions of the study. It then draws out recommendations for educational practice by school teachers, leaders and administrators, teacher educators and policy makers in building teacher resilience, before making suggestions for future research arising from the findings of the study.

Conclusions of the Study

The primary purpose of this study was to develop an understanding of the nature and conditions of stress and burnout experienced by EBC teachers in Hong Kong and of how they became resilient while working in the challenging environment of the SDSs. The conclusions of the study are as follows.

The Stress and Burnout Levels of the EBC Teachers were Moderate

Contrary to the general perception arising from previous studies that stress and burnout levels were high in the teaching profession in Hong Kong, EBC teachers exhibited only moderate levels.

Student Misbehaviour was not the Main Factor that led to EBC Teacher Stress

Student misbehaviour had been shown previously to be the major stressor among the four recognised leading sources of teacher stress (student misbehaviour, workload and time pressure, poor school ethos, and lack of professional recognition) but this study found that workload and time pressure was the major stressor and student misbehaviour the least.

The Resilience Levels of the EBC Teachers were at Moderate to High Levels

Resilience among the EBC teachers in the study was at moderate to high levels. This finding is perhaps the most important in the study, since modelling in the study identified resilience as a moderator of teacher stress and burnout.

Stress, Burnout and Resilience Factors were Interrelated

The study found a close association between variation in the levels of stress, burnout and resilience: stress and burnout being positively associated, and resilience negatively associated with both stress and burnout. This finding supported the modelling of resilience as a moderator of stress and burnout. This finding suggested the possibility of moderating stress and burnout by raising resilience through manipulation of the variables constituting the dimensions of resilience.

Dimensions of Resilience

The modelling identified the variables influencing resilience as factors and strategies impacting on the levels of individual or organisational resilience. They were identified as either individual or organisational dimensions of teacher resilience.

The Individual Dimensions of Teacher Resilience

Individual dimensions of teacher resilience were identified as those factors and strategies influencing the levels of teacher resilience that were qualities of the teachers themselves. The following individual dimensions of teacher resilience were identified in the study.

1. *Having a Positive Attitude*: Having a positive attitude emerged as the most important attribute to EBC teacher resilience, allowing them to remain optimistic and convert an emotionally toxic situation to emotionally nutritious.
2. *Being a Committed Teacher*: A commitment to one's work as a teacher amounted to the belief that they could make a difference in students' lives.
3. *Being a Lifelong Learner*: Being a lifelong learner involved having the mindset of engaging continually in professional development programs to enhance teaching effectiveness.
4. *Being a Reflective Teacher*: Being a reflective teacher involved reflecting critically on one's experiences, especially challenging teaching experience, after the event, to identify ways in which one might have managed in them differently and more constructively. It was seen as improving teaching effectiveness, which, in turn, contributed to resilience, allowing them to see things differently and become more forgiving of wrong-doings of their students.
5. *Having a Sense of Purpose*: Having a sense of purpose amounted to the EBC teachers perceiving their job as meaningful and feeling with fulfilment and satisfaction.
6. *Having Faith and Spiritual Support*: Having faith and spiritual support amounted to the EBC teachers' courage and a sense of purpose and meaning, enabling them to persist teaching in the tough environments of SDSs.
7. *Being Positively Detached*: Being positively detached amounted to the deployment of a strategy of detachment. It allowed teachers to combat stress

by avoiding emotional distress and facilitating recovery from difficult situations.

8. *Maintaining a Work-life Balance*: Maintaining a work-life balance was seen as an effective strategy by which teachers could take care of both their physical and mental wellbeing and hence to cope with stress.
9. *Having a Sense of Success*: Having a sense of success amounted to a clearly defined and appropriately recognised goal, and for the EBC teachers they believed students' success was their success.
10. *Using a Problem-solving Approach*: Using a problem-solving approach amounted to teachers' belief that they were capable to generate more available alternatives to tackle problems and to reduce their stress.
11. *Being Flexible and Creative and Having a Sense of Humour*: Being flexible, being creative and with a sense of humour amounted to teachers' significant strategies to build their resilience. Each of these strategies helped teachers become more adaptable to different situations and more able to respond to unexpected events.

The Organisational Dimensions of Teacher Resilience

Organisational dimensions of teacher resilience were identified as those factors influencing the levels of teacher resilience that were qualities of the schools in which they worked. The following organisational dimensions of teacher resilience were identified in the study.

