Expecting More:
Relations Between Teacher Expectations, Teacher Emotions, and Student Self-Concept Outcomes

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Abstract

Although studies of teacher expectations, teacher emotions, and student self-concept have flourished in the past several decades, little is known about how these three factors are associated with each other. However, teacher beliefs and emotions are both significant in influencing teaching practices and students' outcomes, and student self-concept also plays a critical role in student overall development. Therefore, this doctoral project aimed to explore the interplay of teacher expectations and teacher emotions, and the role of teacher expectations in the development of student academic and non-academic self-concept.

This doctoral thesis consisted of three studies in the context of the Chinese high school. In Study 1, questionnaires were collected from 135 Chinese homeroom teachers from 14 high schools. The structural equation modelling showed that positive emotions increased as teacher expectations increased, and negative emotions decreased when teacher expectations were higher. The results suggested that teachers might improve their emotional experiences by developing more positive expectations for their students. In Study 2, 12 interviews were conducted with teachers from different expectation groups to further explore how teacher expectations could explain the variance in their emotions. Interview results revealed that teachers with different levels of expectations seemed to vary in their perceptions of the teacher–student role in education and revealed variations in their emotional strategies, teaching approaches, and their use of contextual resources. Finally, by collecting two time points of students' self-concept data from 348 students, Study 3 investigated the predictive role of teacher expectations in some student self-concept outcomes, including both academic and nonacademic constructs.

Consequently, this doctoral project explored teacher expectation effects in relation to both teacher experiences and student outcomes. This thesis provided significant contributions and insights into how teacher expectations might contribute to teachers' emotional experiences and student self-concept, which could be then used for subsequent sociopsychological research and teacher professional development. The findings suggested that teachers should be facilitated to be more aware of their expectations and high-expectation principles, with the aim of preventing the detrimental effects of low expectations.

Dedication

I dedicate this work to my parents and my amazing supervisors, who supported me to make every stumble as a part of the dance.

Acknowledgments

Throughout my three-year journey, I have received numerous forms of support and assistance. Doing PhD research during the COVID-19 pandemic, I felt especially privileged to have been surrounded by a group of friends, family, and colleagues who experienced all the ups and downs with me (though we had to chat online most of the time and our relationships largely relied on internet quality). Therefore, this is an excellent chance to express my gratitude to those who contributed to this doctoral project.

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List of Abbreviations

CABI	Child Adaptive Behavior Inventory
CF	Consent Form
CFA	Confirmatory factor analysis
CFI	Comparative fit index
HiExTs	High-expectation teachers
HTs	Homeroom teachers
LoExTs	Low-expectation teachers
MeExTs	Medium-expectation teachers
PIS	Participation information sheets
RMSEA	Root mean square error of approximation
SC	Self-concept
SDQ	Self-Description Questionnaire
SEM	Structural equation modelling
TE	Teacher expectations
TEQ	Teacher Emotion Questionnaire
TES	Teacher Emotions Scales
TLI	Tucker-Lewis index
TOGA	Test of General Ability
UAHPEC	University of Auckland Human Participants Ethics Committee

Chapter 1: Introduction

This doctoral project was driven by personal as well as research interests in teacher beliefs, teacher emotions, and student self-concept development. At a personal level, as a former homeroom teacher in a Chinese high school, I perceived the pivotal role of teacher emotions and teacher expectations in teaching and learning, especially for homeroom teachers who share an intimate bond with their students and other stakeholders in schooling. However, as with most of my colleagues, I was overwhelmed with an excessive workload and the emotionally charged atmosphere related to this position. Compared to the ongoing professional development we received to improve pedagogical strategies and student academic achievement, teachers' negative emotions were more likely to be "an elephant in the room"—which is weighty but not remarked upon and mostly ignored.

On a research level, most existing explorations of these psychological factors (e.g., teaching beliefs, teacher emotions, and student self-concept) have mainly been conducted in Western contexts and at lower school levels, for example, early years in primary schools. To investigate how these factors interact in the context of Chinese high school homeroom teachers, I started this research journey in 2019 after I finished my master's research which explored the sources of homeroom teachers' professional vulnerability. Drawing upon the working journal and interview data from seven Chinese homeroom teachers, my master's study revealed the intricate relations between teacher emotions and their beliefs. These findings motivated me to further investigate how teacher expectations would predict teacher emotions, and subsequently result in different student outcomes.

As this thesis will discuss, previous literature has alluded to the relations between teacher beliefs and emotions (Frijda & Mesquita, 2000), both of which are important in influencing teaching practices and students' outcomes (Arens & Morin, 2016). As one construct of teaching beliefs, teacher expectations have been found to be influential in students' academic achievement and behaviours, nevertheless, little attention has been paid to its relations with emotions (S. Wang et al., 2018). Given the role of teacher expectations and emotions in education, it is of value to investigate how these two influential factors are related. In addition, teacher expectation effects have been largely explored in relation to student academic outcomes, with a limited number of studies attending to student self-concepts, despite their key role in student development (S. Wang et al., 2018). Therefore, this thesis particularly focused on teacher expectation effects on both teacher emotions (which has not been explored to my knowledge) and student self-concept to complement existing teacher

expectation research. Furthermore, compared to the vast number of studies on Western teacher expectations, teacher emotions, and student self-concept, insufficient efforts have been directed towards Chinese teachers and students. Specifically, little has been done to explore the experience of Chinese homeroom teachers, whose commitments are multidimensional and whose overall portrait, emerging from the literature, is of a stressful occupation. Considering that teacher expectations, teacher emotions, and student self-concept development might vary between cultural contexts, it is of interest to explore these factors further in the Chinese context.

It is for these reasons, along with my personal experiences, that I decided to explore teacher expectation effects not only in the high school student context but also in terms of teachers' own emotional experiences. In particular, this research explored whether and how teacher expectations might predict their emotions and student self-concept respectively. To achieve this, this doctoral project employed a mixed-methods explanatory research design which involved three studies.

Following this chapter (Introduction), Chapter 2 reviews the current literature on key factors explored in this project (teacher expectations, teacher emotions and student self-concept), and how these three factors interact within the overall framework of teacher expectation effects. As will be elaborated in Chapter 2, previous studies on the significant role of teacher emotions in students' learning and achievement outcomes has been flourishing (H. Wang et al., 2019). By integrating the teacher expectation framework with emotion theories (e.g., Frenzel, 2014; Scherer, 2004), the literature review showed the fluid nature of emotions and the possible predictive role of personal emotional experiences. However, despite empirical evidence on the associations between teacher emotions with self-efficacy (Taxer & Frenzel, 2015) and teacher identities (Nichols et al., 2017), whether teacher emotions are related to teacher expectations is not yet understood. This constituted a gap that this project aimed to fill. Instead, existing teacher expectation literature has mainly focused on the predictive role of teacher expectations in instructional strategies and learning outcomes, and debates have been sparked regarding how teacher expectations are related to student self-concept (S. Wang et al., 2018). Given that student self-concept is a strong predictor of their outcomes and serves as a possible lever for further changes (Ogle et al., 2016), it is worthwhile to further explore teacher expectation effects on student self-concept in different contexts. These findings rationalised this doctoral research to investigate the relations of teacher expectations with their emotions and student self-concept, with the aim to contribute to social-psychological theory and help teachers perceive their role in handling

these factors in their teaching practices instead of being passive bearers. Chapter 2 concludes with the main research questions that are addressed in the three studies underpinning this research, which comprise Chapters 3, 4 and 5.

Chapter 3 presents the first study that drew upon questionnaires to explore the relations between teacher expectations and teachers' emotions. In particular, confirmatory factor analyses were used to test data-to-theory fit. A structural equation model was subsequently employed to test how teacher expectations predicted teachers' positive and negative emotions with a sample of 135 homeroom teachers from 14 Chinese high schools.

Following on from the first study, Chapter 4 presents the second study, which utilised and elaborated on the findings of Study 1 to enhance understanding of the way in which teachers perceived that their expectations were related to their emotional experiences with regard to their daily instructional practices. Using thematic analysis techniques, teachers' reactions to different scenarios and underlying explanations were explored. The results of Study 2 were also used to complement and explain the findings of Study 1 and the subsequently presented Study 3.

As presented in Chapter 5, Study 3 measured student self-concept at two time points from 348 students in the homeroom classes of earlier teacher participants. Confirmatory factor analyses and a structural equation model were used to investigate the relations between teacher expectations and different student self-concept constructs.

The final chapter, Chapter 6, discusses the findings from all three studies and examines why and how this doctoral research provides significant contributions and insights into areas of social-psychological research. A brief revisit of the three studies is presented in that chapter, followed by a general discussion of the findings. Then, the theoretical contributions, practical implications, the limitations of this thesis, and future research directions are presented.

Chapter 2: Literature Review

The current chapter rationalises the research aims and questions underpinning this doctoral project, by making reference to the existing and seminal body of literature about teacher expectations (TE), teacher emotions, and student self-concept (SC), and discusses the theoretical and empirical frameworks that were used in this project. In doing so, this thesis can then be contextualised as part of the existing research areas, as well as create links between what has been completed in the past, and what is being undertaken in the current project.

In particular, this doctoral project investigated three research areas in educational and social psychology that have been underexplored within the international literature and within the Chinese high school context. To be specific, the researcher aimed to explore the relations between three naturally occurring psychosocial latent constructs within the context of Chinese homeroom teachers (HTs) and high school students, namely, TE, teacher emotions, and student SC. Therefore, the following literature review will examine the current theoretical and empirical research related to these three constructs.

This literature review consists of four interrelated sections. Firstly, in order to provide international audiences with a better understanding of the contextual background, there is a brief profile of the Chinese HT system and the context of Chinese schooling where this doctoral project was located. This section also involves some recent research about Chinese HTs' emotional experiences. The second part of this chapter will then introduce different theories related to the concept of TE, their emotions and student SC, which aims to locate the study within the existing theories and specific context. The third, and major, part of this chapter will then focus on previous findings on the relations between teacher beliefs, emotions, and student outcomes. In presenting these studies, it will be shown that existing studies have alluded to the relations between these variables although little empirical research has been conducted to show how, and to what degree they are related, let alone taking account of Chinese HTs' perspectives. This constitutes one important rationale for this project because it is important to take the perspective of HTs into consideration, not only to contribute to the existing theoretical frameworks of teacher beliefs and emotions but also in relation to the educational system in both China and other contexts with parallel HT systems. To do so, the argument that TE, their emotions, and student SC might be related will be revisited and further discussed. This section is followed by a discussion of the limitations of the existing research, along with the scope of this doctoral project and the research questions.

2.1 A Profile of the Chinese Homeroom Teacher System

China has long adopted an HT system, where students study in the same homeroom class with their classmates (around 40–60 students) and typically have the same HT for several years (P. Liu et al., 2018). As shown in McNaughton and Li (2021), Chinese students are grouped into mixed-ability classes at the beginning of primary school (Grades 1–5), middle school (Grades 6–9), and senior high school (Grades 10–12). As a key role in the homeroom class structure, Chinese HTs' position has functional parallels in other countries (e.g., France and the United States) in which some staff (e.g., counsellors) are responsible for noninstructional duties in schooling (Z. Zhao, 2014). Nevertheless, as elaborated below, the commitments of Chinese HTs go well beyond what is expected from their counterparts in Western schooling (e.g., the US; P. Liu et al., 2018). To show what is specific and unique to the HTs' role in the Chinese context, the following sections begin with HTs' main commitments and appointment before moving on to their current dilemma related to their emotional experiences and professional development.

2.1.1 Main Commitments and Responsibilities of an HT

As an essential position in Chinese schooling, the job description of HTs is highly ambiguous but HTs are expected to play multiple roles from "instructor" to "counsellor" to "friend" (J.-Q. Liu, 1997; Z. Zhao, 2014). As suggested by G. Wang (1997), HTs generally serve as:

> a bridge between the school, family, and society; a leader, organiser, and manager of one class who is the main teacher to carry out national educational policy, is an effective aid to school leaders who carries out educational and teaching plans in schools, and promotes all-round student development. (p. 87)

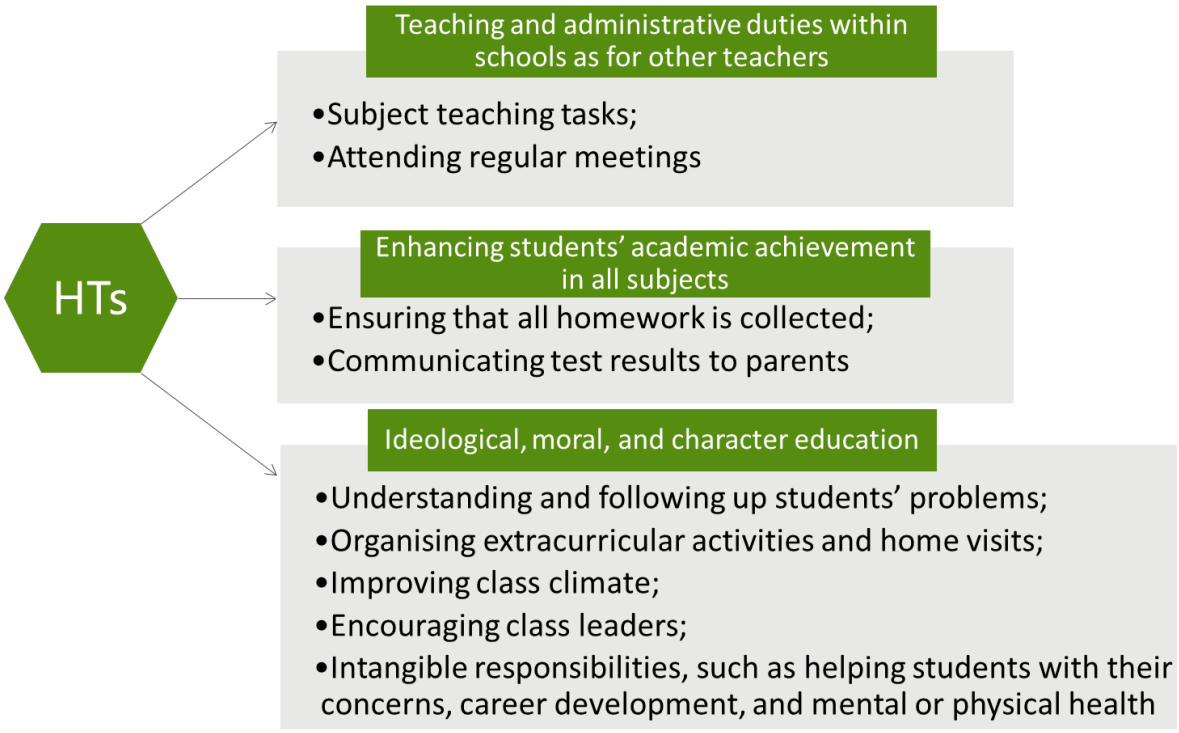
Compared to regular teachers who teach only one subject, HTs shoulder greater responsibility for students' behaviour, academic performance in all subjects, mental health and all-around development by having a close, day-to-day interaction with students in their homeroom class (S. Liu & Hallinger, 2018; Shi et al., 2014). There are no specific working hours for HTs, because they are expected to spend time with their students together on and beyond campus where they can carry out all their activities either in the class or based on the class (P. Liu et al., 2018). That is, what exactly constitutes HTs' commitments, how long they should work, and the degree to which they should be responsible for students is open to interpretation. Based on a literature search, this thesis largely classifies HTs' main commitments into three key areas (see Figure 2.1). It is worth noting that the tasks listed in

Figure 2.1 exemplify HTs' commitments, but their actual workload goes far more beyond what is indicated. Firstly, HTs have a function as subject teachers (e.g., subject teaching and marking) and take on the same administrative duties as other regular teachers, which is different to what might be expected of traditional counsellors in Western educational contexts. Secondly, HTs are responsible for students' overall academic achievement, which involves a duty to coordinate with all subject teachers and parents of their homeroom class. For example, HTs are required to arrive earlier than subject teachers every morning to ensure that all homework has been collected and sent to the respective offices on time. Once the examination results are released, HTs interpret each student's scores in all subjects and communicate with subject teachers and parents to find out how students could improve their learning. As such, compared to regular teachers who teach only one subject, HTs shoulder more responsibility for students' learning in all subjects by having more intensive teacher–student and teacher–parents interactions (Shi et al., 2014). Finally, pastoral care as well as moral and character education constitute the third part of HTs' commitments (Lo, 2001). This aspect includes considerable responsibilities, such as addressing students' personal concerns and taking care of their mental health (S. Liu & Hallinger, 2018). After spending a long time together, the HT and the homeroom class students share an irreplaceably close relationship and make a difference together in the development of the class community (P. Liu et al., 2018). That is, Chinese HTs not only spend more time with their students in school than any other teachers, but also play a more comprehensive and important role in students' overall development than do subject teachers.

The commitments described above reveal that Chinese HTs are likely to have a deep connection with their students and play a critical role in supporting them alongside other daily operational responsibilities within the school. Also, HTs' commitments imply a substantial workload, particularly in Chinese public high schools where a homeroom class comprises around 40, 50, or even 60 students (P. Liu et al., 2018). In sum, given the crucial role of HTs in students' overall development, exploring the research questions through the lens of this group made it possible to investigate not only TE effects on students' academic SC but also on their nonacademic SC. Additionally, as indicated above and detailed below, the heavy workload and pressured emotions embedded in this position contribute to the importance of this research in exploring the relations of HTs' emotions with their TE.

Figure 2.1

HTs' Main Responsibilities and Commitments



2.1.2 Appointment and Shortage of Chinese HTs

Chinese HTs are selected from the regular teaching staff by principals. However, despite policies implemented to encourage teachers to take up this position (such as additional remuneration and opportunities for promotion), schools face the challenge of recruiting and retaining qualified HTs (Z. Zhao, 2014). The potential causes for these challenges have been underexplored in previous literature, despite frequent complaints about the imbalance between HTs' workloads and rewards (S. Liu & Onwuegbuzie, 2012). Nevertheless, whether the HT shortage can be totally attributed to structural factors (such as low salary and heavy workloads) remains a question, which calls for further exploration related to other influences such as their emotions and work experience. Whereas the topic of the source of HTs' negative experience is beyond the scope of this doctoral project, by evaluating the level of HTs expectations and emotions and exploring the patterns between these two factors, the current research could work as a foundation for future research providing practical strategies for HTs to manage their commitments and respond to their emotions positively.

Additionally, similar to the ambiguity in the job description for this position, the current criteria for cultivating and selecting HTs are also vague. As mentioned above, the

appointment of an HT is a subjective process in which Chinese HTs are selected from the regular teaching staff by principals. Even a first-year novice teacher can be invited to take on the role of HT and, from then on, HTs' training and their professional learning commonly relies on an in-service model (McNaughton & Li, 2021), which has been criticised as unsystematic and inefficient (Ye et al., 2021). Furthermore, whereas Chinese subject teachers are supposed to hold a national teacher certification in a particular domain (such as English for primary schools or mathematics for secondary schools; X. Han, 2012), no skill-specific education or qualification are asked of, or designed for, HTs (Sui, 2013). Many aspects of HTs' daily commitments described earlier (e.g., addressing students' mental health issues) require particular skills for which they have not been adequately trained (Shi et al., 2014; Yao et al., 2021). Concerns related to this situation have been recently raised in research. For example, based on semistructured interviews with 27 Chinese HTs, Yao et al. (2021) found that 15 HTs were struggling with dealing with students' mental health issues and 18 HTs reported insufficient or even nonexistent training. The interview data also indicated that whereas HT participants appeared to lack knowledge about psychological support for their students, all participants had tried to intervene when they perceived student mental health problems given their pastoral commitments. However, the tension between that responsibility and lack of knowledge seemed to cause increasing confusion in their professional life. The loophole in HTs' appointment and training risks not only compromising HTs' experiences but also increasing the public's mistrust towards this role. Therefore, taking these structural influences into account, it could be argued that it is more likely for Chinese HTs to experience negative emotions (e.g., pressure, confusion, and frustration) than for subject teachers. Additionally, the flaws in the structure mentioned above reveal that further explorations and refinements are necessary for the HT system in China, at least regarding appointment, preservice training, and in-service support. Although this research will not directly address these problems related to inadequate training and subjective selection of HT, it is hoped that the findings will act as a starting point for future explorations on improving the HT system. Furthermore, the current research could work as a foundation for future studies to provide practical strategies for HTs to manage their commitments and respond to their emotions in more effective ways.