1. *Having a Positive School Climate*: Having a positive school climate amounted to an environment that could significantly enhance teachers' ability to cope with and to bounce back from adverse experiences, thus contribute significantly to teacher resilience.
2. *Having Positive and Supportive Relationships*: Having positive and supportive relationships amounted to being part of networks of relationships with others that were mutually constructive, empathetic and encouraging: not only in school with other teachers, school leaders and students, but also with parents and the broader community.
3. *Experiencing Trust and Recognition*: Experiencing trust and recognition amounted to teachers' work and communication becoming more effective, as they could be open and honest in their thoughts and actions, which in turn

enhanced their self-perceived teaching efficacy and a high sense of success, attributing to their resilience.

4. *Being Part of a Working Team*: Being part of a working team amounted to teachers' belief that it had collectively reinforced their strength in handling problems.
5. *Experiencing Supportive and Caring Leadership*: Experiencing supportive and creative leadership gave teachers encouragement, strong support, and recognition, which helped them to build resilience.
6. *Experiencing Supportive Administration*: Experiencing supportive administration helped teachers to handle different situations, allowing them to build resilience against daily heavy workload.
7. *Having a Strong Mentoring Program*: Having a strong mentoring program positively promoted teacher resilience with the practical advice and emotional encouragement that the mentee teachers could have received. It helped teachers to grow, both professionally and personally.

Recommendations for Educational Practice

The recommendations presented here are based on findings of the study. Although the study was exploratory and interpretive in nature, its findings have provided implications for educational practice in schooling in Hong Kong. These implications are here clustered as follows: (1) recommendations for school teachers, leaders and administrators, (2) recommendations for teacher educators, and (3) recommendations for policy makers. While these recommendations are pertinent strictly to just the educational context of the study, they may also be read as considerations for other educational jurisdictions with similar structures, cultures and conditions.

Recommendations for School Teachers, Leaders and Administrators

Teachers Should Acknowledge the Dimensions of their Resilience

In the study of these EBC teachers within the SDS contexts, resilience was identified an asset for teachers as a moderator of their stress and possible burnout. Since an important part of that moderating effect involved teachers' self-awareness of its resilience dimensions, it is recommended that all the teachers become more aware of the dimensions that do and could enhance their resilience. In that way, teachers can use the dimensions as strategies, especially through: positive thinking and living, reflective thinking, minding ones' emotional and spiritual wellness, continually adapting and

improving oneself by engaging in continuous profession development, having a healthy life-style and work-life balance, proactively building networks for social and professional support, and appropriately and flexibly detaching oneself when necessary to minimise possible adverse impacts of stress that could have been avoided.

Leaders and Administrators Should Provide Strong Support to Teachers

On the other hand, in exploring the process through which teachers gradually became resilient, it was found that resilience dimensions could be learned from the experience of others ranges of experience, and that resilience required an administratively supportive environment by promoting working lives. Thus, school leaders and administrators should increase their awareness of how teacher resilience can be learned and improved through a supportive school environment with a supportive school administration. In this regard, the following specific recommendations are made to school leaders and administrators for developing a strong and supportive administration that can help establish, enhance, and sustain teacher resilience.

Ensure a Positive School Climate: School leaders and administrators can do a lot to maintain a positive school climate through practical measures such as restructuring school campuses and upgrading school facilities to promote positive relationships and collegiality, as well as to encourage positive actions and effective communications. They can also provide additional resources through administrative arrangements to encourage team teaching, collaborative lesson planning, mentoring, and peer coaching. In fact, in so doing, they would also be providing opportunities to develop supportive relationships among teacher colleagues.

Provide Supportive Leadership: Supportive leadership can facilitate open communication among teachers to share experiences and their insights, directing schools towards ultimately resilient schools. Supportive leaders are usually perceived as a resort to shoulder the heavy burden (both workload and role responsibility) of their fellow teachers while allowing teachers to remain focused on achieving their educational goals in the face of ongoing challenges, from both inside and outside the schools.

Encourage Teachers' Ongoing Professional Development: School leaders and administrators may encourage teachers in developing a lifelong learning attitude. Having such an attitude can enhance resilience through personal and professional

development and increasing responsiveness to new policy initiatives. Such lifelong learning engagement itself calls for the support of school leaders and administrators to ensure that sufficient resources, such as time (releasing teaching duties to facilitate on-the-job training) and funds (for training course fees and cost of employing supply teachers), are available.