2.1.3 Chinese HTs' Reported Negative Emotions and Potential Influences

In addition to the above concerns related to structural factors, indeed, Chinese HTs have already been reported as frequently experiencing emotional insecurity and pressures (X.

Gao, 2011; Huang & Gove, 2015). In particular, Chinese HTs' negative emotions have been found to be related to tangible factors, such as students' unfriendly attitudes (S. Liu & Onwuegbuzie, 2012), high job demands (Tsang & Kwong, 2017; Y. Wang et al., 2015), and complex interpersonal relationships (e.g., subject teachers, parents, and school leaders; X. Gao, 2011). These results will be echoed by some findings in Section 2.3, in which the literature on teacher emotions will be reviewed systematically.

Furthermore, one aspect unique to the Chinese context is that HTs are negatively influenced by contextual factors, especially cultural influences such as Confucianism and the hierarchical culture, as shown below. It is interesting to note that although the teacher-reverence culture in China enhances teachers' professional authority (J. Chen, 2016), it also risks increasing Chinese teachers' negative emotions (X. Gao, 2011). Specifically, accompanied by respect for teachers, the Chinese public is empowered by the cultural tradition and there are continual demands on teachers to be morally and ethically above reproach (X. Gao, 2011). Shouldering these heavy cultural burdens, Chinese teachers might compromise their own experiences to fulfil these external requirements, which results in a relatively weak awareness of their autonomy and authority. For example, Chinese teachers have traditionally considered complaining about their workload or unfair treatment as a moral failure (Yin & Lee, 2012). Hence, Chinese teachers tend to hide their negative emotions, which could hamper their health and job satisfaction, as will be shown in Section 2.3.2. Moreover, Chinese teachers' negative experiences are further intensified by the Chinese hierarchical culture whereby power and authority were traditionally centralised at the top of the school hierarchy (Tsang & Kwong, 2017). Therefore, it is arguable that Chinese HTs' emotions are likely impacted by both the structural and cultural factors related to this position.

In sum, the above description sheds some light on how Chinese teachers—especially Chinese HTs—are embedded in their context and how they respond emotionally to external factors. These facts and empirical findings also serve as a robust complement for the discussions in Sections 2.2 and 2.3, for example, on how and why teachers deal with their emotions differently. Although the sources of Chinese HTs' negative emotions are beyond the scope of this project, the findings above led to a consideration related to whether and how these culturally induced emotions interact with TE. For example, it would be of value to explore whether being a high-expectation teacher (HiExT) helps Chinese teachers mediate extrinsic pressures or, conversely, intensifies their negative emotions (e.g., guilt, anxiety, or anger). Literature related to teachers' emotions will be reviewed in more detail in the

following sections.

2.2 Theoretical Background

2.2.1 Theorising Teachers' Beliefs and Teacher Expectations

The association between TE and teachers' beliefs is controversial in the existing literature. Some researchers, such as Jussim et al. (1996), conceptualise TE as a significant component of teachers' beliefs, in parallel with other factors (e.g., teachers' efficacy beliefs), whereas others, such as Pugh (1974), perceive TE as an attitude, which is different from beliefs (V. Richardson, 1996). This research adopts the former view, assuming that TE is one component of teachers' beliefs. Following this stance, knowledge regarding teachers' beliefs is essential to provide a comprehensive background for understanding TE and their associated role in influencing instructional practices.

Teachers' Beliefs. Despite the flourishing research on teachers' beliefs over 50 years, there is no universal definition that researchers have agreed upon (e.g., Furinghetti & Pehkonen, 2002; Pajares, 1992). Much has been written in the literature related to the lack of cohesion and agreement in terms of the nature of teachers' beliefs, and concerns have been raised as this vagueness "has limited the explanatory and predictive potential of teachers' beliefs" (Fives & Buehl, 2012, p. 471). However, Fives and Buehl (2012) suggested that the difficulty was not in defining the term (because many authors have done so), rather, the difficulty was in having scholars define and use the same terms consistently when exploring these constructs. By exhaustively coding approximately 300 articles, Fives and Buehl managed to identify five characteristics of teachers' beliefs, including that 1) they are implicit and explicit, 2) they exist along a continuum of stability, 3) they are activated by context demands, 4) they are interwoven with knowledge, and 5) they are best understood as integrated systems. Based on Fives and Buehl's study, Levin (2014) further suggested that teachers hold various beliefs simultaneously, which range from their beliefs about knowledge, their subject matter, and pedagogy, to beliefs about their students, themselves, moral and ethical dilemmas, and societal issues related to their teaching. The inconsistency in how beliefs have been defined and used is beyond the scope of this research. Nevertheless, following the views of Levin (2014) and the characteristics proposed by Fives and Buehl (2012), it is reasonable to perceive TE as one of many teachers' beliefs based on the current definition of the term. In this regard, although the main focus of this project is TE, previous research related to teachers' beliefs will also be discussed and involved when it is appropriate.

Despite the above controversies, studies have yielded quite consistent conclusions that

beliefs are influential predictors of human behaviour (Bandura, 1986; Rimm-Kaufman & Sawyer, 2004; A. G. Thompson, 1992). Examined in the context of the teaching profession, teachers' perceptions of students' potential achievement affect their teaching directly, and so, if there are to be any changes in instructional practices, beliefs must first be addressed. For this reason, research that explores potential links between TE, their behaviours, and students' outcomes (SC in this research) is of particular relevance. Additional literature about the impacts of TE on teachers' instructional practices will be reviewed in Section 2.3.

Teacher Expectations. Compared to the mixed picture emerging from the definition of beliefs, TE, as one teaching belief, are widely conceived of as inferences made by teachers about their students' academic competence and subsequent performance (Good & Lavigne, 2017). TE have been found to be predicted by multiple variables, including students' previous achievement, their ethnicity, socioeconomic status, gender, and student diagnostic labelling and could exert influences in both teaching and learning (for a review, see S. Wang et al., 2018). As shown below, theories related to the types of TE and TE effects are reviewed respectively in this section. More details of the empirical evidence in these fields will be further elaborated on in Section 2.3.

Types of TE. Alongside the widely accepted definition of TE mentioned above, variations have been found in the TE measures used in different studies. In the review of H. M. Cooper and Tom (1984), they examined research on how TE influenced the schooling process and identified three general types of TE found in the literature: 1) estimate of current ability or achievement, 2) expected improvement, and 3) discrepancies between teachers' perceptions of student's present ability and the observed performance. In particular, the first type of TE concerns teachers' judgement of their student's present ability or performance, with no prediction of future outcomes. Given that this measure captures teachers' perceptions of students' ability at present only, H. M. Cooper and Tom doubted this type as a real expectation measure; however, they also suggested that this measure was somehow helpful in uncovering TE effects. An instance for measuring TE in this way is the study of Rubie-Davies et al. (2014). Operationalising TE as teachers' perceptions of children's academic capability, Rubie-Davies et al. used the "intelligent" scale of Child Adaptive Behavior Inventory (CABI; Cowan et al., 1995) as a measure of TE of their fourth-grade students' current performance.

Unlike this view, the second type of TE concerns expected changes in student ability, which is related to teachers' prediction of the possible academic progression their students would gain over a period of time, often over 1 academic year. For instance, at the beginning of the semester, teachers could estimate their students' performance for different subjects or

knowledge domains in 1 year, which is the measure used in the current thesis. This approach has been widely adopted in recent studies, for example, Z. Li and Rubie-Davies (2017) asked 50 teachers in two Chinese universities to predict the level they believed each of their students would achieve by the end of their first school year in English.

Different from these first two types of TE, the third type concerns teachers' inaccurate estimates (over- or underestimates) of their students' present achievement. This type of TE is measured by comparing teachers' estimates of student ability (the first type of TE explained above) with objective assessment outcomes (e.g., standardised test scores). H. M. Cooper and Tom (1984) questioned the accuracy of this approach given that standard measures of student ability might not be perfectly valid; nevertheless, the over- or underestimates are helpful in predicting the direction of change in children's future achievement. An example of this approach is Sorhagen (2013), who focused on teachers' inaccurate expectations and therefore measured TE by computing a discrepancy score between first-grade students' current performance and their teachers' perceptions of each individual child's academic performance (math abilities, basic reading abilities, and language skills).

As will be further elaborated on in Section 2.3.3, in addition to the variations mentioned above, researchers tend to classify TE into individual-level and class-level expectations. In terms of individual-level, there is a stance that teachers have differing TE for each individual student, whereas for class-level TE, high-/low-expectation teachers tend to hold high/low TE for all their students. However, it is worth noting here that the class-level perspective does not suggest that TE are equally high (or low) for all students in the class; instead, controlling for student prior achievement, high-expectation teachers (HiExTs) predict all their students will achieve substantial academic improvement whereas low-expectation teachers (LoExTs) anticipate limited progress (again controlling for student achievement at the beginning of the year). Brophy (1985) first indicated that class-level TE might have more significance for student outcomes than expectations for individuals and, indeed, this idea has been verified in some studies (e.g., Rubie-Davies, 2010). Therefore, it would appear to be of some consequence for this research to investigate class-level TE, rather than individual TE. This also seems appropriate given that an HT's class, as a whole, remains with them for a number of years within the Chinese context.

TE Effects. The way that TE exert an influence on students' learning process and outcomes cannot be understood without knowledge of the self-fulfilling prophecy and the Pygmalion experiment. The self-fulfilling prophecy was initially proposed and explored in the sociology realm, for example, Merton (1948) explained this sociological phenomenon

with an instance of an imaginary bank. Briefly, the story described how the Last National Bank, a flourishing institution, finally collapsed due to a rumour of insolvency which led clients to queue up to withdraw their money. Defining the self-fulfilling prophecy as the confirmation of an initially false expectation, Merton (1948) emphasised three crucial components underpinning this phenomenon: 1) beliefs about a situation, 2) behaviours led by the beliefs, and 3) confirming outcomes. As elaborated by Merton (1957), a self-fulfilling prophecy might happen when "a false definition of the situation evokes a new behaviour which makes the original false conception come true" (p. 423), which could exist in various social phenomena and areas, such as the economy and social inequity. According to H. M. Cooper and Tom (1984), teachers' beliefs about a student's potential improvement (the second type of TE mentioned above) and natural discrepancies between teachers' beliefs and observed scores (the third type of TE mentioned above) are the kinds of TE that might cause self-fulfilling prophecies. Nevertheless, the effect might not happen when a teacher accurately estimates the student's potential given that an accurate estimate does not contain any "initially false" component illustrated above.

After the establishment of the concept of the self-fulfilling prophecy, there were sparse empirical and systematic investigations in this field until Rosenthal's (1963, 1976) work on unconscious experimenter effects. Through a series of animal experiments, Rosenthal found that some laboratory rats would perform better if the researcher believed that the rats they were working with were smarter than others. Hence, the self-fulfilling prophecy was further illustrated in relation to experimenter bias in which the subjects' behaviours may have varied due to researchers' unconsciously and subtly different actions, which would in turn enhance the possibility for the researchers to verify their original hypotheses (Rosenthal, 1963, 1976).

Later, the idea of the self-fulfilling prophecy was introduced to the education field by the Pygmalion experiment of Rosenthal and Jacobson (1968), which raised attention and kindled enthusiasm in this field. Rosenthal and Jacobson induced some elementary school teachers to believe that the performance of certain students (experimental group students) would improve remarkably by the end of the school year compared with that of others (control group students). Nevertheless, there was no actual difference among these two student groups because they were randomly assigned. Therefore, teachers were manipulated to form false expectations for these students in their class. The result of the Pygmalion experiment showed that the experimental group students consequently achieved higher IQ test scores in the TOGA (Test of General Ability), a nonverbal intelligence test, over 2 years.

It appeared that the student achievement gap could be attributed to the artificially differing TE because TE effects appeared to contribute to the confirmation of initially false TE. Another interesting finding from this experiment was that, following these artificially induced TE, teachers were found to be hostile to the unanticipated improvement made by the control group students when things ran against teachers' initial predictions. Consistent with the above three components (beliefs, behaviours, and outcomes) proposed by Merton (1948), Dusek et al. (1985) further explained the Pygmalion effect by showing the causal inferences: (a) the treatment resulted in higher TE (unmeasured) for the experimental group students than they would have achieved, which (b) mediated teacher behaviours (unmeasured), and in turn (c) led to better student outcomes.

The Pygmalion experiment contributed to the flourishing of the self-fulfilling prophecy in the field of educational psychology. Following the work of Rosenthal and Jacobson (1968), numerous replication studies were conducted under experimental settings (e.g., Carter, 1971; Evans & Rosenthal, 1969; Pellegrini & Hicks, 1972) and everyday situations (e.g., Babad et al., 1991; Babad et al., 1982) to explore TE effects. Nevertheless, these studies showed inconsistent findings and led to various interpretations about self-fulfilment of TE on student outcomes, as well as the underlying mediators, and influential factors of TE effects (Z. Li, 2014; S. Wang et al., 2018). Agreement on the existence of self-fulfilling prophecy effects of TE was partly reached when Rosenthal's series of meta-analysis and reviews were conducted (e.g., Ambady & Rosenthal, 1992; Rosenthal & Rubin, 1978). By examining the findings of 345 experiments on interpersonal expectancy effects, Rosenthal and Rubin (1978) found that interpersonal expectancy effects indeed existed by functioning as self-fulfilling prophecies. Rosenthal's finding was echoed by other reviews (e.g., Brophy, 1983; Raudenbush, 1984) which demonstrated the existence of TE effects that initial TE contributed to learners' confirmation of the teachers' perceptions and predictions. Furthermore, some scholars, such as Jussim and Eccles (1992), argued that studies in a real classroom setting over a long period were more likely to show stronger TE effects, which is the approach taken in this thesis. The substantial evidence in naturalistic settings since then further demonstrates TE effects, by showing that higher TE have significant associations with, if not impacts on, improved student psychosocial (e.g., academic motivation, self-efficacy, SC etc.; M. Zhu & Urhahne, 2015) and academic outcomes (e.g., Rubie-Davies et al., 2020). Additional empirical evidence will be presented in Section 2.3 on the relations between teacher beliefs, teacher emotions, and student outcomes.

2.2.2 Conceptual Framework for Teacher Emotions

Definition of Teacher Emotions. Similar to the ongoing debates on the definition of teachers' beliefs, there is no agreement on the definition of teacher emotions, considering they are highly elusive constructs (J. Chen, 2021). However, although it is challenging to define emotions scientifically and capture them empirically (Frenzel et al., 2021), some scholars have tried to establish conceptual frameworks for teacher emotions based on existing evidence. For example, the definition of emotions in the educational literature could be largely classified from four theoretical perspectives, which are psychological, social constructionist, and interactionist approaches summarised by Zembylas (2007), as well as the integrated perspective identified by J. Chen (2021) recently.

To be specific, the psychological perspective recognises emotions as primarily private, individual, and physiological, whereas the social constructionist perspective underscores the primary determinant role of context in emotions. In particular, the psychological perspective views emotions as individuals' internal feelings which are intrapsychic in essence (Parkinson, 2006). Put simply, the logic underlying psychological approaches is "I have feelings, and they are mine" (Zembylas, 2007, p. 59). Scholars following this view, for example, Pekrun et al. (2004), explored emotion in education as a personal experience, with a common assumption that emotions are first and foremost responses of those studied (Parkinson, 2006). In contrast, the social constructionist perspective considers emotions as essentially social experiences and, therefore, attends more to the sociocultural context where the meanings of emotions are shaped. Since the 1990s, many educational researchers have adopted social constructivist approaches to explore social and emotional relationships in teaching and learning (e.g., Hargreaves, 1998, 2000, 2001; van Veen & Lasky, 2005)

Transcending these two approaches, the interactionist perspective claims that it is overly simplistic to understand emotions in dichotomies (e.g., psychological and social), instead, emotions are essential to the processes where the psychological and the social are developed (Leavitt, 1996). The term "interactionist," as illustrated by Savage (2004), situates emotions beyond boundaries between psychodynamic and social constructivist approaches, and highlights the role of emotions in the formation of these boundaries which allow the subjects to interact. Furthermore, the interactionist perspective asserts that emotions are embodied and performative rather than merely language laden. In other words, how individuals understand, experience, and communicate emotions are largely associated with

ones' sense of body. A performative view of emotion emphasises the role of the discursive actions and the materiality of the body in different kinds of actualisations of emotions. As such, the language itself can never be able to exclusively communicate emotions. Researchers influenced by this approach, for example, Holstein and Gubrium (2000), preferred ethnographic explorations which allow the voices of individual subjects and in-depth investigations of various fields of emotional interactions.

Finally, the integrated perspective defines emotions from various approaches (J. Chen, 2021). Drawing upon Vygotskian theory (Vygotsky & Cole, 1978) of the integrated perspective, J. Chen (2021) identified this approach from existing educational emotion research. By integrating the multiple approaches mentioned above, the integrated perspective regards emotions as 1) a part of a social-cognitive development process, 2) intrinsically associated with individuals' thoughts and behaviours, and 3) mediated by different contexts (e.g. Frenzel et al., 2016). In line with the majority of scholars in the emotion field (e.g., Frenzel et al., 2021), this thesis conceptualised teacher emotions as fitting this generalised definition. Following this view, I concur with Scherer's (2009) multicomponential conceptualisation, where emotions encompass cognitive, physiological, motivational, and expressive components. In this regard, an emotional episode does not simply refer to feelings, but is also accompanied by thoughts, bodily-physiological changes, action tendencies, and expressive behaviour. In explicating how emotions occur within HTs, this doctoral research is rooted in appraisal theory which is closely linked to the above definition of emotions (e.g., Frenzel, 2014; Scherer, 2004). Appraisal theory conceives that the "emotional process begins with some kind of judgement or appraisal that involves the interpretation of some transaction in terms of its significance or relevance for the individual's motives, goals, or concerns" (Sutton & Wheatley, 2003, p. 329). This proposition suggests that emotions are not merely motivated by an event itself, but rather by the individual's judgement of the event. In other words, various emotions could be elicited by the same event, which depends on the meta-emotional process induced by personal judgement. Thus, appraisal theory, which highlights the role of individuals' judgement in the emotional process, provides some rationale for this doctoral research to explore the relations between TE (a kind of teacher belief) and teacher emotions. More details related to the appraisal process as antecedents of teacher emotions will be reviewed in Section 2.3.2.

The generalised definition of emotion and appraisal theory provides the theoretical background for the current research to explore how Chinese HTs expectations are associated with their emotions. Following Scherer's theory that emotions are related to personal

interpretations of events, one could argue that the relations between TE and teacher emotions is dynamic and complex, for example, moving from ambivalent judgements of students' achievement at the start of the semester, to mixed emotions based on students' reactions and teachers' own reflections on their teaching practices. Meanwhile, the emotional appraisal process is suggested to be mediated by different variables, such as the person involved in the event, task characteristics, and the context (Efklides, 2006). This stance also explains why it was necessary to provide the background to the role of HTs and of the Chinese educational system in this thesis. As such, this doctoral research shifted attention from the individual perspective to a broader context where these HTs were situated.

Types of Teacher Emotions. A conceptual field worth mentioning related to emotions is how they are categorised and measured accordingly in educational research. There are two main classifications in existing emotion literature, namely, the state–trait continuum, and the dimensional–discrete entities.

Regarding the state–trait continuum, in particular, emotional states are short-lived and momentary experiences, whereas emotional traits refer to the habitual experiences of specific emotional states which are more ubiquitous and frequently occur. The trait view is more popular in quantitative research, where emotions are measured by self-report questionnaires, for example, the Teacher Emotions Scales (TES; Frenzel et al., 2016) and the Teacher Emotion Questionnaire (TEQ; Burić et al., 2018). This is also the approach adopted in Study 1 of this project. In contrast, the state view is widely adopted in qualitative research, where the researchers measure the emotions through daily diaries (e.g., de Ruiter et al., 2021), or interviews where teachers recall and describe certain emotional episodes with different stakeholders (e.g., Hargreaves, 2000), which is the approach adopted in Study 2 in this thesis.