Ensure Appropriate and Effective Mentorship: Good mentoring is supportive in building teacher resilience, especially in novice teachers who have just entered a new school environment. Strong and effective mentoring, though, requires a degree of sensitivity in mentor-mentee matching, mentors' capability and readiness, and a harmonious mentor-mentee relationship for sustaining the mentorship. School leaders and administrators, then, should be thoughtful and employ appropriate administrative measure when they introduce and practise mentorship in their schools. Measures to promote good mentorship may include the pairing or partnering of novice teachers with experienced teachers in subject panels; training to both mentor and mentee to make the mentoring program a success (such as training in communication and inter-personal and social skills); and the provision of sufficient time for mentors and mentees to meet and to engage.

Recommendations for Teacher Educators

Teacher education can contribute significantly to the building of teacher resilience. Although not all important dimensions of resilience may be learned or directly taught, if skills and strategies that enhance resilience can be embedded in teacher education curricula, teachers may be better prepared through teacher education to face the future challenges arising in their schools.

This study revealed the inadequacy of Hong Kong teacher education in developing resilience. It is therefore recommended that an appropriate and sufficient breadth and depth of resilience topics be included in the curriculum, not only to increase student teachers' awareness of resilience and its important function in moderating stress and burnout, but also to provide trainee teachers the opportunity to learn about the possible dimensions of resilience, and to develop strategies to cope with challenges when they start teaching. Such a strategy will help in combatting anticipated stress and possible burnout at the future.

A reform to teacher education curricula of this sort, though, would raise two immediate practical questions – what to teach, and how to teach – addressed here below.

What to Teach: To enrich the area of resilience in teacher education, the findings of the study point to the following teacher education curriculum components:

- Building personal resources such as motivation, social and emotional competence.
- Understanding ways to mobilise contextual resources like building relationships and support networks.
- Developing a range of adaptive coping strategies, like problem solving, time management, and communication.
- Managing challenges with a view to maximising teachers' adaptability and resilience with respect to their commitment, wellbeing, and engagement.

How to Teach: Introducing resilience topics – such as the skills of stress management, reflective thinking, positive thinking, cognitive-behavioural thinking, emotional regulation, and mindfulness – into the teacher education curriculum may best be done through embedding them into practical training and workshops.

The study identified the importance of learning resilience from experience. Thus the following experiential learning strategies may also be efficacious:

- Identifying and practising coping strategies, enhancing emotional competence and thinking skills through experiential activities or workshops.
- Directly experiencing teaching practice and authentic classroom observations with self-reflections and follow-up discussions.
- Learning from practical examples such as case studies and videos with scenarios for discussion and analysis.

Recommendations for Policy Makers

The moderate levels of stress and burnout and a relatively moderate to high levels of resilience identified in this study have important implications for policy makers in reviewing special education policy and, tentatively, also in mainstream schools. The following specific recommendations are suggested.

Ensure Low Class Size and Student-Teacher Ratios: In SDSs, the practice of a smaller class size and low student-teacher ratios contributed to teacher resilience. That policy may also be appropriate for mainstream schools in enhancing teacher resilience.

Minimise Examination-oriented Assessment: The lack of pressure of public examinations, especially on students' academic performance, contributed to teacher autonomy in the EBC teachers studied, giving them more opportunity to achieve the educational goals that they believed to be most appropriate. The implication here – for both SDSs and mainstream schools – is for maintaining and strengthening the focus on broader educational goals, such as those of developing lifelong learning and aiming for the holistic development of students.

Provide Adequate Resources for Teachers: The study found that workload and time pressure are the most important stressors for EBC teachers. That finding may also have pertinence to mainstream school teachers. It identifies the importance of making adequate resources available to moderate teachers' workload, reduce their time pressure, and hence to build their resilience.

This also suggests the value of direct support in promoting teacher resilience through increasing government financial resources to promote public recognition. There may also be the opportunity to invite patronage for resilience projects in schools from the public, the business sectors and local charities or communities. Such projects could heighten public awareness of the importance of resilience in education, while increasing funding to drive resilience projects in schools.

Suggestions for Future Research

The focus of this study on EBC teachers in Hong Kong SDSs raises the question of the extent to which the experiences in other schools in Hong Kong are similar to or different from those of the teachers involved in this study.

It raises also the question of the extent to which the findings of this study are pertinent to other educational contexts and jurisdictions internationally.