Another major standpoint is to understand emotions as either dimensional or discrete entities. The dimensional perspective classifies emotions into unpleasant (negative) emotions and pleasant (positive) ones. Nevertheless, the discrete perspective emphasises the distinctions between each emotional component (e.g., happiness, anxiety, or boredom). The discrete approach underscores the importance of understanding these components separately because they are unique experiential states which suggest varying physiological and expressive responses and behavioural tendencies. Both dimensional and discrete emotion approaches are frequently adopted in teacher emotions research (Frenzel et al., 2021). As suggested by Frenzel et al. (2021), within the discrete approach, teacher enjoyment has been most frequently explored, whereas other discrete emotions, especially anxiety, have received less attention. This trend is somehow unexpected because anxiety is one of the most

considered components in student emotion research (e.g. Pekrun et al., 2017). As explained by Frenzel et al. (2021), students' anxiety could be largely related to the assessments in schools, whereas teachers might be less concerned about their own failures given that their evaluations are less institutionalised. Therefore, the emotion of anxiety might not be that obvious among teachers compared to students, which may explain why it has received less attention in the existing teacher emotion literature. However, things can be different when exploring teacher emotions in some contexts with stricter evaluations in relation to standardised test scores (Frenzel et al., 2021), which is one of the reasons that this thesis evaluated teachers' anxiety as part of their emotions.

Effects of Teacher Emotions. As a critical role in both teaching and learning, teacher emotions have been found to be related to multiple outcomes. For example, J. Chen's (2021) review categorised these consequences into four themes: teachers, students, teaching, and learning. In addition, one conceptual framework was proposed by Frenzel et al. (2021), which was comprised of (a) *direct transmission effects* between teacher and student, (b) *mediated effects* on student outcomes, and (c) *the recursive effect* of student outcomes on teacher emotions.

In particular, on one hand, teacher emotions could exert an influence on student outcomes directly (teacher emotions → student outcomes), or indirectly via teaching behaviours (teacher emotions → teaching behaviours→ student outcomes). On the other hand, the recursive effects from student outcomes to teacher emotions were also found both directly (student outcomes → teacher emotions) and indirectly, via teachers' appraisals (student outcomes → [teachers' appraisals] →teacher emotions) and teachers' differentiated behaviours (student outcomes → [teaching behaviours] →teacher emotions). Given that the overarching focus of the current project was TE and their relations with teacher emotions and student SC respectively, how teacher emotions exerted influences on student outcomes was not a particular focus of this thesis. However, among the effects of teacher emotions mentioned above, the recursive effects of student outcomes on teacher emotions are worth elaboration, because, as shown below, this process shares some similarities with the TE framework and might involve teachers' perceptions of specific students directly.

As illustrated by Frenzel et al. (2021) and also in their reciprocal model (Frenzel, 2014; Frenzel et al., 2020), teacher emotions are shaped by their appraisals of classroom conditions and student performance, which in turn could predict student outcomes. As such, students' individual or class-level characteristics (e.g., students' emotions and abilities), and their behaviours in the classroom might influence teachers' appraisals and perceptions of

them, which could further exert influences back on teachers (Frenzel et al., 2021). This mechanism is aligned with the patterns of TE effects introduced above. As shown in Section 2.3 and Figure 2.2, the current thesis was rooted in such a reciprocal conceptual framework and integrated it within the TE framework. Furthermore, another pattern worth mentioning in this model is the association between teacher emotions and their teaching behaviours, which is also underscored in recursive effects. Transcending the predictive role of teacher emotions on their instruction behaviours, Frenzel et al.'s (2021) model showed that teachers' instructional decisions and their subsequent behaviours might also feed back on their emotional experiences. To be specific, when teachers provide high-quality teaching practices, they are more likely to experience positive emotions (e.g., satisfaction), whereas negative emotions (e.g., boredom) might be aroused if teachers keep delivering low-quality instruction. As mentioned above and reviewed below, given that high TE are more likely to predict high-quality instructional behaviours (S. Wang et al., 2018), it is arguable that there might be some associations between TE and teacher emotions following Frenzel et al.'s (2021) model.

2.2.3 Theorising Students' Self-Concept

Different from the ongoing controversies over the definitions of teachers' beliefs and their emotions, there is a relatively clear picture in the context of students' SC (Mynott, 2018). This research adopts the definition of Shavelson et al. (1976), whereby SC refers to the way that individuals perceive themselves, which is shaped by experiences with surroundings and personal interpretations of the environment. According to Shavelson et al., the reinforcement by others and self-attributions of an individual's behaviours also contribute to the formation and the development of ones' SC, which could further explain and predict individuals' behaviours. Based on this definition, this doctoral research follows the Marsh/Shavelson model (Marsh & Shavelson, 1985), as will be shown below, to explore the relations of TE with students' academic and nonacademic SC.

Through the latter half of the 20th century, a domain-specific hierarchical SC structure (Shavelson et al., 1976) became popular instead of the early global perspective. The structure developed by Shavelson et al. (1976) involves an overarching global SC, below which are the academic and nonacademic levels (involving social, emotional, and physical aspects). These two levels break down further into more specific domains, for example, a subject-specific academic SC. However, this model has since been challenged by some subsequent studies. Drawing upon a confirmatory factor analysis (CFA), the study of Marsh

and Shavelson (1985) showed that verbal SC and mathematics SC could not be integrated to form a higher order academic SC (Marsh et al., 2006). Additionally, they also found that other components making up the SC could be highly differentiated. Therefore, a revised Marsh/Shavelson model was introduced in 1985 (Marsh & Craven, 1997), which comprised at least two second-order academic factors, the verbal-academic SC and maths-academic SC. This perception of SC as a multidimensional construct also resulted in Marsh and O'Neill's (1984) design of the Self-Description Questionnaire III (SDQ III), which was developed to measure various components of the SC specifically for the late adolescent population.

To establish the importance of exploring student SC along with TE, a brief summary of relevant research on student SC is provided here. As suggested by the Organisation for Economic Co-Operation and Development (OECD, 2003), SC is a critical construct in education as it "has important benefits for motivation and for the way in which students approach learning tasks" (p. 14). Combined with existing evidence on positive relations between SC and school achievement, quality of life, and mental health (Esnaola et al., 2020), investigating students' SC is of value. Specifically, in such studies where positive SC has been reported, higher levels of academic success and performance in subject-related activities (Susperreguy et al., 2018), effort and persistence (Marsh & Craven, 2006), approaches to learning (Mynott, 2018), and student engagement (Schnitzler et al., 2021) have also been reported. In contrast, in studies where lower levels of SC have been reported, students were more likely to experience greater declines in subject-learning interest (Denner et al., 2019) and at greater risk of mental health disorders (Mann et al., 2004).

Generally, most existing literature demonstrates relations between academic SC and academic achievement, but few studies have been found that focus on the nonacademic subdomains of the SC. To fill this gap, Ogle et al. (2016) examined longitudinal associations between nonacademic SC, academic SC, mental health symptoms, and academic functioning. Aligned with previous findings that children's SC in a particular area influences their performance in that area, more importantly, the study of Ogle et al. (2016) found that a change in the way a child perceived themselves in one domain led to subsequent changes in other domains. For example, if a student believed s/he could behave well, then s/he might begin to have faith that s/he can learn well. Their findings expanded on the hierarchical framework of Shavelson et al. (1976) and the one of Marsh/Shavelson (Marsh & Shavelson, 1985) by explaining that changes in one subdomain (e.g., social SC) could predict changes in another (e.g., verbal-academic SC). As such, the role of nonacademic SC in the development of a child could be further highlighted, which provides a rationale for this doctoral project to

explore both academic and nonacademic students' SC.

Together, the current evidence indicates that SC meaningfully promotes self-adjustment and works as a possible leverage for student development. Therefore, given the important links established above, it is somewhat unsurprising that several researchers have investigated ways in which student SC has been associated with other constructs of interest, especially its relations with teachers' psychological functioning (e.g., Arens & Morin, 2016). More details related to the predictors of student SC will be discussed in the following section. In addition to the key role of SC in students' development, this doctoral research pays special attention to both academic and nonacademic SC constructs given their close links to the particularity of HTs. As described previously, HTs play a crucial role in possibly contributing to students' overall SC by interacting with students more intensively and comprehensively than other teachers. Thus, there is reason to assume that the differences, if any, between any relations with students' academic and nonacademic SC will be more prominent when examined in the context of HTs than among regular teachers in the Chinese context. Moreover, given their unique roles, it is particularly important for HTs to realise how students' SC is related to teacher behaviours, especially inadvertent behaviours.

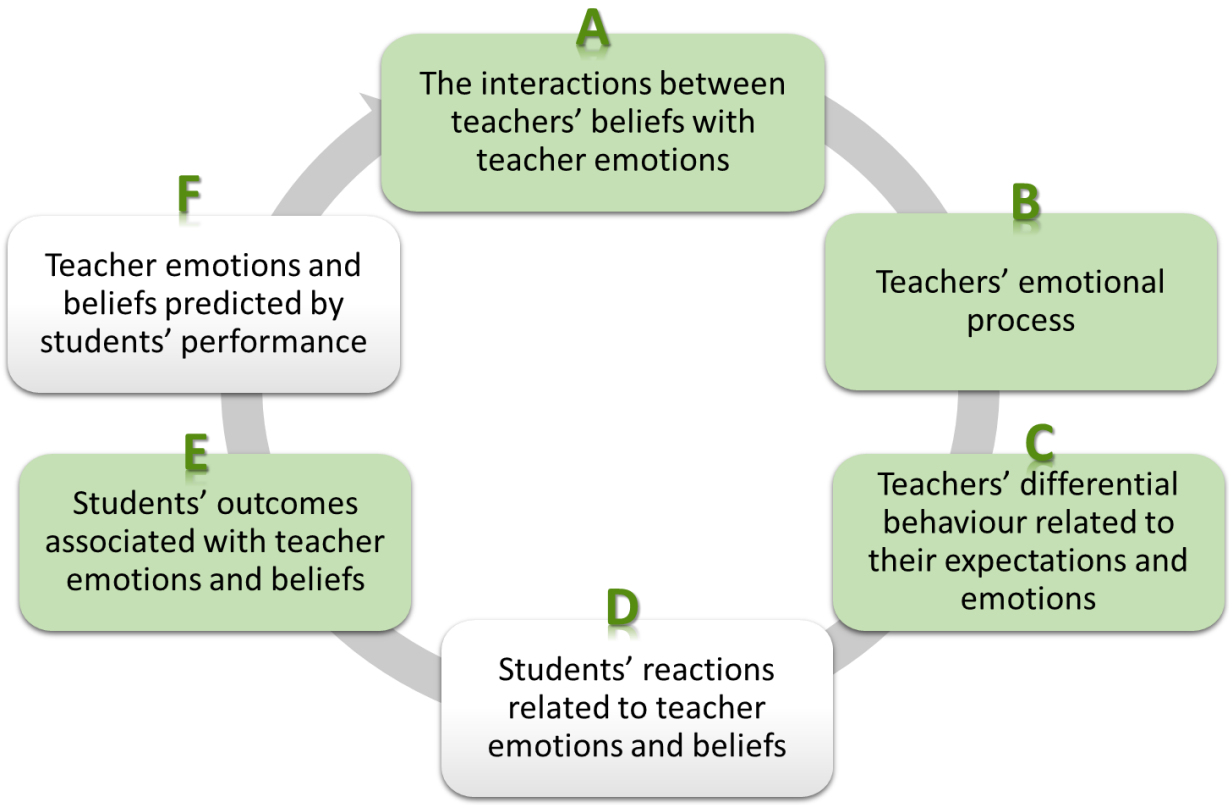
2.3 Relations Between Teachers' Beliefs, Their Emotions, and Students' Outcomes

The section above has presented the main and widely used theoretical frameworks referred to in the research fields of teacher beliefs, teacher emotions, and student SC. Following these theories, within the last 50 years, a number of studies have aimed to describe how teacher emotions and teachers' beliefs are respectively related to the process of learning and student outcomes (H. S. Kim, 2015). Recent studies of these concepts have moved away from investigating them in isolation, and have focused more on examining the combination of these factors alongside student cognitive and affective outcomes (e.g., Burić & Macuka, 2018). Some of these studies (e.g., Burić et al., 2017) have alluded to the interactions between some constructs of teacher beliefs (e.g., self-efficacy) and their emotions, with little regard for TE. However, given the importance of TE, teacher emotions, and student SC shown in this literature review, and their potential links, it is of value to explore how and to what degree these constructs are interrelated, which is one of the gaps that this doctoral project aims to address. Therefore, this section reviews the theoretical and empirical literature on the relations between these three fields, based on which the researcher has synthesised their relations into a six-staged flow diagram (see Figure 2.2). It is worth noting here that whereas these relations are theorised to be an inseparable process, only Stages A, B, C, and E

are relevant to this doctoral project. Hence, the following section will only review these pertinent components in detail.

Figure 2.2

Overall Patterns of Teachers' Beliefs, Emotions, and Students' Outcomes



2.3.1 Stage A: The Interactions Between Teachers' Beliefs with Teachers' Emotions

Previous research has suggested that the relations between emotions and beliefs are interconnected and interdependent (Frijda & Mesquita, 2000). As detailed below, the literature shows that, on the one hand, teachers' beliefs not only serve as a determinant of specific emotions but are also associated with the intensity and quality of the emotional responses. On the other hand, emotions have been found, in turn, to mediate beliefs and contribute to translating thoughts into action.

Predictive and Mediation Role of Teachers' Beliefs in Emotions. Existing literature has identified the predictive role of teachers' beliefs in certain emotions (J. Chen, 2021). Burić and Macuka (2018), for example, conducted a cross-lagged analysis with 941 teachers from Croatia and found that teachers with higher perceived self-efficacy experienced higher levels of positive emotions (joy, pride, and love), and lower levels of unpleasant emotions (anger, fatigue, and hopelessness), towards their students. Similarly, by exploring

teachers' experiences of reform-oriented practices, Cross and Hong (2009) suggested that teachers experienced negative emotions (such as stress or frustration) when their existing beliefs were not matched to what the reform required. Meanwhile, by identifying four general paths leading to pleasant or unpleasant emotions, Cross and Hong also stressed that induced emotions in turn worked as powerful predictors for confirming or challenging teachers' existing beliefs, as will be further discussed below.

Paralleling the predictive role of beliefs in emotions, teachers' beliefs might also intensify emotions that have already occurred. Based on 492 responses collected through teachers in the US Midwest, Chang (2013) claimed that teachers' intensity of emotions might increase when feeling less confident in solving a problem. Similar patterns have been shown to occur in the relations between desire, expectations, and emotional responses (Price & Barrell, 1984). Another example could be the work by de Ruiter et al. (2019, 2021), and de Ruiter et al. (2020), which showed interesting findings on the relations between teacher emotions and teachers' perceptions of students. In their studies, Dutch teachers of Grades 3–6 were asked to recall and describe their emotional experiences of classroom events that were specific to individual students, by using either daily diaries (de Ruiter et al., 2021) or questionnaires (de Ruiter et al., 2020; de Ruiter et al., 2019). One important finding from their research was that teachers responded more emotionally negatively to students who were regarded initially as more disruptive compared to students regarded as less disruptive in the past (de Ruiter et al., 2020). Although the teacher perceptions of students measured in their studies were not exactly the same concept as the TE explored in this thesis, the findings that emerged from their work are illuminative for this research as possible relations between teacher emotions and their expectations of students are explored. In addition, teachers' self-efficacy, as an important teacher belief, has been found to be related to their emotions. Based on a survey with 1,187 preservice teachers from Canada, England, Hong Kong, and Thailand, Klassen et al. (2013) found that teachers' stress from student behaviour was largely mediated through their self-efficacy in three of four contexts, with no mediation effect observable in the Hong Kong sample. This result indicated a likelihood that teachers might alleviate their insecure emotions, or at least respond to emotions more effectively, when they had higher levels of self-efficacy. Additionally, Klassen et al.'s study also showed that teachers' beliefs and their interactions with emotions were influenced by contextual factors. This finding is particularly relevant to this doctoral research because, as a complement to existing conclusions in a Western context, the current project in a Chinese context was designed with consideration of shifting attention from the level of individual emotions to the contexts where

teachers are situated. However, most existing findings in this field (e.g., Klassen et al., 2013) are limited by the use of self-report data collected at one time point. It will be interesting and useful, for instance, to use longitudinal research designs to investigate the causal direction of the relations among these variables.

Although previous literature has alluded to teachers' beliefs being associated with teacher emotions, it is inconclusive as to how and to what degree. This could be partly because teachers' beliefs and teacher emotions are both dynamic, situated, and contextual, which has resulted in intrinsic and complex relations (Barcelos & Ruohotie-Lyhty, 2018). A recent study by Chang (2020) transcended previous findings on the direct relations between teachers' beliefs and their emotions; instead, she tried to test a hypothesis on the underlying mechanism between teachers' beliefs about emotional display rules, emotional regulatory approaches (e.g., cognitive reappraisals), and teachers' burnout. Based on survey data from 561 full-time teachers from a Midwestern state in the US, Chang confirmed the relations between these three factors (teachers' beliefs, emotional regulation, and emotional outcomes) using structural equation modelling (SEM). The results showed that teachers' beliefs about the display rules were highly related to teachers' suppression of their emotions in the classroom, which in turn mediated their emotional experiences and may have exerted detrimental effects on teachers' well-being. Chang's research provided insightful understanding of the relations between teachers' beliefs and emotions by showing the underlying mechanism for teacher's emotion regulatory approaches being shaped by their beliefs in the classroom. In particular, Chang found that teachers' beliefs (beliefs about classroom norms and culture, and self-perceptions as teachers) mediated their reactions to the emotions they experienced in their daily encounters with students, which further mediated their burnout as an outcome. More details related to emotional regulatory strategies and corresponding outcomes will be further reviewed in the following sections.

Predictive and Mediation Role of Teacher Emotions in Teachers' Beliefs. Bearing in mind the aforementioned predictive and mediation role of teacher beliefs in their emotions, emotions have been found, in turn, to predict beliefs in two ways: (1) beliefs that were previously nonexistent could be generated, or (2) existing beliefs might be changed. These modifications may also involve a mediation or increase in the strength of the belief (Frijda & Mesquita, 2000). Despite Frijda et al.'s (2000) concerns over the scarcity of empirical research confirming the emotions–beliefs effects, several relevant studies have been identified recently. For example, the interviews conducted by Timoštšuk and Ugaste (2012)

demonstrated the influence of emotions on the development of the professional identity of student teachers. By interviewing 45 student teachers in Tallinn University, the researchers found the critical role of emotions in their teaching experiences, which further related to the development of the student teachers' professional identity. For instance, some physics teachers suggested that they felt confident and happy when they received positive reactions from others, which contributed to their self-perceptions as a teacher. In addition, the interview data also revealed that the influences associated with their negative emotions appeared to be more intensive than that related to positive emotions, which underscored the importance of teacher education to deal with teachers' negative experiences. In addition, the case study conducted by Zembylas (2005) with a teacher participant (Catherine Myers) helped illustrate how specific emotions shaped teachers' beliefs in more depth. For example, Catherine described how she experienced devastating emotions when she had goal conflicts between school rules (teaching-to-the-test) and her own teaching philosophy and values (drill and practice), and how these negative emotions in turn compromised her SC. As Catherine described, "During those days, I felt like crying all the time, feeling guilty of what I was doing. I thought I was a lousy teacher for not doing what everyone else was doing. I constantly questioned my approach … and I still do" (p. 475). As shown in Catherine's descriptions, the feeling of being alienated and dismissed by others destroyed her self-confidence and self-esteem and further threatened her own pedagogical beliefs. These findings are in line with those of Frijda et al. (2000) who proposed that beliefs can be awoken, interrupted, and shaped by emotions, during which the emotions might amplify, alter, or make the beliefs resistant to change.

Furthermore, in addition to the interrelations between teacher emotions and beliefs, philosophers (e.g., Frijda et al., 2000) have indicated that emotions are also integral to the manifestation of translating thoughts into action. In other words, whereas beliefs are precursors or guides for individuals' actions, without emotions, these actions would never be actualised (Frijda & Mesquita, 2000). Therefore, given that TE and teacher emotions are interrelated and are each associated with instructional practices, further exploration of them in combination is warranted, especially since this has not been empirically studied in previous literature (Frijda & Mesquita, 2000). This stance constitutes an important reason for this doctoral research to explore TE and teacher emotions in combination and then approach teachers' perspectives on corresponding patterns and how such interactions are related to their teaching practices.

Overall, despite a substantial body of literature exploring how teacher beliefs interact with emotions, most previous research has studied teachers' beliefs as a whole, with little attention paid specifically to TE. However, controversies remain over the interrelations between different constructs of teacher beliefs (Rubie-Davies et al., 2012), which suggests that different components might have various patterns. Thus, the findings on the relations of general beliefs and emotions cannot be simply transferred to TE. However, previous preliminary findings or speculations on the relations between teachers' beliefs and teachers' emotions provide some rationale for the doctoral project to explore this field in a more specific way.

2.3.2 Stage B: Teachers' Emotional Process

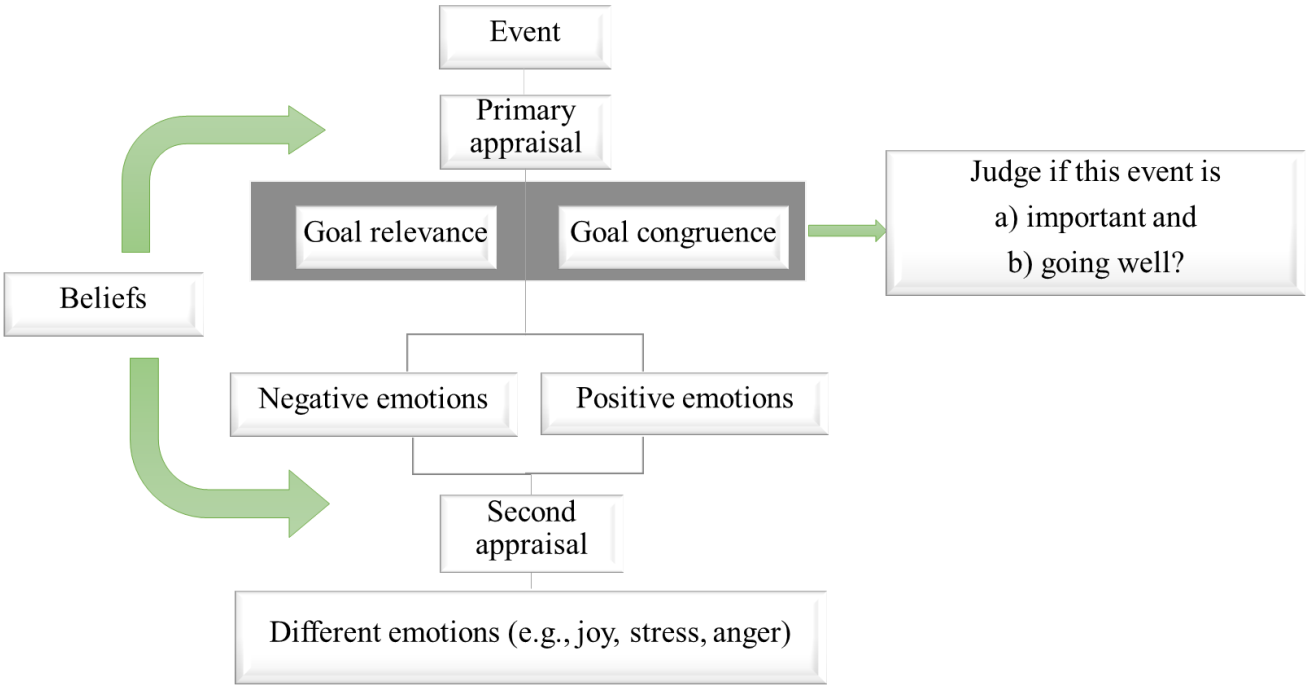
Appraisal Processes as Antecedents of Emotions. Following the view that emotions are elicited by evaluations (or appraisals) of events or situations depending on individuals' beliefs (Lazarus, 1991; Scherer, 2001), this doctoral research builds upon Lazarus's (1991) appraisal theory to explore teachers' emotional processes. This approach has been shown earlier to be helpful in analysing teachers' emotions (e.g., Howard & Gigliotti, 2016) by allowing the researchers to capture differences that characterise positive or negative emotional responses (C. A. Smith & Kirby, 2009).

Specifically, as shown in Figure 2.3, Lazarus (1991) divided the factors triggering and mediating emotions into two classes, namely, *primary appraisal* and *secondary appraisal*. To be more particular, primary appraisals "concern the stakes one has in the outcomes of an encounter" (p. 827). Primary appraisals involve evaluations of 1) goal relevance or importance, which concerns the importance or strength of the goal; and 2) goal congruence or incongruence, which relates to whether the encounter is considered favourable or not. Hence, primary appraisals are perceived to be the impetus in emotional activities (Lazarus, 2001), influencing how emotions are triggered. Secondary appraisals involve the coping options and prospects of the situation, which concerns agency for the event, coping potential, and future expectations (Lazarus, 1991). For instance, when faced with students' low achievement, teachers who believe that students themselves should take responsibility for their learning may feel angry, whereas teachers who attribute the failure to themselves may feel guilty or anxious. As reflected in Lazarus' theory of appraisal, both primary and secondary appraisal are closely related to personal beliefs. It is interesting to transfer this theory to the field of TE where a similar trend has been found: some teachers appear to believe that little can be done to improve the learning of low-ability students and seem to shrink from their

responsibility for student learning (Diamond et al., 2004; Rubie-Davies et al., 2006) and blame the students when they do not achieve well. Nevertheless, other teachers take personal responsibility for student learning and examine their own pedagogy when low-achieving students are making little academic progress (Diamond et al., 2004). Based on this stance, this research inquired into whether teacher emotions were different for teachers with high TE from those with low TE. In addition to the potential relations between teachers' emotions and their TE, this assumption also indicates a possibility that Chinese HTs' emotions, which have been typically described in the literature as insecure and negative, might be improved through an intervention related to their TE. Hence, it is valuable to first investigate whether there are any links between Chinese HTs' emotions and their TE. By showing the relations between these two factors, this exploratory research might provide future researchers with ideas for practical strategies to help raise TE and enhance their positive emotions.

Figure 2.3

Appraisal Process



Note. This figure is designed based on the theory of Lazarus (1991)

Emotion Regulation as Mediating Factors. In addition to the above appraisal processes, the other part of this stage (Stage B: emotional process) is emotion regulation, where a person determines which emotions to allow or contain and when, and how, to express them (Gross, 1998). Based on a literature review of teacher emotion regulation, Chang (2013) concluded that individuals might regulate their emotions in one of two ways,

namely, cognitive reappraisal and expressive suppression (Gross & John, 2003).

Cognitive reappraisal is the process where individuals rethink, reevaluate and reinterpret an emotion-eliciting situation to alleviate negative emotions, while increasing pleasant emotional experiences. For example, when a disruptive student messes up the classroom, a teacher might initially be angry; however, she can cognitively reappraise the emotional stimulus by thinking that the classroom was already quite dirty and in need of a good clean. In doing so, the teacher might mediate the destructive emotions that ensue from dealing with student misbehaviour. There is consistent evidence that the use of cognitive reinterpretation is related to many positive outcomes, for example, less stress (Yamasaki et al., 2006), less social anxiety and depression (Dryman & Heimberg, 2018), lower levels of emotional exhaustion (Donker et al., 2020), and improved mental health (T. Hu et al., 2014). As previously reviewed in Stage A (Section 2.3.1), Chang (2020) conducted a study exploring the relations between teachers' beliefs about emotional display rules, emotional regulatory approaches (e.g., cognitive reappraisals), and teachers' burnout. In addition to the relations between teachers' beliefs and their emotional regulation, the model also confirmed that the cognitive reappraisals predicted lower teacher burnout in all three dimensions (emotional exhaustion, depersonalisation, and low personal accomplishment). The opposite pattern was observed related to expressive suppression which increased teachers' burnout in all three dimensions, as shown below. The findings showing the relations between emotional strategies and outcomes indicate that emotions, especially negative ones, are not simply a condition to be felt or endured, rather, they imply a likelihood to be mediated by personal beliefs and interventions. From this perspective, it is important to be aware that whereas many inevitable encounters might trigger HTs' negative emotions, it is possible for individuals to regulate their emotions effectively and minimise corresponding negative results. Following this argument, the findings emerging from this doctoral research could be important for future studies on suggestions for Chinese teachers' responses to their emotions.

Expressive suppression, however, influences individual's behaviours by "shutting-down" emotions which might threaten one's emotional equilibrium (Gross, 1998). In this regard, individuals might hide their true emotions to prevent negative outcomes and increase the possibilities of desired outcomes. Expressive suppression has been found to predict more teacher burnout, including emotional exhaustion and depersonalisation, as well as diminished personal accomplishment (Chang, 2020), and to hamper teachers' well-being (J. Han et al., 2020). However, there is an exception related to the expression of anger, which has been found to predict poorer social outcomes and physical indices among Americans, although this

association was not evident for Japanese teachers (Kitayama et al., 2015). By examining 48 studies which comprised 21,150 participants, the meta-analysis of T. Hu et al. (2014) suggested that improved mental health was positively and significantly predicted by cognitive reappraisal, whereas expressive suppression was related to decreased mental health. More importantly, the researchers confirmed the moderator role of culture in this relation. In particular, the association between expressive suppression and negative mental health has been found to be stronger in Western culture than that for Eastern contexts. Echoed by the findings in Kitayama et al. (2015), T. Hu et al. (2014) emphasised that the associations between emotional regulations and outcomes might vary across contexts and thus further investigation was warranted. Following this view, it is interesting to explore teacher emotions further in the Chinese context, where teachers are more inclined to accumulate or hide unpleasant emotions than express them genuinely (Yin & Lee, 2012) due to high public expectations (T.-J. Wu et al., 2020), the hierarchical system, and Confucianism (Lee et al., 2013). Combining the promising outcomes found in cognitive reappraisal, exploring whether TE could mediate teachers' emotions and in what ways, is of special value for Chinese HTs. Bearing this in mind, this doctoral project functions as an initial step by exploring the relations between these two factors so future researchers may use the findings to develop practical strategies to help raise teachers' expectations and enhance their positive emotions.

2.3.3 Stage C: Teachers' Differential Behaviour Related to Their Expectations and Emotions

As mentioned in Stages A and B, TE and teacher emotions are likely to be interdependent, both of which are integrated in a cyclical emotion generation sequence. Subsequently, in Stage C, the combination of teacher emotions and their expectations is proposed to be related to different behaviours of teachers in class. This section reviews the literature on the associations of teaching practices with TE and teacher emotions.

Teachers' Differential Behaviour Related to TE. Many rigorous studies have verified that TE can be manifested and transmitted to students through teachers' different verbal and nonverbal behaviours during instruction (e.g., Babad & Taylor, 1992). The work of Brophy and Good (e.g., Brophy & Good, 1970) indicated that teachers' varying behaviours towards different students worked as the mediating mechanism for TE effects, in which TE cues were communicated to students both directly and subtly. Later, Brophy (1983) summarised 17 teacher–student interaction behaviours based on relevant studies, for example, teachers might wait less time for low-expectation students to answer and praise them less

frequently compared to high-expectation students. Furthermore, a useful four-factor theory was proposed by Rosenthal (1974) which identified four ways that teachers could communicate their TE to students, namely, climate (socioemotional climate in classroom), feedback (teachers' praise, criticism, reward, and punishment for students), input (the time and attentions that teachers give to students, and teaching materials used), and output (students' opportunities provided by teachers to respond, ask, and answer questions). This typology was further supported by Harris and Rosenthal's (1985) meta-analysis of 136 investigations. Harris and Rosenthal's analysis highlighted the crucial role of distal behaviours in TE effects, especially the socioemotional environment created by teachers in their classroom. The teachers' behaviours and corresponding influences mentioned in Harris and Rosenthal's research were arguably at the class level, for instance, the class climate shared by all students, rather than teachers' behaviours towards certain students.

Combining Harris and Rosenthal's study and the TE classifications that teachers not only develop TE for individual students but also for their classes as a whole (Brophy, 1983), it appeared that class-level TE were worthy of exploration. Nevertheless, as mentioned earlier, most existing research has explored TE only from the perspective of individual-level TE, with relatively limited attention to class-level TE. In recent years, however, Rubie-Davies and her colleagues have initiated a series of studies investigating class-level TE and their underlying working mechanisms of functioning as self-fulfilling prophecies or influencing student achievement (Rubie-Davies, 2006, 2007; Rubie-Davies et al., 2014). Her work suggested that different levels of class-level TE generally led to differing teachers' behaviours in their teaching and interactions with students, which resulted in varying instructional and psychosocial environments in classrooms (Rubie-Davies, 2007). In one study, Rubie-Davies (2008) interviewed teachers with different levels of TE and found two distinct patterns in their instructional beliefs and self-reported behaviours, which complemented and confirmed previous findings from classroom observations (Rubie-Davies, 2007). In particular, it seemed that HiExTs provided a more careful learning framework for their students, including organising students into mixed-ability groups, enhancing students' autonomy, providing careful explanations of new concepts and clear feedback, reacting to student behaviour positively, and asking mostly open questions, whereas LoExTs often behaved in a directly opposing fashion. As the first work to explore the communication of TE to the class as a whole, rather than behaviours towards individual students, Rubie-Davies' research has contributed to TE research by showing more generalised TE effects. Additionally, Rubie-Davies' work advanced TE research by best elaborating Rosenthal's (1974) four factors (Z.

Li, 2014). However, this work was conducted at the elementary and middle school level and left unanswered questions about whether the findings would generalise to higher levels of schooling. Nevertheless, evidence since then has been consistent; for example, HiExTs have been shown to perform more proactively than LoExTs in providing oral feedback, and in engaging and responding to students (e.g., S. Wang et al., 2019), which in turn has been shown to predict larger academic improvement for students (e.g., Szumski & Karwowski, 2019).

However, despite a long history of TE research in Western academia, there are a much smaller number of studies in the Chinese context. Regarding individual-level TE research in the Chinese context, Jia's (2012) case study, for example, investigated the associations of TE with teacher–student interactions by conducting classroom observations of four English teachers based on the revised Flanders' Interaction Analysis Categories. By calculating the amount of time that each teacher spent with individual students regarding 12 classroom verbal behaviours, Jia found that teachers' behaviours and reactions to students were related to student gender, achievement level, and class leader status. Briefly, girls were provided with more interaction opportunities than boys and class representatives received more emotional support than other students. Additionally, teachers interacted with high achievers the most, followed by low achievers, whereas average achievers were somehow neglected. Regarding the contents of the interactions, high achievers were mostly praised and received referential questions which required higher order thinking, whereas low achievers were mostly criticised and asked questions that usually required "Yes" or "No" answers. The pattern that emerged from Jia's study was consistent with that of previous researchers (e.g., Babad et al., 1989a, 1989b; Brophy, 1985) who found that teachers might compensate low-expectation students by spending more time and providing more instructions for them due to teachers' increasing awareness of their varying reactions towards specific students. Nevertheless, compared to the increased quantity of interactions, the quality of the teacher–student interactions remained unchanged (Babad, 1998). For example, teachers tended to show more positive facial expressions and body language (e.g., smiling more) towards high-expectation students than to low-expectation students (Babad et al., 1989b).

In addition to individual-level TE research in the Chinese context, several recent studies exploring class-level TE research have been identified. For example, Z. Li (2014) explored both perceptions of teachers and students of the classroom climate in two Chinese universities. The results of teacher interviews and student focus groups indicated that HiExTs developed a more caring, personal relationship with their students, allowed more student

autonomy, and promoted more cooperation between students compared to LoExTs. A similar trend was found in the study of S. Wang et al. (2019) by observing 32 lessons of eight junior high school teachers. Although these results are not robust enough to argue that TE effects in the Chinese context share similar patterns with earlier results in Western countries, the existing studies indeed shed light on TE effects in Chinese classrooms and provide a starting point for further exploration. However, the existing Chinese studies exploring the TE phenomenon are mainly focused on teachers in university (e.g., Z. Li & Rubie-Davies, 2017, 2018) and junior high school (e.g., Ding & Rubie-Davies, 2019; S. Wang et al., 2021; S. Wang et al., 2019, 2020). As shown above, there is limited evidence of TE effects in the context of the Chinese high school, despite its key role in students' transition from fundamental education to the tertiary level. Additionally, with intensifying academic competition for university places (X. Zhao et al., 2015), the Chinese teachers' role in influencing students' future success has been especially emphasised in high schools. Teachers are therefore subject to ever-closer public scrutiny and more external demands (X. Gao, 2008), which may impact how they experience dilemmas emerging from the relations between social change and cultural tradition (Fong, 2004; Huang & Gove, 2015). Taking these considerations together, this doctoral project paid special attention to the high school context.

Generally, teachers' differing TE of students can be reflected in their differentiated behaviours which in turn mediate the TE effects by generating the communication of TE cues. Based on individual- and class-level TE, relevant variances are found in teachers' instruction, the learning opportunities and materials they provide, and the socioemotional climate they create in the class. Given that students directly participate in these activities and are immersed in the class climate, how they perceive and react to these TE cues could be the next key part of the mediation chain. Studies have shown that students are sensitive to and capable of perceiving and interpreting teachers' beliefs and emotions beyond teachers' behaviours (Rubie-Davies, 2006), which can further predict students' academic and nonacademic development (Jennings & Greenberg, 2009). As shown in Stage D in Figure 2.2 and explained below, only when students are aware of and react to their teachers' expectations for them, can the influence of TE on student learning and achievement outcomes be finally exerted and realised.

Teachers' Differential Behaviour Related to Their Emotions. According to a recent review by J. Chen (2021), teacher emotions have been identified as a crucial factor in

varying teaching practices and teacher–student interactions. By examining 812 articles from 1985 to 2019, J. Chen identified two major teaching realms that were associated with teacher emotions, namely, teaching methods and classroom management. Briefly, positive emotions were found to predict student-centred teaching approaches and management strategies, whereas negative emotions were related to teacher-centred styles.

In particular, studies with teachers from elementary education to tertiary settings, from various contexts (e.g., Germany, China, and Australia), have shown consistently that teachers with positive emotions interact with their students more effectively and perform more proactively than those with negative emotions (e.g., Arens & Morin, 2016; J. Chen, 2019; Trigwell, 2012). In contrast, more emotionally exhausted teachers have been reported to have lower quality interactions with children (Ansari et al., 2020), less satisfying teaching practices (Arens & Morin, 2016), lower levels of emotional support, and poorer classroom organisation (S. S. Braun et al., 2019). For example, based on the self-report questionnaires of 175 Australian higher education teachers, Trigwell (2012) suggested that teachers with positive emotions tended to choose student-focused teaching approaches whereas teachers with negative emotions would favour transmission approaches. Using similar methods, J. Chen (2019) identified consistent patterns in 1,830 Chinese primary teachers. These patterns appeared to have things in common with the TE effects mentioned above.

In addition to these studies relying on self-report questionnaires, there is also confirming qualitative evidence which has illustrated the reasons underlying why teaching practices related to teacher emotions in certain ways. For example, Saunders (2013) collected interview data from 27 teachers who participated in a 4-year professional development programme. The programme was designed to refine and extend teachers' instructional practice. When examined longitudinally and qualitatively, a generalised and more in-depth pattern of why teacher emotions predicted specific behaviours emerged from the data. For example, as explained by one participant, negative emotions (anxiety and insecurity) prevented her from trying new approaches and instead she adhered to her original practices. As explained by Saunders, influenced by negative emotional experiences, teachers were more likely to implement things in a safe but ineffective way to avoid any potential risks. Similar explanations can be found in recent work by Frenzel et al. (2021), which indicated that negative emotions might stimulate shallow and narrow information processing and immediate actions. Consequently, teachers with negative emotions might be more rigid and less prepared to adopt novel and complex instructional strategies.

Despite these consistent findings, one more thing worth noting here is that it is overly

simplistic to classify the potential effects of teachers' emotions into a binary mode of "good" and "bad" (Frenzel et al., 2021). Again, as mentioned above, teacher emotions should be perceived as a condition that could be nudged, and how teachers respond to their emotions can also be mediated by contextual and personal factors, such as their experiences and teaching beliefs. Mevarech and Maskit (2015), for instance, provided evidence for this argument. Their survey data from 180 Israeli pre- and in-service teachers showed that experienced teachers might navigate their negative emotions more effectively than novice teachers and led to different coping strategies. It seemed that although teachers' behaviours were related to their emotions, how the emotions were finally actualised could vary from individuals. It is therefore important for further explorations to identify the specific factors contributing to teachers' emotional resilience, which will help improve not only teachers' own well-being but also teacher education and professional learning development.