The qualitative component of this study was limited to the experiences of 11 resilient teachers in SDSs. While it has provided considerable insights into the dimensions of resilience in teaching EBC students, further studies may identify additional strategies for enhancing teacher resilience and more firmly ground the

findings drawn from this study by examining their effectiveness in different school contexts and education sectors.

Each of the dimensions of resilience identified in this study may also be seen as warranting further research attention to enlarge our understanding of their particular nature and importance.

It would be also insightful for future studies to examine resilience in a cross-cultural perspective. This is an emerging issue calling for increasing attention in Hong Kong, where local schools have a noticeable number of non-Chinese speaking student enrolments. Indeed, the increasing population of new youth immigrants from mainland China who enter into Hong Kong's education school system but speak a different language dialect (specifically Mandarin rather than the prevailing Cantonese spoken in Hong Kong), together with the differences in local and regional cultures posed yet another challenge to teacher resilience in the light of the growing complexities in cross-cultural contexts.

Each of these questions and considerations may be seen as pointing to valuable future research trajectories flowing from this study.

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Appendix A: EBC Teachers Stress, burnout and resilience Questionnaire

EBC Teachers Stress, burnout and resilience Questionnaire

This questionnaire is divided into sections which contain statements about work situations and personal perceptions on stress, burnout and resilience.

Please begin by completing your ratings for the following sections of questions, then complete the individual data form on the last page. A small gift will be given to you to extend my thanks for your participation and contribution.

Directions:

Read each statement carefully.

For each statement, tick the box that fits you best.

I) Teacher Stress

Please rate your level of stress from 1 to 4 by ticking the appropriate boxes

Factor 1: Stress induced by Student Misbehaviour

	I feel stressed when I need to...	none	little	strong	very strong
		1	2	3	4
1	...monitor students' behaviour.				
2	...face students' general low standard.				
3	...face students' poor attitude to learn.				
4	...face students' impolite behaviour.				
5	...be responsible for students' conduct.				
6	...maintain class discipline.				
7	...face and handle noisy class.				
8	...face students with emotional and behavioural challenges.				

Factor 2: Stress induced by Professional Recognition

	I feel stressed when I am NOT able to have ...	none	little	strong	very strong
		1	2	3	4
9	...feedback on my personal performance				
10	...high status of teaching profession				
11	...the power of influencing educational policy				
12	...time for further study				
13	...participation in decision-making				
14	...recognition and respect from the public				
15	...sense of achievement				

Factor 3: Stress induced by School Ethos

	I feel stressed when I ...	none	little	strong	very strong
		1	2	3	4
16	...find the school have loose disciplinary policy				
17	...learn the negative attitudes of my colleagues				
18	...hold different ideas from the administrators				
19	...find the school does not have effective consultation system for us.				
20	...find there is a lack of co-operation among staff				

Factor 4: Stress induced by Workload and Time Pressure

	I feel stressed when I...	none	little	strong	very strong
		1	2	3	4
21	...lack of time for preparing lessons				
22	...spend too much time on committee meeting				
23	...have too much work to do				
24	...find the pace of school day is too fast				
25	...have not enough time to do the work				
26	...lack of time for marking				
27	...lack of time to spend with individual student				
28	...have to spend too much time to work after school				

II) Maslach Burnout Inventory-Educator Survey (MBI-ES)

Below are the descriptions of some feelings and attitudes held by teachers related to teaching. Please tick the appropriate boxes to indicate your own situation.

1 = never

2= occasionally (once a week)

3 = frequently (a few times a week)

4= very frequently (most of the week)

		1	2	3	4
1	I feel emotionally drained from teaching				
2	I feel used up at end of the working day				
3	I feel fatigued in getting up				
4	I can easily understood student's feelings				
5	I feel treating students as impersonal objects				
6	I feel strained from working with people				
7	I can effectively dealt with students' problems				
8	I feel burned out from teaching				
9	I can positively influence on others' life through teaching				
10	I become callous towards people from being a teacher				
11	I worry about getting hardened emotionally by my job				
12	I feel energetic				
13	I feel frustrated by my job				
14	I feel I am working too hard at my job				
15	I do not care what happen to students				
16	I feel stressed in directly working with people				
17	I can easily create relaxed atmosphere with students				
18	I feel exhilarated after working closely with students				
19	I can accomplish worthwhile things in my job				
20	I feel I am at the end of rope				
21	I can deal calmly with emotional problems in work				
22	I feel blamed by students for problems				

III) Teachers' Sense of Efficacy Scale

Please indicate your opinion about each of statement below by ticking the appropriate response.

	I am able to ...	1 Very little	2 Some influence	3 Quite a bit	4 A great deal
1	...control disruptive behaviour in the classroom effectively				
2	...motivate students who show low interest in school work				
3	...get students to believe they can do well in school works				
4	...help students to value learning				
5	...craft good questions for students				
6	...get students to follow classroom rules				
7	...calm a student who is disruptive				
8	...establish a classroom management system with students				
9	...use a variety of assessment strategies				
10	...provide an alternative explanation or example when students are confused				
11	...assist families in helping their children do well in school				
12	...implement alternative strategies in your classroom				

IV) Resilience Scale

Please tick the appropriate boxes to indicate your reaction.

“How do I react to unexpected difficulties?”

1= rarely, 2= sometimes, 3= often, 4= very often

		1	2	3	4
1	I calm myself and focus on taking useful actions in a chaotic situation.				
2	I am optimistic as I see difficulties as temporary and expect to overcome them.				
3	I can tolerate high levels of ambiguity and uncertainty about situations.				
4	I adapt quickly to new developments.				
5	I can find humour in rough situations.				
6	I am able to recover emotionally from losses and setbacks.				
7	I feel self-confident.				
8	I am curious.				
9	I learn valuable lessons from my experiences and from others.				
10	I am good at solving problems.				
11	I am good at making things work well.				
12	I am flexible.				
13	I am always myself.				
14	I prefer to work without a written job description.				
15	I read people well and trust my intuition.				
16	I am a good listener.				
17	I am non-judgmental about others.				
18	I hold up well during tough times.				
19	I have converted misfortune into good luck.				
20	I have been made stronger by difficult experiences.				

V) Collective Teacher Self-efficacy

Please tick the appropriate boxes to indicate your situation in school.

1= not at all true, 2= almost not true, 3= moderately true, 4= completely true

	Teachers in my school are able to...	1	2	3	4
1	...reach difficult students as we are all committed to the same educational goals.				
2	...establish innovative approaches to education even when faced with setbacks.				
3	...guarantee high instructional quality even when resources are limited.				
4	...achieve educational goals because we stick together and do not get demoralized by the day-to-day hassles of this profession.				
5	...come up with creative ways to improve the school environment, even without support from others.				
6	...accomplish something positive at school since we are a competent team of teachers that grows every time we are challenged.				
7	...learn from our mistakes and setbacks in the classroom as long as we trust our shared competence.				
8	...improve the instructional quality of our school in spite of system constraints.				
9	...develop and carry out educational projects in a cooperative manner even when difficulties arise.				
10	...to lay out our educational goals in a convincing manner to even the most difficult parents because we present ourselves as a cohesive and competent team of teachers.				
11	...create a positive school climate through our shared efforts, even if this causes a tremendous workload for us.				
12	...deal effectively with even the most critical events because we are able to draw upon the social network that exists within our school.				

Individual Data Form

Please read each item and respond as indicated. Your participating in this study is entirely voluntary; therefore, by responding to this form, you are agreeing to participate in this study. Your answers are confidential and coded by number.

1. Your current age: 20-30 ____ 31-40 ____ 41-50 ____ 50 + ____

2. Gender: Female ____ Male ____

3. What is your current teaching level?

Primary ____ Secondary ____ Post-Secondary ____ (Mark all that is applicable)

4. Total years of experience in teaching: ____ (Mark all that is applicable)

Years teaching in Special Education: ____

Years teaching in General Education: ____

Years teaching Students with Emotional and Behavioural Challenges (EBC): ____

Rate each of the following on a scale of 1-5:

(1= the lowest amount of stress, 5= the highest amount of stress)

5. The level of your total job-related stress as a teacher of the (EBC) students: ____

6. The level of total stress in your life at this time: ____

7. The level of stress you have encountered throughout your life: ____

Thank you so much! I appreciate your time and effort in filling out this questionnaire. If you would like to elaborate or make any comments or suggestions, please write them below.

Call for Volunteer:

The second stage of this study is to investigate factors and strategies that enhance teacher resilience. If you are EBC teacher who have experience like: facing adversity; under stress; nearly burnout; and or having the resilience/ bounce back experience. I am here whole-heartedly inviting you to help by joining an in-depth interview to share.