In sum, there are promising findings showing the relation of teachers' behaviours to TE and teacher emotions. The patterns which seemed to share some similarities formed a rationale for this doctoral project to explore these fields further in association.

2.3.4 Stage E: Students' Outcomes Associated with Teacher Beliefs

As mentioned above, teachers' beliefs and emotions have been found to interact with each other (Stage A and Stage B) and predict their behaviours (Stage C). Furthermore, as shown in Stage D in the flow diagram above (Figure 2.2), earlier examinations have revealed that students' perceptions and reactions to teachers' differential behaviours is an integral part of how teachers influence students. Specifically, students are aware of teachers' differing behaviours toward low- or high achievers from a very young age (e.g., Babad & Taylor, 1992). Given that students' perceptions of TE and emotions are beyond the scope of this research, literature related to Stage D is excluded here. This is not to say that this stage is unimportant, rather, it is essential for the effects that follow. Bearing this in mind, this part will move on to the next stage (Stage E) which concerns the role of teacher emotions and teachers' beliefs in student outcomes. In studies where student outcomes have been examined across various educational levels, statistically significant relations have been found and attributed to a number of factors including teachers' beliefs and their emotions. Overall, these two factors are influential in students' development, including their academic achievement (e.g., Agirdag et al., 2013; H. S. Kim, 2015), psychosocial outcomes (e.g., Pesu et al., 2016), and behaviours (e.g., Demanet & Van Houtte, 2012). However, since this doctoral project specifically focused on the relation of students' SC to their HT's TE, only findings related to

this field will be reviewed here. As discussed in earlier sections, it is important to investigate student SC given the existing literature that has established strong ties between that construct and student outcomes during and beyond the schooling years.

Compared to TE effects on students' achievement, how TE influence students' SC has been somewhat neglected. As suggested in S. Wang et al.'s (2018) recent review, only four empirical studies were identified in the field related to TE effects on student SC. Considering the important function of SC in students' further development, this doctoral project particularly focused on the relations between TE and student SC outcomes. Additionally, most of the current studies on TE effects have attended to academic SC (e.g., Pesu et al., 2016; Upadyaya & Eccles, 2015), with little regard to nonacademic SC. Given the important role of nonacademic SC in students' development, such as their social identification (Tarrant et al., 2006), this doctoral research aimed to fill this gap by tracking both academic and nonacademic SC of students whose HTs had different levels of TE. Furthermore, since relations of TE to different components of SC might vary, as shown in the theoretical background in this thesis, this doctoral research explored how, if at all, TE predicted students' academic and nonacademic SC differently.

As described in the theoretical background (Section 2.2), how students' SC is associated with TE cannot be discussed separately from the self-fulfilling prophecy, which became prominent in the education context through the experimental study of Rosenthal and Jacobson (1968). According to the self-fulfilling prophecy, students tend to develop in line with TE (Rosenthal, 1991) regarding their intelligence, achievement, and motivation (Jussim, 1989; Jussim & Harber, 2005). For example, students expected to be high performers have greater improvement in their SC of ability than expected low performers (Jussim, 1989). Following the theory of the self-fulfilling prophecy, some studies have found that TE influence the formation and alteration of student SC (M. Zhu & Urhahne, 2015). However, as the examples below show, most of these studies were conducted within earlier educational levels (e.g., elementary school contexts; Gentrup et al., 2020). This trend can be partly understood in relation to the hypothesis that older students might be more resistant to biased TE than children in lower year levels (Y.-H. Chen et al., 2011; Jussim, 2012). For example, by tracking and comparing the changes in the self-perception of 256 elementary students in different TE classes across a year, Rubie-Davies (2006) found that students' self-perceptions changed over the year in line with their TE, with no statistically significant differences in student baseline self-perceptions. Consistent findings have also emerged in studies conducted in other contexts. Using latent growth curve models, Upadyaya and Eccles (2015) followed

849 elementary students in south-eastern Michigan and their teachers for 4 years, and found that TE predicted both students' concurrent and subsequent SC in reading and mathematics, controlling for students' achievement and general verbal intelligence. Similar results have also been observed in the Chinese foreign language-learning context (M. Zhu & Urhahne, 2015). Based on data from 505 fifth-grade students and their English teachers in Beijing, M. Zhu and Urhahne (2015) found a lower English SC in students who were underestimated by their teachers, despite the same levels of achievement. Furthermore, there are other researchers who have confirmed the existence of TE effects on student SC, even though they have underscored individual variations in such associations. For example, the Finnish work by Pesu et al. (2016) explored positive associations between TE and student SC of ability in reading and mathematics for high achievers but not for low achievers.

Further, when examining the literature of TE effects on student outcomes in more depth, the magnitude of TE effects has been found to vary, which, for instance, may be related to students' background or the particular knowledge domain or student achievement levels (S. Wang et al., 2018). Briefly, despite a small number of inconsistent findings (e.g., de Boer et al., 2010; Speybroeck et al., 2012), previous studies have been broadly in line with the conclusion that stigmatised groups are more susceptible to negative TE effects. As explained by Madon et al. (1997), children from stigmatised groups (such as low achievers) might have lower abilities and less faith in their potential. Alongside these factors, teachers' negative feedback might undermine these students' motivation and hence make them find school life even more difficult and unpleasant. More importantly, compared to those who firmly believe in their abilities, children from stigmatised groups may be more unsure about their own performances, which may lead them to more easily internalise the TE. As such, it is arguable that these students might be more vulnerable to negative TE effects. For example, students with lower SES background, and minority ethnicity could be more susceptible to TE effects and thus there is an increasing possibility for them to conform to the typical lower TE (Z. Li, 2014). In particular, regarding the moderators of TE effects, the review by Jussim et al. (1996) found that TE effects were stronger for girls, students with lower SES background, and African American students. Similarly, based on TE data from 30 teachers (10 each in Grades 1, 3, and 5) in 12 San Francisco Bay Area urban elementary schools and achievement data from 561 children, McKown and Weinstein (2002) found that two groups (African American students generally, and girls in mathematics) were more frequently subjected to unfavourable TE. This finding reveals an important message that the stigmatised groups referred to above should not only be explored in relation to student characteristics (e.g.,

gender, ethnicity, SES), but also be considered in terms of specific subjects (e.g., girls in mathematics and boys in reading). This finding was further supported by the study of Hinnant et al. (2009). Based on a longitudinal study which followed children at 10 different geographic sites from birth to fifth grade, Hinnant et al. reported an important three-way interaction between student gender, ethnicity, and TE in specific knowledge domains. Briefly, in terms of reading ability, they found that TE effects on ethnic-minority boys were stronger than those for students from the ethnic-majority or -minority girls, whereas students from low-income backgrounds were more susceptible to TE effects in the math domain. Following these findings, S. Wang et al. (2018) proposed an interesting point in their review: in addition to being an outcome of TE, students' SC should also be considered to, in turn, mediate TE effects on student outcomes. However, as suggested by S. Wang et al., no study could be identified which had investigated the entire mediating process of TE effects regarding SC. Although the mediating factors influencing the magnitude of TE are not explored in this thesis, the possibility of the variance of TE effects in different components of student SC is a particular focus.

Despite several longitudinal studies (e.g., Hinnant et al., 2009) having been identified, as suggested by S. Wang et al. (2020), there are relatively few studies tracking the TE effects in the context of the same teachers and students for a long time, because teachers and classrooms change every semester or year (e.g., students usually have different teachers every year) and multiple teachers teach different subjects in a classroom. This doctoral project addressed these concerns and contributed to longitudinal studies in this field by exploring HTs who account for students' overall performance in all subjects and with whom the students spend most of their school time for several years; hence, students could be more easily and deeply affected by HTs' expectations. Additionally, given HTs' basic commitments, they may play a more crucial role in students' nonacademic development than subject teachers. Thus, this group could serve as a lens to uncover the differences, if any, in the associations between TE and students' academic and nonacademic SC. This will contribute to an advancement in the field.

According to Ogle et al. (2016), every learning opportunity in schooling contributes to students' knowledge not only about the outside world, but about themselves and their associations with it. To foster student achievement, it is important for them to develop a positive SC and build corresponding skills, attitudes, and characters (such as the ability to navigate through the challenges and keep growing in the face of adversity). Existing literature indicates that these abilities need not be learnt solely from previous achievement in school,

instead, they can be learnt whenever and wherever a child has opportunities to succeed and learn that they can do so. As such, it is undeniable that, compared to subject-related activities with regular teachers, these fields could be more easily impacted by the intimate interactions between students and their HTs, a group highlighted in this research.

2.4 Literature Gaps and the Current Research

2.4.1 Literature Gaps

A number of gaps in the literature have been signalled throughout the review above. These gaps constituted the basis for this doctoral project. This section closes with deliberations about methodological challenges and other controversial issues as well as their implications for the directions and scope in the research.

Firstly, previous research into teachers' experiences has mostly been concerned with the entire group of teachers. The particularity of HTs has been rarely mentioned in earlier studies, let alone in the TE field. Some HTs' characteristics could be missed by the data collected from entire teaching staff, particularly in the context of the Chinese high school, where differences between HTs and regular teachers are especially prominent regarding their roles and responsibilities. Thus, further investigations need to be conducted to promote understanding of Chinese HTs' beliefs and their experiences in their lives and work.

Secondly, compared to research exploring individual student-level TE, studies attending to class-level TE are relatively sparse. Additionally, even the existing research on TE effects show inconsistent conclusions in both Western (e.g., Archambault et al., 2012; Friedrich et al., 2015) and Chinese contexts (e.g., Z. Li & Rubie-Davies, 2017). Meanwhile, empirical research on the role of TE as being related to teaching practices is especially scarce in the Chinese context. Bearing in mind that TE and their emotions and how individuals react to these two factors are mediated by the sociocultural context, there is a need for further studies to be conducted in the Chinese context to better understand the effects of teacher emotions and class-level TE.

Thirdly, there is an underrepresentation of a theoretical and empirical body of work that distinguishes how TE interact with emotions. Although previous literature implies that these two factors are related inextricably to students' development and teachers' own professional experiences, there is a dearth of research investigating these two factors in combination. Therefore, this doctoral project is of great value for teasing out a deeper and more holistic understanding of how class-level TE interact with teachers' emotions and how this interaction impacts their teaching practices and student outcomes.

2.4.2 Current Research

As a result of, and in response to, the gaps identified above, this doctoral project extended the current research in five ways: (1) focusing on the relations between teachers' emotions (joy, pride, love, anger, fatigue, hopelessness, and anxiety) and TE; (2) investigating the relations of TE with students' academic and nonacademic SC; (3) shifting attention from TE effects only on students to both students and teachers; (4) conducting a project in the Chinese high school context; and (5) attending to the group of Chinese HTs, who are connected intensely with students, parents, and other subject teachers.

This project, therefore, employed a mixed-method sequential explanatory design underpinned by five interconnected research questions. Three studies, as guided by the research questions below, were carried out as part of this doctoral project. The research questions were:

RQ1: Do HTs' expectations predict their emotions and, if yes, how?

RQ2A: In what ways, if any, do HTs with different levels of TE show different patterns of emotions?

RQ2B: In what ways, if any, do HTs with different levels of TE and corresponding emotions respond to scenarios differently?

RQ3A: Are there any relations between the SC outcomes of students and their HTs' expectations of them?

RQ3B: If students' SC is associated with their HTs' expectations of them, are there any differences in the associations with different domains of SC?

The research context of the project was senior high schools in a city in Southern China. A typical Chinese senior high school class normally comprises 40 to 50 students (approximately 16–19 years of age) who are taught by the same group of teachers usually for at least 1 academic year (one teacher teaches one subject). In most cases, one of these teachers is the HT of the class. Students usually stay in the same class with the same HT for at least 1 academic year in their senior high school period but often stay with the same HT throughout senior high school.

Built on the review of the literature, the following three chapters will present the three studies designed to address the corresponding research questions above. Chapter 3 details the first study, which used questionnaires to explore the relations between TE and emotions. Teacher participants were categorised with respect to their TE into groups of high-expectation teachers (HiExTs), medium-expectation teachers (MeExTs), or low-expectation teachers (LoExTs). Chapter 4 presents the second study, which elaborated the findings of Study 1 by

interviewing HTs about the interactions between their TE, emotions, and their teaching practices. Following the second study, Chapter 5 presents the third and final study, which tracked the academic and nonacademic SC outcomes of students in the homeroom classes of earlier HT participants. A discussion of the limitations and future research directions is included at the end of each study as well as in the final chapter. Lastly, a general discussion of the findings from all three studies is presented in Chapter 6, including a discussion of the significant contributions that this doctoral research adds to the theoretical and empirical body of the existing literature.

Chapter 3: Study 1
How Does it Feel to be a Homeroom Teacher? Relations Between Teacher Emotions and Expectations

This study was designed to explore the relations between TE and teacher emotions in the Chinese senior high school setting. Controlling for students' prior achievement, HT's expectations of their homeroom students in three major subjects were measured. Additionally, HT's emotions were explored to see if they were related to TE. The overarching research question pertaining to the current study was: do HTs' expectations predict their emotions and, if yes, how?

3.1 Method

3.1.1 Participants

HTs of high school students were invited to complete a questionnaire on their emotions and expectations. A total of 142 HTs (a response rate of 44.24%) from 16 schools agreed to participate, ranging from 1 to 31 teachers per school. Among them, 135 teachers completed both questionnaires on their emotions and expectations whereas 7 teachers participated in the emotion questionnaire only. Specifically, no data on TE were reported from two of 16 schools, and, considering that TE was an essential component of this study, the data from these teachers were not included. Therefore, the final sample size was 135 HT participants from the remaining 14 schools. Additionally, students' achievement scores were collected as part of the measure of TE. With the permission of the schools and the students, the researcher collected students' scores in those 135 teachers' homeroom classes.

The sample consisted of 42 HTs from Grade 10 (31.1%), 60 HTs from Grade 11 (44.4%), and 33 from Grade 12 (24.4%). Of these 135 participants, 77.8 % were female teachers (n = 105), reflecting the gender imbalance among HTs at the high school level (Z. Zhao, 2014). Additionally, the sample echoed the trend that the age of HTs in high schools was younger rather than older as a response to the shortage of HTs (X. Zhu & Liu, 2004), that is, most participants (n = 102, 75.6%) were less than 40 years old, among whom 71 participants (52.6%) were less than 36 years. Finally, consistent with the literature that most HTs teach major courses (T. Wang & Yang, 2021), 24.4% of HT participants were teaching Chinese (n = 33), 23.0% were teaching mathematics (n = 31), and 28.9% were teaching English (n = 39).

3.1.2 Measures

The questionnaire used in the current research was developed based on studying the literature and existing, reliable, and valid instruments, which included: (1) a demographic section designed to collect data about the teachers' basic information (e.g., age, gender, and teaching subjects); (2) the Teacher Emotion Questionnaire (TEQ; Burić et al., 2018) and (3) a teacher expectation survey (Rubie-Davies et al., 2006). All details related to these measures is presented below.

Teacher Demographic Characteristics. In addition to basic information (class number) for the purpose of pairing the data of HTs and their students, other demographic characteristics were also collected, including teacher gender, educational background, age, teaching experience, teaching subjects, and the number of students in their homeroom classes.

Teacher Emotions. To measure teacher emotions, the instrument for this study was an adaptation of the TEQ (Burić et al., 2018), a self-report multidimensional instrument. Although self-report has been criticised for its reliance on the participants' ability and willingness to participate and respond to the questionnaire (Pekrun & Linnenbrink-Garcia, 2014), it is one of the most helpful, efficient, and accurate measure of cognitive and subjective components of emotion. As explained by Burić et al. (2018), in addition to the precise assessment of these two components of emotion, self-report is also useful in measuring other components (i.e., motivational, physiological, and expressive) that can be available to human consciousness.

As a tool to measure teachers' discrete trait emotions, TEQ consisted of six scales, namely Joy, Pride, Love, Anger, Fatigue, and Hopelessness (see Table 3.1 for sample items and see Appendix A for the whole questionnaire). The TEQ's validity and reliability have been demonstrated through a series of five studies that relied on both qualitative and quantitative methods, as well as exploratory and confirmatory factor analytical approaches (Burić et al., 2018). Additionally, as echoed by Lazarus (1991), and Sutton and Wheatley (2003), anxiety is often associated with the complexity of tasks and uncertainty of achieving goals. Given the unique commitment to care and open-ended nature of HTs, anxiety was regarded as a necessary emotion to measure in this study. Therefore, the "Anxiety" scale from the Teacher Emotions Scales (TES; Frenzel et al., 2016) was added to the questionnaire used in this research.

Respondents in this study were asked to indicate their level of agreement with each item of the emotion scales on a 7-point Likert scale (1 = *strongly disagree*, 2 = *disagree*, 3 =

slightly disagree, 4 = *neither agree nor disagree*, 5 = *slightly agree*, 6 = *agree*, and 7 = *strongly agree*). It is important to note that, in order to tap emotions as a more stable trait-like construct, HTs were asked to rate how they usually or typically felt when teaching and interacting with their students.

To be adapted for use in the current context, the original English version was translated into Chinese so that it was better understood by the Chinese participants. To guarantee appropriate translation, a separate translator was invited to back-translate the questionnaire from Chinese to English, and appropriate changes were then made before the questionnaire was distributed to the Chinese participants (Alreck & Settle, 1995).

Table 3.1

All Scales and Sample Items for the Teacher Emotion Questionnaire

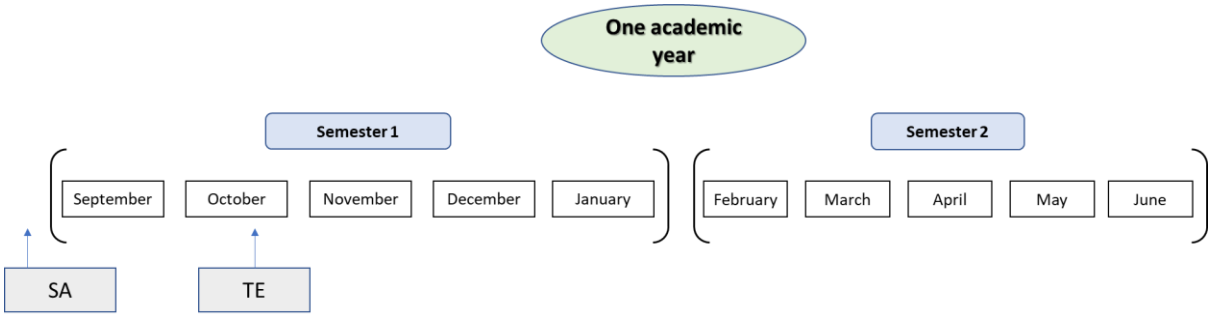
Scales	Number of items	Cronbach alpha reliabilities across studies	Sample items
Joy	5	.80–.87 (Burić et al., 2018)	I am glad when I achieve teaching goals that are set.
Pride	6	.84–.87 (Burić et al., 2018)	I feel like a winner when my students succeed.
Love	6	.90 (Burić et al., 2018)	I feel warmth when I just think about my students.
Anger	5	.77–.82 (Burić et al., 2018)	The reactions of some students frustrate me so much that I would rather just quit the job.
Fatigue	7	.89–.91 (Burić et al., 2018)	My job sometimes makes me so tired that all I want to do is “switch off.”
Hopelessness	6	.84–.88 (Burić et al., 2018)	I feel I cannot do anything more to correct the behaviour of some students.
Anxiety	4	.70–.81 (Frenzel et al., 2016)	I feel tense and nervous while teaching my students.

Teacher Expectations. In addition to the emotion questionnaire, at the beginning of the academic year (October), HT participants were also invited to rate their expectations for each student’s academic achievement at the end of the academic year (June), without referring to school records. The measure of TE was conducted around 8 weeks after the school year started, which allowed time for HTs to get to know their students and form expectations of them (see Figure 3.1). This decision was made following the suggestions of

Raudenbush (1984) that teachers tend to form their expectations within the first 2 weeks of school and the TE are then fairly stable after the initial formation.

Figure 3.1

Time Nodes for The Teacher Expectations and Student Achievement Data Collection



Note. TE = teacher expectations, SA = student achievement.