Please leave your contact below if you are willing to help:

Name: _____

E-mail: _____ Mobile/ Phone: _____

Thanks Again!!!

Appendix B: Covering Letter of the Study

UNE

University of
NEW ENGLAND

● **School of Education**

ARMIDALE NSW Australia 2351
Telephone (61 2) 6773 3831/6773 3716
Facsimile (61 2) 6773 2445
Email: hosedu@une.edu.au

Date

Dear teacher,

I am inviting you participate in a research project that is investigating the stress, burnout and resilience levels of the teachers who teach students with Emotional Behavioural Challenges (EBC) in Hong Kong. Along with this letter is a short questionnaire that asks a variety of questions about stress, burnout and resilience.

I am asking you to look over the questionnaire and, if you choose to do so, complete it and send it back to me with the prepaid envelop. It should take you about 20-25 minutes to complete.

I hope that the results of this study will help gain a better understanding of issues associated with teaching students with EBC and in time help teachers to be more resilient. I plan to share the results of this study with teachers and schools by publishing the findings in a local Hong Kong teaching journal.

I am unaware of any risks to you in filling out these questionnaires, which have been used in similar studies in other countries. If you decide to participate by filling in these surveys I guarantee that your responses will not be identified and no name of participants or their schools will be used in any documentation. That is, your responses will be completely confidential and known only to the researchers involved in this study, and all data files safely stored in the privacy of the researcher's home office and will be destroyed no later than 5 years after the completion of the study.

If you have any questions or concerns about completing the questionnaire or about being in this study, you may contact me at 852-2948 7586, or e-mail to benloik@ied.edu.hk. This project has been approved by the Human Research Ethics Committee of the University of New England, New South Wales, Australia.

Thanking you for your co-operation.

Yours Sincerely.

Brenda Lo
PhD Candidate of UNE
Senior Teaching Fellow, HKIED

Appendix C: Information Sheet and Consent Form

UNE

University of
NEW ENGLAND

School of Education

ARMIDALE NSW 2351
Telephone (61 2) 6773 3831/6773 3716
Facsimile (61 2) 6773 2445
Email: hosedu@une.edu.au

Information Sheet for Participant

Title of Project:

“Stress, burnout and resilience of Teachers of the Emotional Behavioural Challenges students in Hong Kong.”

Researcher: Ms Lo Lai Kuen, Brenda (PhD candidate of University of New England, Australia)

Purpose of Study:

The main aims of this study are to examine the stressors and burnout levels of the teachers of students with Emotional Behavioural Challenges (EBC teachers) and the relationship with individual and organisational resilience.

Procedures Involved in this Study:

This study will have two stages. In stage one, a set of self-reported questionnaires is developed specifically to check the conditions of stress, burnout and resilience of the EBC teachers in Hong Kong. The second stage of the study is in-depth interviews. Semi-structured in-depth interviews will be conducted with the participants invited from the questionnaire respondents (they will show their interest in participating in the study and shown that they have the experience of resilience from stress and burnout). Resilient factors identified, as salient from these interviews will be examined in greater detail.

Time Commitment:

The time required for completing the questionnaire will be about 20-25 minutes, and the in-depth interview will not be longer than an hour.

Explanation of Procedures and Risks:

It is unlikely that this research will raise any personal or upsetting issues to you the teachers involved, as the questionnaires have been used in a number of international studies that have also investigated teacher stress, burnout and resilience. If you should, however, have any concerns after filling in the surveys it does, I as the researcher can refer you to relevant free counselling services located in Hong Kong (see details below).

Changing Your Mind about Participation:

Each participant is free to withdraw his or her involvement at any time and to have any of the information that they have provided withdrawn from use in the study.

Confidentiality:

All information provided by participants will be treated in strict confidence. It will be stored securely. It will have any identifying content removed and will be coded, with the coding stored separately and securely. The information will only be used in reports from the project in such a way that neither the participant nor their work or study location could be identified by anyone other than themselves.

Contact Information:

Should you like more information of this project, please contact the researcher, Ms Lo Lai Kuen, Brenda (852-2948 7586 or Email benloik@ied.edu.hk or blo@une.edu.au), or Professor Ian Hay my supervisor at the University of New England. His details are on the letterhead.

This project has been approved by the Human Research Ethics Committee of the University of New England (Approval No. HE 07/228, valid to 28 Jan 2009)

*Should you have any complaints concerning the manner in which this research is conducted, please contact the Research Ethics Officer at the following address:
Research Services*

University of New England

Armidale, New South Wales, Australia 2351.

Telephone: (61 2) 6773 3449 Facsimile (61 2) 6773 3543

Email: Ethics@une.edu.au

Thanking you for your co-operation

Ms Lo Lai Kuen, Brenda
PhD Candidate of UNE

The following organisations provide counselling services to help teachers handle emotional and behavioural disturbances which in turn fulfils the objective of enhancing one's mental health and ability to adjust to life changes.

They also provide clinical psychological service to people with problems in emotion, behaviour, personality or social relationship. People suffering from mental illness are also their target of service. The services include: 1. Intellectual/Psychological assessment; 2. Psychological treatment; 3. Consultation service.

Service is subsidised by the government and some are free of charge.

<p>● Hong Kong Christian Service, Yau Tsim IFSC, Clinical Psychological Service Address: 2/F., 33 Granville Road, Kowloon, Hong Kong. Tel: 852-2731 6227 Fax: 852-2724 3520 e-mail: familynet@hkcs.org Opening Hours<u>開放時間</u></p> <table> <tr> <td>Mon & Wed</td> <td>9:00am ~5:00pm</td> </tr> <tr> <td>Tue, Thur & Fri</td> <td>9:00am~ 9:00pm</td> </tr> <tr> <td>Sat</td> <td>9:00am~5:00pm</td> </tr> </table> <p>Sundays and public holidays closed</p>		Mon & Wed	9:00am ~5:00pm	Tue, Thur & Fri	9:00am~ 9:00pm	Sat	9:00am~5:00pm
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Sat	9:00am~5:00pm						
<p>● Yang memorial Methodist Social Service, Mongkok IFSC Address: G/F., Central Commercial Tower, 736 Nathan Road, Mongkok, HK. Tel: 852-2171 4001 Fax: 852-2388 3062 e-mail: ifsc@yang.org.hk Opening Hours<u>開放時間</u></p> <table> <tr> <td>Mon & Wed</td> <td>9:00am ~5:00pm</td> </tr> <tr> <td>Tue, Thur & Fri</td> <td>9:00am~ 9:00pm</td> </tr> <tr> <td>Sat</td> <td>9:00am~12:00noon</td> </tr> </table> <p>Sundays and public holidays closed</p>		Mon & Wed	9:00am ~5:00pm	Tue, Thur & Fri	9:00am~ 9:00pm	Sat	9:00am~12:00noon
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<p>● Teachers' Helpline, Hong Kong EDB Support teachers and principals to cope with work-related pressure by providing telephone counselling, face-to-face counselling and arrange for professionals to follow up cases. Helpline: 852- 2892 6600 Service hours: 8:00 AM to 8:00 PM daily</p>							

CONSENT FORM

UNE

University of
NEW ENGLAND

School of Education

ARMIDALE NSW 2351
Telephone (61 2) 6773 3831/6773 3716
Facsimile (61 2) 6773 2445
Email: hosedu@une.edu.au

CONSENT FORM

I (the participant) have read the information contained in the Information Sheet for Participants and any questions I have asked have been answered to my satisfaction. I agree to participate in this activity, realising that I may withdraw at any time. I agree that research data gathered for the study may be published, provided my name is not used.

.....

Participant

.....

Date

.....

Investigator

.....

Date

Appendix D: In-depth Interview Interviewee Consent Form

UNE

University of
NEW ENGLAND

School of Education

ARMIDALE NSW 2351
Telephone (02) 6773 3831/6773 3716
Facsimile (02) 6773 2445
Email: hosedu@une.edu.au

Research Consent Form (In-depth Interview)

Date

I, _____ (full name) am a teacher of the students with Emotional Behavioural Challenges (EBC). In signing this consent form, I agree to volunteer in the research project being conducted by Ms Brenda Lo, the PhD candidate of the School of Education of the University of New England, Australia between the months of March and May of the year of 2008.

I understand that the research being conducted relates to the experiences of stress, burnout and/or resilience of the teachers of EBC students. I understand that excerpts from the written transcripts of the tape-recorded verbal communications with the researcher. These quotes will be located in a doctoral dissertation and in future papers and journal articles that will be written by the researcher. I understand that no names of teachers being interviewed or the names of their schools will be included in any documentation. I understand that if I request I can have a copy of the tape of my interview and the transcript of my interview.