Given that HTs were responsible for students' performance in all subjects rather than just the one they were teaching, the TEs assessed here were the ones for students' academic achievement in three major subjects (mathematics, English, and Chinese). The HT participants were asked to rate their expectations for their students' achievement in the school-year final examination based on a teacher expectation survey scale adapted from Rubie-Davies et al. (2006). The choices for the expected score were divided into 10 levels, covering the range of scores from 60 to 150 (the total score), namely, Level 1 (below 60), Level 2 (60–69), Level 3 (70–79), Level 4 (80–89), Level 5 (90–99), Level 6 (100–109), Level 7 (110–119), Level 8 (120–129), Level 9 (130–139), and Level 10 (140–150). Teacher participants were invited to choose the level that they believed each student would achieve at the end of June when the academic year ended (see Appendix A). Next, teachers' ratings were compared with students' actual achievement at the beginning of the semester (their scores in the latest final examination), as shown in Figure 3.1. More details related to the measure of student achievement are included below. Next, the researcher regressed TE onto actual achievement to obtain the standardised residuals. This method has been widely used in previous teacher expectation research (e.g., S. Wang et al., 2020). In doing so, the data indicated the degree to which teachers were over- or underestimating their students relative to actual achievement.

Further, as shown in the results section below, by using cluster analysis, the statistics program (SPSS) helped categorise the teachers into groups of HiExTs, MeExTs, and LoExTs. Instead of relying on a cut-off (e.g., 0.5 SD above or below) to group teachers, a cluster analysis was adopted because it is a statistically robust method of grouping individuals with

similar characteristics (e.g., teachers with similar class-level TE in this thesis), which has been used in previous TE research (Z. Li & Rubie-Davies, 2017). Specifically, HiExTs had expectations that were significantly above student actual-baseline achievement, whereas LoExTs' expectations were well below student actual achievement. This categorisation not only helped the researcher to uncover the relations between teacher emotions and different levels of TE, but also served to inform the interview questions for the second study and became a foundation for the third study.

Student Achievement. As shown in Figure 3.1, each academic year consists of two semesters in participating schools: Semester 1 from September to January, and Semester 2 from February to the end of June. There are two examinations in each school term: one in the middle and one at the end of the school term. The scores used as student baseline achievement were from the final examination conducted in the last semester of the previous academic year (see "SA" in Figure 3.1). For Grade 10, the scores were from their senior high school entrance examination (*zhong kao*), which is citywide and uses uniform examination papers and uniform marking. For Grades 11 and 12, the scores were from their school-based examinations, which were uniform in each school.

3.1.3 Procedures

Ethical approval was first gained for this study (Ref. 024436) from the University of Auckland Human Participants Ethics Committee (UAHPEC). Then, an email invitation was sent out to 41 randomly selected principals in the city. These invitations included participant information sheets (PISs) that described the overall aims of the doctoral project, as well as consent forms (CFs) to be signed and returned if principals consented for the research to take place with HTs and students enrolled in their schools (see Appendix B). In total, 16 (39%) principals responded agreeing to participate.

After receiving the contact list of HTs from the principals, the researcher approached the HTs by sending them an invitation letter along with the PISs and the Qualtrics link to the questionnaire (see Appendix B). Of the HTs (n = 321) who were contacted, 44.24% (n = 142) consented to participate. However, as suggested earlier, only 135 HTs of these 142 participants finished the complete questionnaire (all three components: demographic information, emotions questionnaire, and TE) whereas 7 of them did not complete the teacher expectation survey, and, therefore, were not included.

After confirming participation with the HT, the researcher asked them to send the PISs to their students or their parents (if the student was less than 16 years old) in their class.

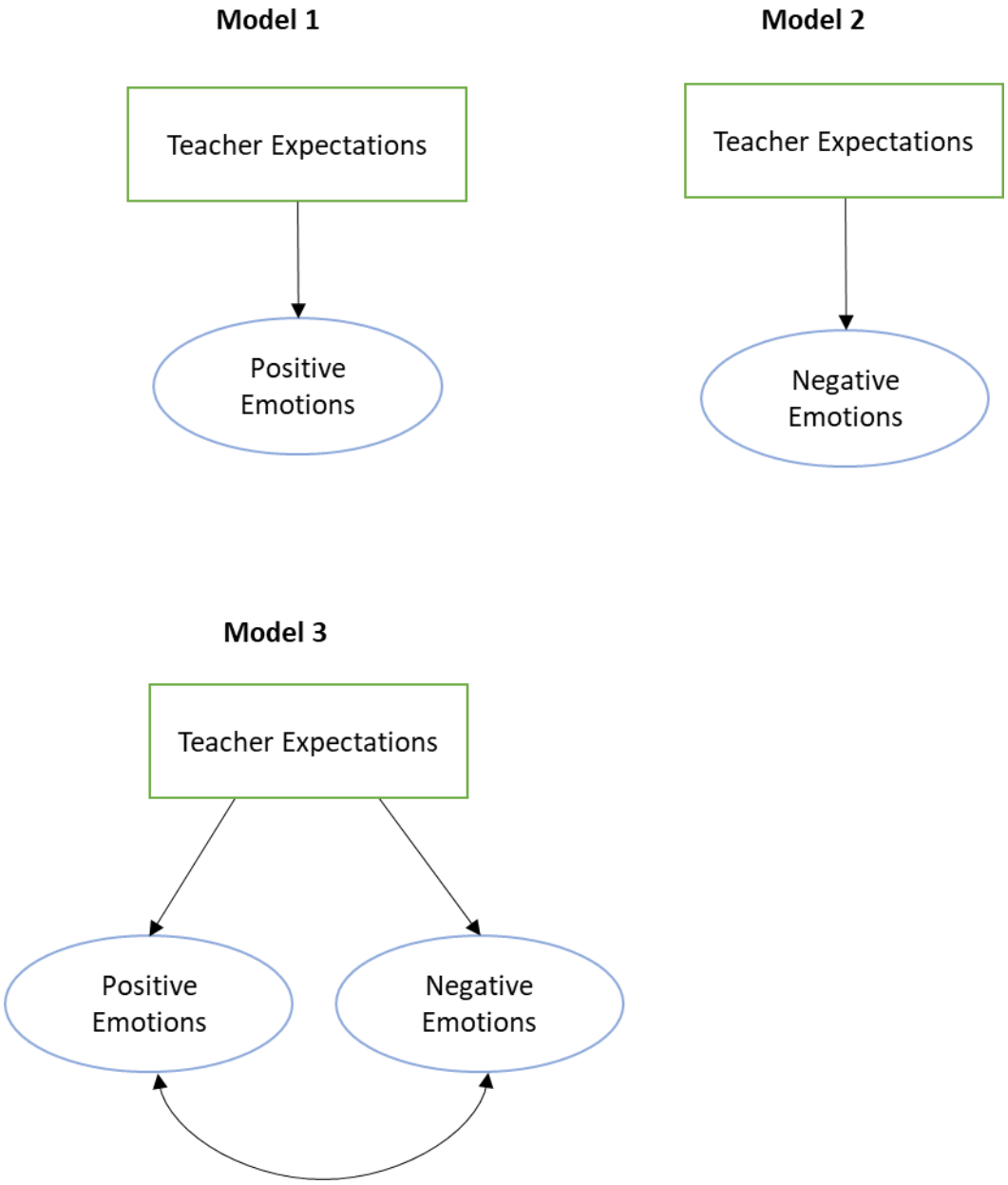
The information sheets for students included a brief account of the research project, its aims and duration, and what was expected of participants (see Appendix B). This meant that students needed to self-select to be involved in the study. Specifically, students' participation in the current study (Study 1) only involved sharing their scores (mathematics, Chinese, and English) in the latest exam. Due to the impact of COVID-19, it was impossible for the researcher to collect students' data in their classes. Hence, students were asked to complete their student number and scores on a Qualtrics link. The student number was used to pair achievement data and teachers' data as a measure of TE. If students were unwilling to share their scores, they could just ignore the link and then the researchers received no access to their scores. As a result, the researchers were able to acquire student scores from all 135 teacher participants who completed the whole questionnaire.

3.1.4 The Conceptual Model

Given the literature review and research question related to this study (see Chapter 2), three conceptual models were proposed and empirically tested in the current study. As shown in Chapter 2, TE, as a component of teaching beliefs, are believed to be involved in both appraisal processes of situations and are further related to teachers' decisions on which emotions to follow (see details in Chapter 2). Following this view, three conceptual models below posit that TE may be related to their positive and negative emotions respectively, and as a whole (Figure 3.2). The researcher recognised that the relations shown in the models below could be bi-directional, however, given that TE was the overarching construct of interest in the current thesis, the purpose of this study was to explore the degree to which TE predicted teacher emotions.

Figure 3.2

Conceptual Models Showing the Hypothesised Relations Between the Variables Investigated in This Study



3.2 Data Analysis Plan

3.2.1 Analysis Plan of The Teacher Expectation Survey

TE were calculated by regressing teachers' ratings onto students' standardised achievement data. Then, to identify possible numbers of teacher groups with different TEs, cluster analysis was conducted in SPSS 23 to aggregate the 135 HTs according to the expectations each HT held for the students in their homeroom class. Ward's method and K-

means cluster analysis were used to classify teachers into different expectation groups that had high internal (within-cluster) homogeneity and high external (between-cluster) heterogeneity.

3.2.2 Analysis Plan of The Teacher Emotion Questionnaire

Using AMOS, data analysis of the TEQ was carried out by using 1) CFA consisting of first-order and second-order factors, and 2) SEM techniques based on the maximum-likelihood estimation method.

A first-order CFA was first conducted to confirm the structure of each scale and their variables. Then, a second-order CFA was conducted respectively for the *positive emotions model* and *negative emotions model.* The following advantages led to the decision on the second-order model. Firstly, it allows assessments of the patterns between the first-order factors and the second-order factors. Secondly, it offers a theoretically error-free estimate of particular factors (F. F. Chen et al., 2005). Furthermore, while maintaining measurement accuracy, the second-order model meaningfully decreases the quantity of variables which are required to be estimated (Koufteros et al., 2009).

Conducting a CFA first was important to verify that each measurement model, leading to the final structural equation model, showed good model fit and represented the data well. Based on the CFA results, means and standard deviations for the questionnaire factors were calculated, along with McDonald's ω reliability estimates and Pearson's bivariate correlations. These preliminary descriptive analyses were then followed by examining the relations between the variables investigated in this study using SEM techniques. The results of these tests are presented in the results section which follows. All analyses in this study were conducted using the statistical software IBM SPSS Statistics 23 and AMOS 27.

Additionally, this study followed the guidelines suggested in the literature (e.g., Schreiber et al., 2006) on how to carry out and report results from CFA or SEM techniques. These include (1) clear and succinct research questions that dictate the use of CFA and SEM; (2) a clear theoretical rationale that drives the empirical model; (3) sufficient descriptive statistics that allow future researchers to reproduce the analyses; (4) graphical representation of the hypothesised and final models used in the SEM; (5) parameter estimates (e.g., standardised regression weights and squared multiple correlations), including a range of goodness-of-fit indices to assess model specification and the extent to which the hypothesised model fits the data collected; (6) information on any modification procedures made before

proceeding with the analyses; and (7) a discussion of the implications or inferences made from the CFA or SEM results.

Despite the controversy on the best fit indices to describe model specification, there is a consensus to use a range of indices so that the limitations or biases of one index can be covered by another (Gallagher & Brown, 2013). For example, the root mean square error of approximation (RMSEA) is influenced by model parsimony (i.e., higher RMSEA values are found for more complex models), whereas the comparative fit index (CFI) and Tucker-Lewis index (TLI) are affected by sample size and degrees of freedom (i.e., lower CFI and TLI values are found in smaller sample sizes; Meade et al., 2008). Further, chi-square values and significance of normed chi-squared (χ^2/df) values are found to be sensitive to sample size (e.g., Hooper et al., 2008; Kyriazos, 2018). In this regard, a range of fit indices (χ2/df, TLI, CFI, SRMR, and RMSEA) will be reported in the results section of this chapter. As shown in Table 3.2, the acceptable levels of each of those indices were adopted from a number of reviews as listed below on goodness-of-fit indices and were used to determine the fit of the measurement and structural equation models presented in the results section.

Table 3.2

Acceptable Levels of Fit Indices Regarding CFA

Indices	Perfect fit	Good fit	Rationale
X^2/df	X^2/df≤ 2	X^2/df≤ 3	R. B. Kline, 2015
RMSEA	RMSEA ≤ .05	RMSEA ≤ .08	Hooper et al., 2008
SRMR	SRMR ≤ .05	SRMR ≤ .08	Brown, 2015
			L. Hu & Bentler, 1999
NNFI (TLI)	NNFI ≥ .95	NNFI ≥ .90	Tabachnick & Fidell, 2007
			B. Thompson, 2004
CFI	CFI ≥ .95	CFI ≥ .90	L. Hu & Bentler, 1999
			Tabachnick & Fidell, 2007

3.3 Results

3.3.1 Identifying Teachers with Different Levels of Teacher Expectations

Standardised Scores for the Previous Final Examinations in Chinese, Mathematics, and English. Given that achievement data involved three subjects and they were collected from different schools, student scores were standardised by calculating *Z*-scores to make achievement data from different examinations comparable. In doing so, all the achievement scores had a mean of 0 and a standard deviation of 1 regardless of the subjects and examinations. Consistent with the suggestions of H.-Y. Kim (2013) and T. Kline (2005), the distribution analysis indicated that all the standardised achievement data in this research

were well within the guidelines for acceptable skewness (< 2) and kurtosis (< 5) ranging from -1.95 to 0.78 for skewness and -2.56 to 4.60 for kurtosis.

Class-Level Teacher Expectations (Relative to Achievement). Before calculating class-level TE, the researcher first investigated the levels of expectations held by each HT for the individual students in their homeroom class, regarding their performance in each subject (mathematics, Chinese, and English). Single-level regression was conducted where TE (their ratings in the survey) were the dependent variable and student baseline achievement (standardised previous final examination scores) was the independent variable. Each resulting standardised residual was regarded as the extent to which each HT under- or overestimated each of their students' performance in specific subjects.

Based on the standardised residuals mentioned above, class-level TEs were then calculated by averaging the residuals for each HT (see Table 3.5 below for the class-level residuals for all participant HTs). For example, after the regression, one HT (No. 2) yielded 28 residuals for her students in Chinese, 28 for mathematics and 28 for English. Then, the class-level TE of this HT was the average of these 84 residuals. This method has been used in earlier research as a measure of class-level TE (Z. Li & Rubie-Davies, 2017). Since one HT was responsible for one homeroom class in the Chinese context, the mean standardised residuals for each HT were the same as the class-level TE (relative to achievement).

Grouping Teachers of Similar Expectation Levels. This study adopted Ward's method and K-means cluster analysis to identify HiExTs, MeExTs, and LoExTs. Firstly, to identify the optimal number of clusters, the researcher adopted Ward's method which is an efficient and the most widely-used method (Hair et al., 2013). The agglomeration schedule provided a solution for every possible number of clusters for these 135 teachers. The changes in the agglomeration coefficient between a particular stage and the next combination were calculated (see the last column in Table 3.3). As suggested by Hair et al. (2013, 456-462), when larger increases in heterogeneity (the agglomeration coefficient) emerged in moving from one stage to the next, the prior cluster solution should be chosen because the new combination would join quite different clusters. Following this view, as shown in Table 3.3, there was a rather large increase in heterogeneity in moving from Stage 132 to Stage 133, with coefficient differences of 17.798. Hence, the possible final solution for this study was to cluster HTs by their expectations into three clusters.

Table 3.3

Agglomeration Coefficients of Clustering the Average Residuals Using Ward Method (n = 135)

Stage	Number of clusters	Agglomeration coefficient next stage	Agglomeration coefficient this stage	Difference
125	10	2.138	1.728	0.410
126	9	2.873	2.138	0.735
127	8	3.695	2.873	0.822
128	7	5.100	3.695	1.405
129	6	7.650	5.100	2.550
130	5	10.659	7.650	3.010
131	4	17.100	10.659	6.441
132	3	34.898	17.100	17.798
133	2	112.174	34.898	77.276
134	1	-	112.174	-

Next, to determine which particular HTs belonged to each cluster, the researcher re-ran the clustering using the K-means clustering method ($K = 3$). The K-means algorithm yielded three clusters of HTs with distinguishable expectations (*Cluster 1* ≥ 1.06, *Cluster 2* = [-0.10, 0.97] and *Cluster 3* ≤ -0.20). Table 3.4 shows the number of HTs in each group, where the mean, median, and standard deviation for each group were also provided.

Finally, a one-way ANOVA and post hoc tests were conducted with TE as the dependent variables. The results of the ANOVA test revealed statistically significant group differences in expectations, $F = (2,132) = 397.47$, $p < .001$. The post-hoc Scheffé test showed that all three groups were statistically significantly different from each other (all $p < .001$).

Thus, as suggested by the cluster analysis, three teacher groups could be identified that were then called the Overestimation group, Near-accurate-estimation group, and Underestimation group. As shown in Table 3.4, according to the HTs' different levels of overall TE for students in their homeroom classes, HTs from the Overestimation group, the Near-accurate estimation group, and the Underestimation group were respectively identified as HiExTs ($n = 22$), MeExTs ($n = 62$), and LoExTs ($n = 51$).

Table 3.4

Cluster Analysis Results of Teacher Expectation Groups Based on Average Residuals (n = 135)

		Teacher Group		
Clustering result	All	Cluster 1 Over	Cluster 2 Near-accurate	Cluster 3 Under
N	135	22	62	51
Mean	.17	1.61	.45	-.78
SD	.91	.42	.29	.38

Note. Over = overestimation teacher group; near-accurate = near-accurate-estimation teacher group; under = underestimation teacher group.

Table 3.5

Mean Teacher-Level Teacher Standardised Residual Values (Relative to Achievement) (n = 135)

Teacher ID	TE	Teacher ID	TE	Teacher ID	TE	Teacher ID	TE
1	-.98	41	.16	81	-.70	121	.97
2	-.60	42	1.30	82	.12	122	.64
3	-1.60	43	-.10	83	.51	123	.54
4	-.48	44	.44	84	-.51	124	.54
5	-1.61	45	-.93	85	-.57	125	.57
6	-1.03	46	-.63	86	.31	126	.40
7	-.63	47	-1.36	87	-.01	127	.51
8	.23	48	-.94	88	.49	128	.59
9	-.30	49	-.78	89	-.69	129	.58
10	.77	50	-.85	90	.58	130	.66
11	.70	51	-1.75	91	-.73	131	-.45
12	.30	52	-1.34	92	-.76	132	.78
13	.38	53	.18	93	-.70	133	.68
14	1.15	54	.71	94	-.37	134	.70
15	.76	55	-.28	95	.56	135	-.65
16	.00	56	-.76	96	.69		
17	.58	57	.22	97	-.55		
18	.24	58	-1.22	98	-.05		
19	1.45	59	-.23	99	-.10		
20	-1.41	60	.33	100	-1.22		
21	-1.10	61	.43	101	-.26		
22	-1.22	62	1.11	102	-.93		
23	2.19	63	-.58	103	-.10		
24	.76	64	1.69	104	-1.17		
25	1.21	65	1.16	105	-.03		
26	1.52	66	.37	106	.78		
27	1.21	67	.92	107	.81		
28	1.89	68	.45	108	-.56		
29	1.93	69	1.76	109	.64		

Teacher ID	TE	Teacher ID	TE	Teacher ID	TE	Teacher ID	TE
30	.53	70	-.09	110	-.47		
31	2.05	71	-.31	111	.45		
32	1.65	72	-.53	112	.87		
33	.51	73	-.76	113	-.20		
34	1.12	74	-1.04	114	.54		
35	.48	75	-.73	115	-.41		
36	1.62	76	-.94	116	.38		
37	2.27	77	-.10	117	.54		
38	1.06	78	2.51	118	-.52		
39	1.58	79	.31	119	-.44		
40	1.89	80	.35	120	.85		

Note. TE = teacher expectation. Overestimations are presented in red (based on the cluster analysis). Underestimations are shown in green.

3.3.2 The Measurement Model on Teacher Emotions (Confirmatory Factor Analysis)

First-Order CFA: Validating Each Subscale in The Teacher Emotion Questionnaire. To establish the factor structure of the teacher emotion questionnaire, each subscale (namely, Joy, Pride, Love, Anger, Fatigue, Hopelessness, and Anxiety) was examined first using a CFA technique. In first-order CFA, a latent variable is measured based on several indicators that can be measured directly (see Figure 3.3 for an example of the CFA model of Joy). In doing so, items were dropped if: (1) the item's factor loadings were less than 0.40, or (2) one (redundant) item in a pair of items had high residual covariance (mostly due to similar wording or content). This procedure resulted in omitting six items from the original 39 items (resulting in the following items removed for each subscale: Joy 1, Pride 4, Pride 6, Love 4, Love 5, and Fatigue 3). Table 3.6 below describes the fit indices for these seven models, each of which had at least three items and showed acceptable fit to the data. Therefore, these seven factors were retained for further analyses (see Table 3.7 for a list of all remaining items measuring each scale).

Figure 3.3

CFA Model of Joy Showing the Standardised Regression Weights for Each Item

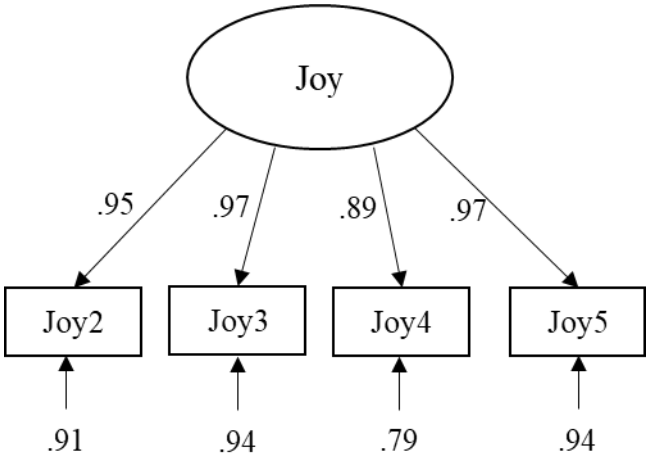


Table 3.6

Goodness-of-Fit Indices for Each Subscale in Teacher Emotion Questionnaire

	$\chi 2$ (df)	$\chi 2$/df	TLI	CFI	SRMR	RMSEA
Acceptable Values	$p > .05$	< 3	> .90	> .90	< .08	< .08
Joy	2.798 (2) $p > .05$	1.399	0.997	0.999	0.0049	0.055
Pride	3.327 (2) $p > .05$	1.663	0.993	0.998	0.0094	0.070
Love	5.336 (2) $p > .05$	2.668	0.987	0.996	0.0060	0.112
Anger	8.274 (3) $p > .05$	2.758	0.964	0.989	0.0277	0.062
Fatigue	17.473(9) $p > .05$	1.941	0.978	0.987	0.0269	0.084
Hopelessness	11.509(9) $p > .05$	1.279	0.992	0.995	0.0202	0.046
Anxiety	1.179(1) $p > .05$	1.179	0.998	1.000	0.0073	0.037

Table 3.7

Teacher Emotion Subscales and Items Following the CFA Results

Scales	**Items**		
Joy	1	Joy 2	I am joyful when the class atmosphere is positive.
	2	Joy 3	I am happy when I manage to motivate students to learn.
	3	Joy 4	I am happy when students understand the material.
	4	Joy 5	Exerting a positive influence on my students makes me happy.
Pride	5	Pride 1	I feel like a winner when my students succeed.
	6	Pride 2	Due to my students' achievements, I feel as if I am "growing."
	7	Pride 3	I am filled with pride when I make a student interested in my subject.
	8	Pride 5	When I am proud of my students, I feel that my confidence is growing.
Love	9	Love 1	I feel warmth when I just think about my students.
	10	Love 2	I love my students.
	11	Love 3	My students evoke feelings of love inside me.
	12	Love 6	I honestly care about each of my students.
Anger	13	Anger 1	I sweat from frustration when the class does not operate in the way that I want it to.
	14	Anger 2	The reactions of some students frustrate me so much that I would rather just quit the job.
	15	Anger 3	The frustration I feel while working with students undermines my job motivation.
	16	Anger 4	Some students make me so angry that my face goes red.
	17	Anger 5	I get an anger-caused headache from the behaviour of some students.
Fatigue	18	Fatigue 1	At the end of my working day, I just want to rest.
	19	Fatigue 2	When I finish classes, I feel numb.
	20	Fatigue 4	Due to the speedy pace of work, at the end of the day I feel as if I am going to fall down.

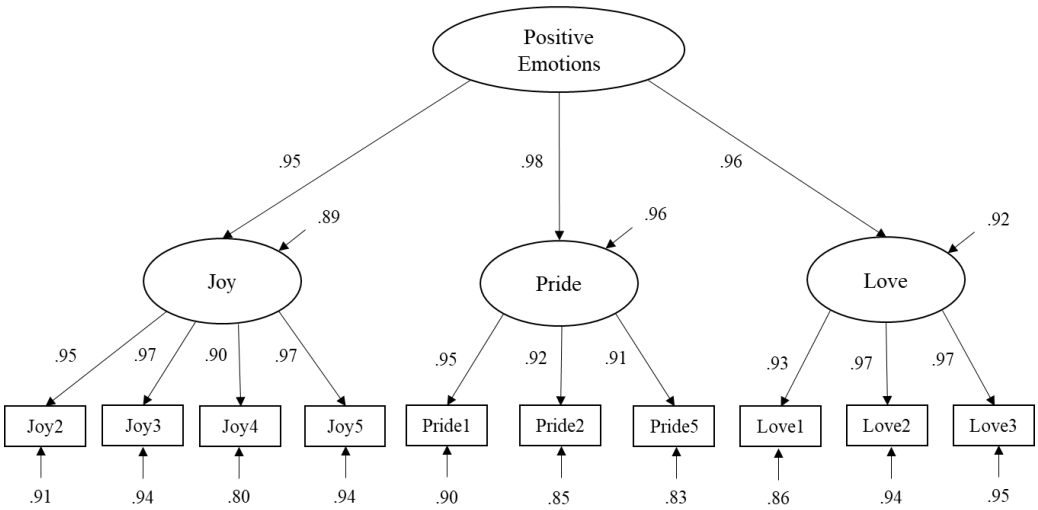
Scales	Items		
	21	Fatigue 5	Sometimes I am so exhausted at work that I only think about how to endure.
	22	Fatigue 6	When I finish my work, I feel drained.
	23	Fatigue 7	Sometimes working with children makes me so tired that I can barely move.
Hopelessness	24	HPL1	I feel I cannot do anything more to correct the behaviour of some students.
	25	HPL2	While working with completely unmotivated students, I feel there is no way out.
	26	HPL3	Because of the behaviour of some students, I feel completely helpless.
	27	HPL4	I feel hopeless when I think about the achievement of some students.
	28	HPL5	It seems to me that I cannot do anything to get through to some students.
	29	HPL6	I feel defenceless because I cannot help some of my students.
Anxiety	30	Anxiety 1	I feel tense and nervous while teaching my students.
	31	Anxiety 2	I am often worried that my teaching isn't going so well with my students.
	32	Anxiety 3	Preparing to teach my students often causes me to worry.
	33	Anxiety 4	I feel uneasy when I think about teaching my students.

Second-Order CFA: Validating the Positive Emotions Model and Negative Emotions Model. Based on the items obtained in each dimension in the first-order analysis, a second-order CFA analysis was conducted. The use of second-order CFA in this study was to examine 1) the positive emotion variable domain consisting of 3 indicators, Joy, Pride, and Love; and 2) the negative emotion variable domain consisting of 4 indicators, Anger, Fatigue, Hopelessness, and Anxiety. The results of the second-order CFA of these two variables are shown below.

Validating the Positive Emotions Model. The factors that relate to Joy, Pride, and Love were set to load onto a second-order factor labelled positive emotions (Figure 3.4). Two items (Pride 3 and Love 6) were removed in the CFA procedure from the positive emotions model because the items had relatively high proposed cross-loadings. The 10-item model with three scales demonstrated an acceptable model fit, that is, CFI = .98; TLI = .98; SRMR = .016; RMSEA = .093; and $\chi 2 = 69.350$; df = 32; $\chi 2/df = 2.167$; $p > .338$ (see Figure 3.4 and Table 3.8). Compared with the indices shown in Table 3.2, all fit indices had acceptable fit values. Thus, it can be stated that the model determined to have three factors was confirmed.

Figure 3.4

Second-Order CFA Model for Positive Emotions



Note. All path coefficients are significant ($p < .001$).

Table 3.8

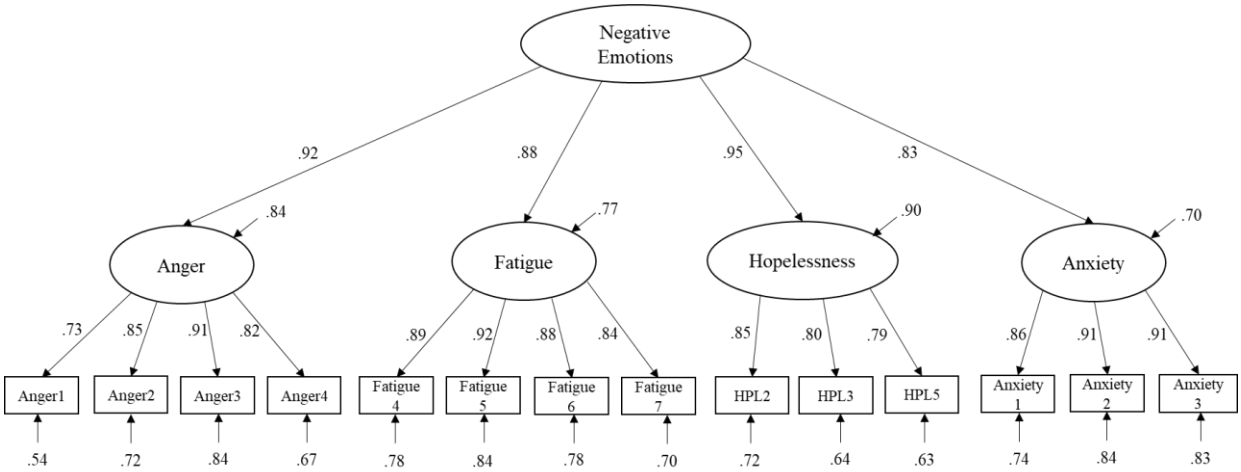
Positive Emotions Subscales and Items Following the CFA Results

Scales	**Items**		
Joy	1	Joy 2	I am joyful when the class atmosphere is positive.
	2	Joy 3	I am happy when I manage to motivate students to learn.
	3	Joy 4	I am happy when students understand the material.
	4	Joy 5	Exerting a positive influence on my students makes me happy.
Pride	5	Pride 1	I feel like a winner when my students succeed.
	6	Pride 2	Due to my students' achievements, I feel as if I am 'growing.'
	7	Pride 5	When I am proud of my students, I feel that my confidence is growing.
Love	8	Love 1	I feel warmth when I just think about my students.
	9	Love 2	I love my students.
	10	Love 3	My students evoke feelings of love inside me.

Validating the Negative Emotions Model. A similar process was applied to the negative emotions' subscales. Based on the criteria mentioned above, seven items (Anger 5, Fatigue 1, Fatigue 2, Hopelessness 1, Hopelessness 4, Hopelessness 6, and Anxiety 4) were removed in the CFA procedure from the negative emotions model because the items had relatively high proposed cross-loadings. The 14-item model with four scales demonstrated an acceptable model fit, that is, CFI = .963; TLI = .954; SRMR = .0369; RMSEA = .079; and $\chi 2$ = 134.604; df = 73; $\chi 2$/df = 1.844; p >.397 (see Figure 3.5 and Table 3.9). Compared with the indices shown in Table 3.2, all fit indices had acceptable fit values. Thus, it can be stated that the model determined to have four factors was confirmed.

Figure 3.5

Second-Order CFA Model for Negative Emotions



Note. All path coefficients are significant ($p < .001$).

Table 3.9

Negative Emotions Subscales and Items Following the CFA Results

Scales	**Items**		
Anger	1	Anger 1	I sweat from frustration when the class does not operate in the way that I want it to.
	2	Anger 2	The reactions of some students frustrate me so much that I would rather just quit the job.
	3	Anger 3	The frustration I feel while working with students undermines my job motivation.
	4	Anger 4	Some students make me so angry that my face goes red.
Fatigue	5	Fatigue 4	Due to the speedy pace of work, at the end of the day I feel as if I am going to fall down.
	6	Fatigue 5	Sometimes I am so exhausted at work that I only think about how to endure.
	7	Fatigue 6	When I finish my work, I feel drained.
	8	Fatigue 7	Sometimes working with children makes me so tired that I can barely move.
Hopelessness	9	HPL2	While working with completely unmotivated students, I feel there is no way out.
	10	HPL3	Because of the behaviour of some students, I feel completely helpless.
	11	HPL5	It seems to me that I cannot do anything to get through to some students.
Anxiety	12	Anxiety 1	I feel tense and nervous while teaching my students.
	13	Anxiety 2	I am often worried that my teaching isn't going so well with my students.
	14	Anxiety 3	Preparing to teach my students often causes me to worry.

3.3.3 Descriptive Statistics

Following the CFA results, means and standard deviations were calculated for all factors identified earlier and are presented in Table 3.10 below. Additionally, the internal consistency was evaluated through McDonald's ω (McDonald, 1978), since it is considered a reliability index with a lower risk of over- or underestimation of reliability than Cronbach's alpha (Hayes & Coutts, 2020). As shown in Table 3.10, all values were greater than .80, which suggested good internal consistency between items within each factor (Hermsen et al., 2013). That is, these items could be meaningfully used in further analysis.

Also, Pearson's bivariate correlations among these factors were calculated. As can be seen in Table 3.11, significant correlations were found between each factor (all $p < .05$). Using descriptive statistics in SPSS, all positive emotions were ranked higher than all negative emotions. Specifically, Joy was ranked as highest ($M = 6.26$, $SD = 1.10$), while Anxiety was rated lowest ($M = 3.5$, $SD = 1.64$). Among the four negative emotions, Hopelessness was reported highest ($M = 4.31$, $SD = 1.46$).

Table 3.10

Descriptive Statistics and McDonald's ω by Factor

Scale	M (SD)	ω	Skew	Kurtosis
Positive Emotions	5.95 (1.17)	0.98	-1.68	2.19
Joy	6.26 (1.10)	0.97	-1.61	1.73
Pride	5.84 (1.31)	0.95	-1.67	2.58
Love	5.75 (1.24)	0.97	-1.39	1.55
Negative Emotions	4.00 (1.37)	0.96	0.48	-0.81
Anger	4.13 (1.51)	0.90	0.33	-1.09
Fatigue	4.06 (1.58)	0.93	0.11	-1.31
Hopelessness	4.31 (1.46)	0.86	0.22	-0.75
Anxiety	3.50 (1.64)	0.93	0.58	-0.67

Note. $N = 135$ for all factors.

Table 3.11

Pearson's Bivariate Correlations Among the Seven Emotion Factors and Teacher Expectations

Scale	Positive Emotions			Negative Emotions				TE
	Joy	Pride	Love	Anger	Fatigue	Hopelessness	Anxiety	
Positive Emotions								.260**
Joy	-							
Pride	.899***	-						
Love	.884***	.906***	-					
Negative Emotions								-.293***
Anger	-.558***	-.422***	-.504**	-				
Fatigue	-.564***	-.446***	-.503***	.743***	-			
Hopelessness	-.573***	-.507***	-.598***	.749***	.756***	-		
Anxiety	-.639***	-.577***	-.645***	.718***	.650***	.720***	-	
TE	.284***	.228**	.247**	-.175*	-.243**	-.271**	-.346***	-

Note. ***p < .001, **p < .01, *p < .05.

3.3.4 Exploring Relations: A Structural Equation Model

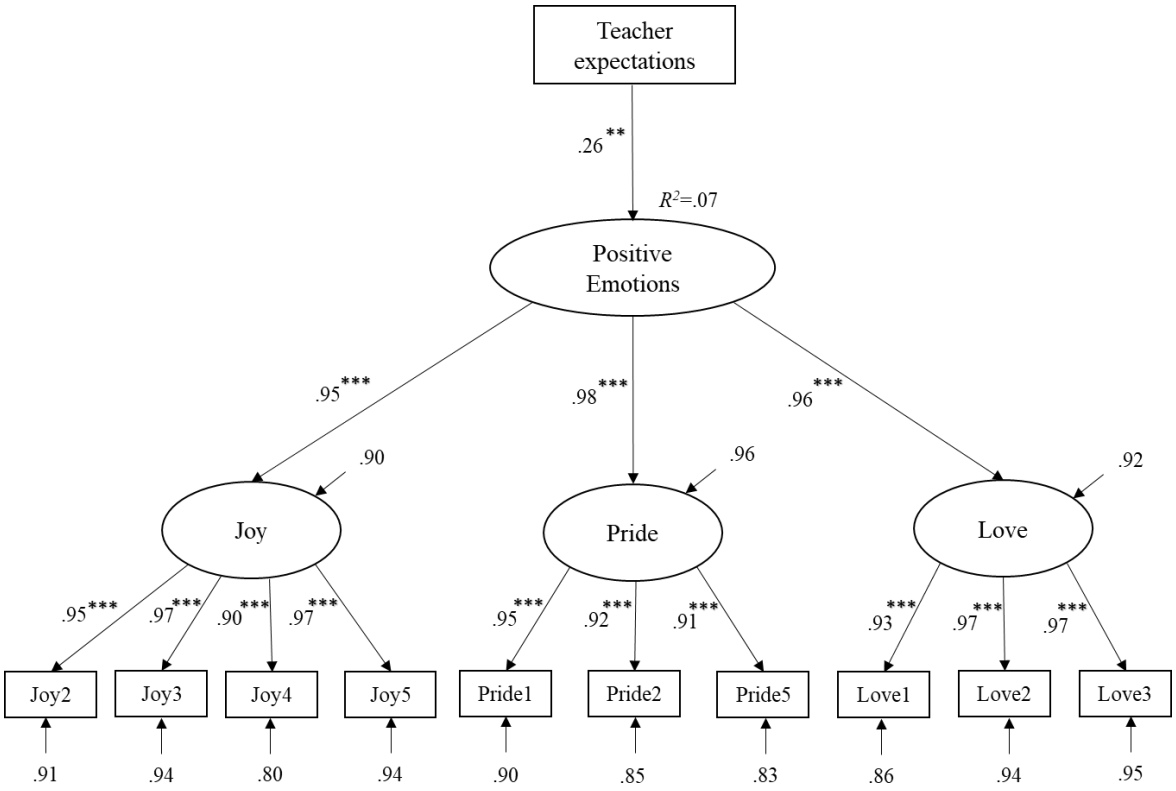
After the CFA, the SEM technique was employed to build the empirical models for this study. Models of how TE are related to teacher positive emotions and negative emotions were explored separately and will be presented under subsections below as follows: (1) TE predicting positive emotions; (2) TE predicting negative emotions; and (3) TE predicting both positive emotions and negative emotions. As a measure of effect size, Cohen's (1988) conventional guidelines for determining the strength of relations between two variables (i.e., 0.1 for "small" or "weak," 0.3 for "medium" or "moderate," and 0.5 for "large" or "strong") were used when interpreting the strength of the standardised regression coefficient paths found in this study (Nakagawa & Cuthill, 2007).

Teacher Expectations Predicting Positive Emotions. In accordance with the assumption that TE would predict teacher emotions, a structural model in which all paths from TE to the positive emotion factor were tested. Figure 3.6 is a diagram indicating the standardised regression weights for each path between the positive emotions' variables and TE. The fit indices indicated the model met acceptable thresholds ($\chi 2 /(df)$ = 1.870, p > .392; TLI = .978; CFI = .984; SRMR = .019; RMSEA = .081), with numerous statistically

significant paths between the variables. Overall, this model showed that higher levels of reported positive emotions were predicted by higher TE (β = .26, p < .01, R^2 = .07). The size of the standardised beta values reported indicated that TE were a weak-to-medium predictor of teacher positive emotions. Therefore, significant relations between TE and their emotions were found.