I grant authorisation for the use of the above information with the full understanding that my anonymity and confidentiality will be preserved at all times. I understand that my full name or other identifying information will never be disclosed or referenced in any way in any written or verbal context. I understand that transcripts, both paper and CD Rom versions, will be secured in the privacy of the researcher's home office and that any audio tapes of my conversations with the researcher will be erased no later than 5 years after the completion of the study.

I understand that my participation is entirely voluntary and that I may withdraw my permission to participate in this study without explanation at any point up to and including, the last day of the interviews.

I grant permission to audio taping the interview and to use one of the following to represent me:

_____ My first name only

_____ Only a pseudonym

Signature

Date

Appendix E: Interview Protocol

Resilient EBC Teacher Interview Protocol

Interview Questions: (45-60mins)

About Individual

Name I can call you in this interview: _____

- Can you give me a brief summary of your teaching career/experiences?

Age: _____ Sex: _____ Total Year of Teaching Experience: _____

How long have you been teaching EBC students? : _____

How long have you been teaching in this school? : _____

- How do you feel usually at the end of a school day?
- What are some of the day to day stress that you face teaching in this type of school? (EBC school)
- Do you have any regrets about some of the things that had happened here?
- Tell me about a few of the most stressful incidents you have experienced teaching here. How did you handle them?
- How do you feel usually at the end of the school term like now?
- Have you ever thinking of “quit” this job? If then, what make you stay?
- Since you have been teaching here, is there anything that you feel practically proud of?
- What are your main sources of support? Who do you most talk to?
- Have your ever hear about the term “Resilience”? How do you interpret this term?
- Do you think you are a resilient person? What make you think you are?
- On a scale from 1 (very low) to 10 (very high), how would you describe your level of resilience? _____
- What strategies do you, personally, use to stay positive during difficult times? (Tell me some of the strategies you use to be resilient?)
- Give me an example when you had to face a tough professional challenge and had to be resilient. What did you do?
- Do you talk to yourself? What do you say?

- Where do you draw support and strength?
- Do you think Resilience can be trained & learnt? How?

About the School

- Tell me about your work at this school.
- Describe this school. What is it like? (Environment, climate, facilities, people, and ...etc.)
- Describe the interactions that take place here (e.g. with students, colleagues, parents).
- How does the school function? Any suggestion?
- What advice would you give to a new teacher who is thinking of applying in this school?
- Any suggestions to develop/ improve/ maintain Resilience?
- Any suggestions to the school?
- Any suggestions to the Policy Maker/EDB?
- Any suggestions to this research?

Thanks for your participation.

Appendix F: Ethics Approval



RESEARCH SERVICES

Armidale NSW 2351 Australia
Telephone (02) 6773 2070, Fax (02) 6773 3543

HUMAN RESEARCH ETHICS COMMITTEE

MEMORANDUM TO: Prof I Hay, Dr R Callingham & Ms B Lo
School of Education

This is to advise you that the Human Research Ethics Committee has approved the following:

PROJECT TITLE: The relationship of stress, burnout and resilience of teachers of the Emotional Behavioural Challenges students in Hong Kong

COMMENCEMENT DATE: 28/01/2008

COMMITTEE APPROVAL No.: HE07/228

APPROVAL VALID TO: 28/01/2009

COMMENTS: Nil. Conditions met in full.

The Human Research Ethics Committee may grant approval for up to a maximum of three years. For approval periods greater than 12 months, researchers are required to submit an application for renewal at each twelve-month period. All researchers are required to submit a Final Report at the completion of their project. The Progress/Final Report Form is available at the following web address: <http://www.une.edu.au/research-services/forms/hrecfinalreport.doc>

The *NHMRC National Statement on Ethical Conduct in Research Involving Humans* requires that researchers must report immediately to the Human Research Ethics Committee anything that might affect ethical acceptance of the protocol. This includes adverse reactions of participants, proposed changes in the protocol, and any other unforeseen events that might affect the continued ethical acceptability of the project.

In issuing this approval number, it is required that all data and consent forms are stored in a secure location for a minimum period of five years. These documents may be required for compliance audit processes during that time. If the location at which data and documentation are retained is changed within that five year period, the Research Ethics Officer should be advised of the new location.

15/01/2007

Jo-Ann Sozou
Secretary