Figure 3.6

Structural Equation Model Predicting Paths Between Positive Emotions Variables and Teacher Expectations

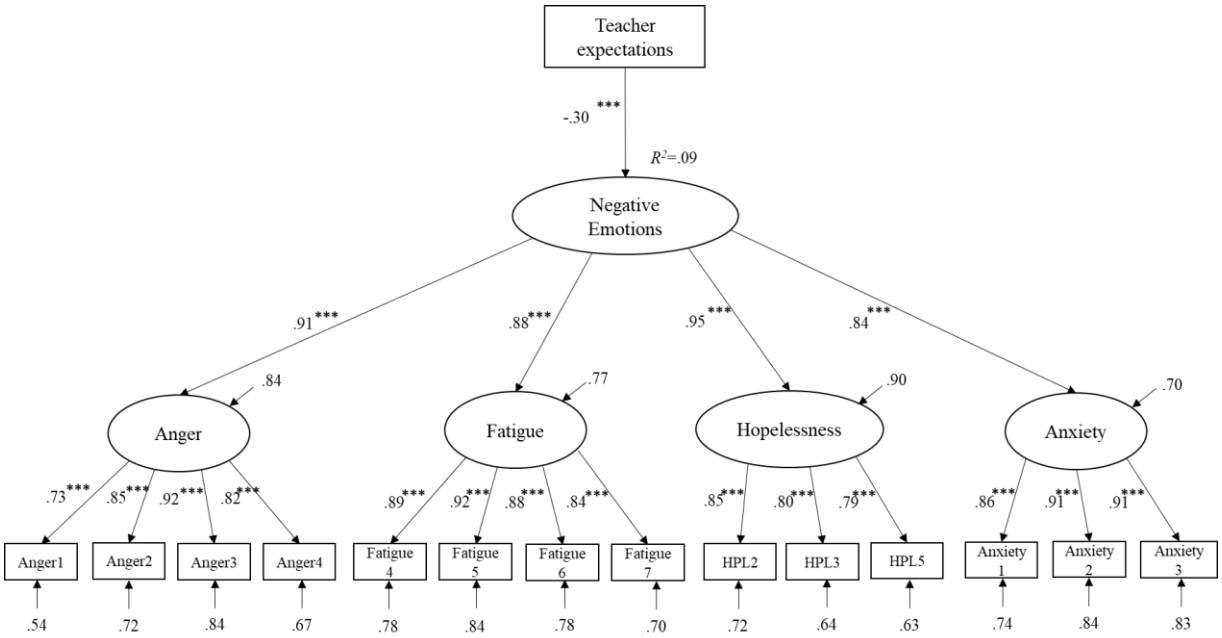


Note. ***p < .001, **p < .01, *p < .05. All paths in this diagram are statistically significant.

Teacher Expectations Predicting Negative Emotions. Similarly, a structural model in which all paths from TE to the negative emotion factor was tested using standardised estimates. Figure 3.7 is a diagram indicating the standardised regression weights for each path between the negative emotions' variables and TE. The fit indices indicated that the model met the acceptable thresholds ($\chi 2$ /(df) = 1.754, p > .416; TLI =.953; CFI = .962; SRMR = .0413; RMSEA = .075), with numerous statistically significant paths between the variables. The results showed that higher levels of TE predicted lower levels of negative emotions (β = -.30, p < .001, R^2 = .09). The size of the standardised beta values reported indicated that TE were a medium negative predictor of teacher negative emotions.

Figure 3.7

Structural Equation Model Predicting Paths Between Negative Emotions Variables and Teacher Expectations



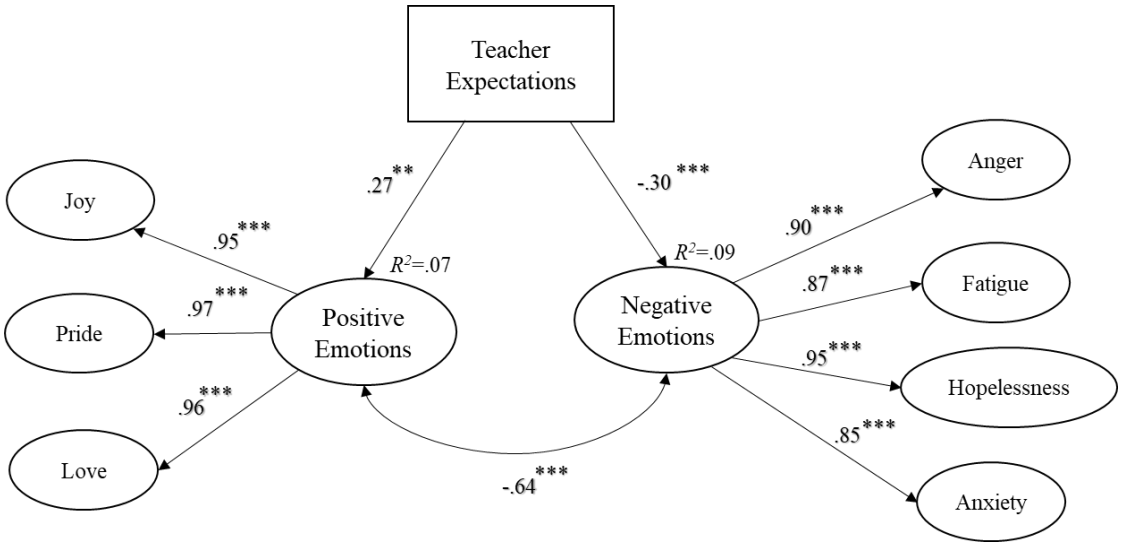
Note. ***p < .001, **p < .01. All paths in this diagram are statistically significant.

Teacher Expectations Predicting Both Positive Emotions and Negative Emotions. Figure 3.8 shows a diagram of the empirical model built in this study, with fit indices indicating that the model met acceptable thresholds ($\chi 2$ /(df) = 1.672, p > .433; TLI = .950; CFI = .956; SRMR = .0550; RMSEA = .071), with numerous statistically significant paths between the variables.

As shown in Figure 3.8, there was a negative correlation between positive emotions and negative emotions (r = -.64, p < .001). The path between positive emotions and TE was found to be statistically significantly positive (β = .27, p < .01, R^2 = .07), whereas the path between negative emotions and TE was found to be statistically significantly negative (β = -.30, p < .001, R^2 = .09). The positive path between TE and positive emotions meant that higher TE predicted higher positive emotions; or lower TE predicted lower positive emotions. In contrast, the negative path between TE and negative emotions means that higher TE predicted lower negative emotions; or lower TE predicted higher negative emotions.

Figure 3.8

Structural Equation Model Predicting Paths Between Both Emotions and Teacher Expectations



Note. ***p < .001, **p < .01, *p < .05. All paths in this diagram are statistically significant.

In sum, the results from the CFAs and SEMs above showed that 1) TE positively predicted positive teachers' emotions of joy, pride, and love; and 2) TE negatively predicted negative teachers' emotions of anger, fatigue, hopelessness, and anxiety. That is, positive emotions increased as TE increased and negative emotions decreased when TE was higher.

3.4 Discussion

The purpose of this study was to explore the relations between HT's expectations and their emotions. To be specific, the research question pertaining to the current study was: do HTs' expectations predict their emotions and, if yes, how? Through CFA and SEM, the findings revealed that teacher emotions and TE were associated with each other. Specifically, HTs who reported higher levels of TE also reported an experience of higher levels of pleasant emotions of joy, pride, and love. The opposite pattern of relations was explored for devastating and debilitating emotions, which meant that HTs who had lower levels of TE had higher levels of anger, fatigue, hopelessness, and anxiety. After showing the overall patterns of emotions in Chinese HTs, this section will respond to the research question by discussing the structural model identified in the current study.

3.4.1 Understanding Emotions in Chinese HTs' Context

As explained in the literature review, differently from regular teachers, HTs in the Chinese context are responsible for students' overall development. In addition to subject

teaching, HTs' commitments are multidimensional and they are expected to work as "doctor," "policeman," and "psychologist" to students (S. Liu & Hallinger, 2018). As such, HTs are believed to experience more negative emotions than regular teachers, which could be largely attributed to their excessive workloads, especially noninstructional work (S. Liu & Onwuegbuzie, 2012; Z. Zhao, 2014). However, the results of this study showed that, although the rating of Fatigue caused by heavy workloads was relatively high, the Hopelessness related to student's misbehaviours and attitudes was the most common negative emotion of HTs. This result is not unexpected when considering the more intimate relationships between students and their HTs than with regular teachers. Additionally, it is worth noting here that HTs are responsible for students' moral and character education, which means HTs are required to deal with students' misbehaviours (e.g., cheating, fighting) whereas other regular teachers are not. That is not saying that regular teachers do not care about these scenarios, but rather, HTs are more likely to be impacted by these encounters given that they are held accountable. This could partly explain why Hopelessness caused by students' misbehaviours and unmotivated attitudes (as indicated by the items measuring hopelessness) had the highest means in HT's negative emotions. Finally, findings on teacher emotions were indicative of the complicated professional conditions that HTs often face and suggested that their emotions were related to various factors rather than merely structural conditions. In other words, HTs' emotional experiences should be understood and promoted through a more comprehensive lens instead of structural factors such as workloads or the imbalance between their income and workload.

3.4.2 Understanding the Structural Relations Between HT's Emotions and TE

The overarching aim of the current study was to examine whether TE could predict HTs' discrete emotions (i.e., joy, love, anger, hopelessness, and anxiety) and in what ways. It is worth noting that the cross-sectional design of this study only allowed the relations to be explored rather than drawing any causal inferences. Based on the theoretical rationale, the models in the current study were indicative of the beneficial role of TE in developing HTs' emotional well-being by being positively related to pleasant emotions (i.e., love) and negatively to the debilitating emotions (i.e., hopelessness). The following two sections will discuss how these patterns can be understood in relation to the TE research and previous theory on the emotion appraisal and regulation process.

Teacher Expectancy Effects. The pattern between TE and emotions can be understood in relation to self-fulfilling-prophecy effects (Merton, 1948), whereby an

individual tends to behave in a way to realise their prophecies and, therefore, is more likely to achieve their expectations. In other words, an HT with higher expectations might provide better instruction and contribute more to students' motivational, affective, and cognitive development (e.g., S. Wang et al., 2018). As such, higher TEs have a greater probability of resulting in improved student outcomes (Z. Li & Rubie-Davies, 2017), which may, in turn, be associated with teacher emotions. Specifically, those teachers who tend to achieve the classroom goals they set (for example, to engage students and to improve their academic performance), are also more likely to have positive emotions. This could be explained in relation to the reciprocal model on causes and effects in the context of teacher emotions (Frenzel, 2014). Additionally, higher levels of TE and consequent improvements in teaching performance and student outcomes might prevent the occurrence of negative emotions such as anxiety.

It is notable that, as shown in the TE effects literature, teachers with lower TE might sometimes absolve themselves from their responsibility for student learning (Diamond et al., 2004; Rubie-Davies et al., 2006) and instead, the students might be blamed for classroom problems when they did not achieve well (Diamond et al., 2004). From this viewpoint, it seems likely that teachers with lower TE might be less frustrated with undesirable teaching and students' unsatisfactory performance because they do not view themselves as culpable for poor student achievement. However, the model in this study showed that teachers with lower TE did not show reduced negative emotions as might be expected given the research cited above. Instead, the results showed that HTs' anxiety related to teaching practices decreased when they had higher TE. In this regard, it could be argued that teachers with higher TE benefitted more emotionally from providing proactive instructional support to students and their commitment to improving their teaching practices than teachers with lower TE.

Furthermore, although this study explored the relations between TE and emotions only, it should not be discussed separately from other teaching beliefs given their interrelations. Previous research has shown possible relations between TE and other teaching beliefs, such as teaching self-efficacy (Z. Li & Rubie-Davies, 2018), which has been found to mediate teacher emotions (Burić et al., 2020; Klassen et al., 2013). As indicated by Burić et al. (2020), higher levels of teaching self-efficacy predicted more positive emotions (e.g., joy) and less devastating emotions (e.g., anger). The results of the current study shared similar patterns with what has been found in studies of other teaching beliefs. Although the role of other teaching beliefs in teacher emotions and expectations is beyond the scope of this study,

it is reasonable to believe that the association between TE and teacher emotions did not happen in isolation.

Appraisal Process and Emotion Regulation. This study found statistically significant relations between TE and teachers' positive and negative emotions, which confirmed the hypothesised conceptual model introduced earlier: teaching beliefs appeared to explain some of the variance in teachers' emotions (see Chapter 2 for details). As shown in the literature review, the degree to which teachers' beliefs matched with the encounters during instructions not only served as a determinant of specific emotions but also mediated the intensity and quality of the emotional responses (Frenzel, 2014). Furthermore, previous research suggested that individuals might cope with their emotions differently in one of two ways: cognitive reappraisal and expressive suppression (Chang, 2013). TE, as one important teaching belief, is theoretically involved in these processes and thus is likely to lead to different emotions. The results of this study corroborated these theories by showing that positive emotions increased as TE increased and negative emotions developed conversely. For example, a teacher with higher TE may have greater confidence in their students' ability, which consequently would be less impacted by a temporary frustrating scenario in which students did not achieve at the expected levels. However, the current quantitative study only attempted to show the relations between TE and their emotions, and it remains unknown how TE mediate teachers' appraisal of situations and their responses to them, and how this then leads to different emotions. Nevertheless, the findings in this study suggested that future research could potentially investigate how TE works in these emotional processes. This will also be explored further in Study 2 using semistructured interviews.

3.5 Limitations and Future Directions

Firstly, this study employed a cross-sectional design which does not enable causal inferences to be drawn. The findings suggested that TE predicted teacher emotions but the causal relations between the two constructs could not be inferred. Additionally, this study only explored the degree to which TE (the overarching factor in this thesis) predicted teacher emotions, whereas the relations between these two factors are probably bi-directional. Furthermore, despite the predictive role of TE on emotions found in this study, it remains unclear whether this relation was consistent across different discrete emotions and time. Future explorations might employ longitudinal or experimental designs to investigate the more dynamic relations between TE and teacher emotions. Specifically, it would be worthwhile exploring whether current levels of TE could predict future levels of teachers'

emotions, or vice versa.

Secondly, self-report data might risk a bias due to its high reliance on the participants' ability and willingness to answer the questions honestly (Pekrun & Linnenbrink-Garcia, 2014). With a view to reflecting on the nature of TE and teacher emotions, teacher interviews or observations could be considered in future investigations.

Thirdly, regarding the sample, approximately 44% of all approached teachers agreed to participate, which might raise questions regarding the characteristics of teachers who declined to enrol. Additionally, although all participants were informed that their responses would be treated confidentially, the possibility of giving socially desirable responses could not be excluded.

Fourthly, this research was conducted in 2020 in the Chinese educational context that was undergoing the impact of COVID-19, which might have influenced teachers' emotions and their expectations of students. Future research should aim at replicating the findings from the current study in diverse contexts. Additionally, since the results of this study have shown the predictive role of TE on emotions in the HT context, further research could replicate these findings with regular teachers. It would be interesting to see whether there are any differences between these two groups regarding the patterns of TE and emotions, and if the associations are similar, why that might be.

Finally, this study explored the relations between TE and teacher emotions, but it failed to explain how TE could be reflected in their emotions. Specifically, it would be worth further exploring how these associations emerged and whether there are any possible mediators between these factors. For instance, the role of TE in teacher's emotion regulation remains unknown, for example, whether and how TE mediates strategies (reappraisal and suppression) for dealing with emotionally stressful situations. In addition, it is possible that other confounding variables (e.g., teacher self-efficacy) could partly account for the observed relations between TE and teacher emotions. Future research could explore these relations further by measuring TE and teachers' emotional regulation strategies and/or other teaching beliefs.

3.6 Theoretical and Practical Implications

3.6.1 Theoretical Implications

This research was the first attempt, to our knowledge, to investigate TE as a potential predictor of teacher emotions. Despite the growing attention to teachers' emotions and abundance of studies on TE, researchers have rarely focused on the relations between these

two constructs. The findings of this study may increase our awareness of the interplay of TE and teacher emotions, both of which have important implications for teaching practices, student outcomes, and teachers' own well-being (e.g., Pesu et al., 2016). Additionally, this study shifted attention from teacher expectation effects of students to teachers themselves (HiExTs and LoExTs). As such, the findings from this research on the relations between TE and emotions of different qualities might contribute to the scarce base of knowledge on the role of TE in the teaching profession.

3.6.2 Implications for Teacher Education

This study has meaningful implications for teacher education and teacher professional development. A better understanding of emotions might contribute to teachers' personal well-being and their overall teaching effectiveness (J. Chen, 2020). Furthermore, this research provided empirical data to promote theoretical knowledge on TE and teacher emotions, which could serve as a solid basis for examining how teachers might regulate their emotions and developing relevant interventions. Through the involvement of "emotive" dimensions, the findings will also provide implications for global dialogues which concern teaching improvement.

Specifically, although teachers' negative emotions were a structural condition embedded in the profession (Kelchtermans, 1996), this research suggested that it might be possible to help HTs diminish their negative emotions to some extent. The finding of the role of TE in teachers' emotions can be involved in both in-service and preservice training and intervention programmes. For example, teachers might be trained to use proactive instructional strategies in a way that HiExTs usually do, which could prevent the experiences of negative emotions such as anxiety and fatigue. However, TE and its effects have been rarely involved in teacher education worldwide (Rubie-Davies et al., 2018). Therefore, it is of great significance for teacher education and professional development programmes to consider involving relevant content, which would increase teachers' understanding of the effects that their TE could exert—not only on their students but also on themselves. Furthermore, the retention of teachers should not only be considered in terms of short-term attraction but should also attend to the long-term agenda. A support system that is genuinely concerned about the perspective of teachers is needed. This is a message worth listening to in contexts where schools find it increasingly difficult to retain qualified HTs and teachers.

Reliving teachers' negative emotions and preparing teachers for responding to their emotions effectively can be much easier said than done, considering that this profession is an

emotional endeavour (Hargreaves, 2000) and it is unlikely for teachers to exert total control over what happens in their practices, nor over the consequences of their actions (Kelchtermans, 1996). Teachers might find it even more challenging when they are working in a hierarchical culture where frontline teachers' voices are often marginalised or even ignored (Lee et al., 2013). The tension that "to teach is to be vulnerable; to be vulnerable is to be capable of being hurt" (Bullough, 2005, p.23) does not mean that nothing should be done to support teachers, rather, it reminds us of how important it is to prepare teachers to manage these emotions effectively, because "while vulnerability is part of teaching, teachers manage it differently, and these differences have profound importance for teachers and their development, students and their learning, and teacher educators and their practice" (Bullough, 2005, p. 23). Being aware of the interplay between TE and emotions might be the first step to involve emotive dimensions in a TE framework. Based on this, offering professional support to equip teachers with high TE, efficient instructional practices, and adaptive emotion regulation strategies can be another step forward.

3.7 Conclusions

The aim of the present study was to explore the predictive role of TE in teachers' emotions. The results confirmed the hypothesised conceptual model that TE predicted positive emotions and negative emotions in opposite directions: higher levels of TE predicted higher levels of positive emotions (joy, pride, and love) and lower levels of negative emotions (anger, fatigue, hopelessness, and anxiety); lower levels of TE predicted lower levels of positive emotions and higher levels of negative emotions.

In conclusion, this study has contributed to the current body of knowledge on TE and teacher emotions by showing that TE, as a teaching belief, provides a protective shield against negative emotions and is positively related to pleasant emotions. In addition to contributions to theoretical knowledge of TE and their significance in teacher emotions, the current study also has implications for initial teacher education and professional development programmes by illuminating the possibility of promoting teachers' positive emotional experiences using a teacher expectation framework.

Chapter 4: Study 2
Expecting More: From Mind Full to Mindful

In the previous chapter, teacher emotions and teachers' average expectations for students in their homeroom classes were examined. Clear associations were found between these two factors, which engendered questions about *how such relations emerge* and *how they would manifest in teaching and learning*. With the aim of exploring these questions in more depth, this study, the second of three in this doctoral research project, elaborated on the findings of Study 1 by utilising semistructured and scenario-based interviews with the identified high-, medium-, and low-expectation teachers. The research questions pertaining to the current study were:

(1) In what ways, if any, do HTs with different levels of TE show different patterns of emotions?

(2) In what ways, if any, do HTs with different levels of TE and corresponding emotions respond to scenarios differently?

This chapter (Chapter 4) consists of six sections. The first section presents the methods of this qualitative study, including the participants, materials, procedures, and data analysis plan. After that, themes that emerged from the interviews will be provided along with relevant quotations in the results sections. The third section will then answer the research questions and discuss the findings in more depth. Limitations of the research design are presented in the fourth section, followed by considerations of the implications for future research and a conclusion section.

4.1 Method

4.1.1 Participants

Individual interviews were conducted with 12 teachers from six different high schools who participated in the questionnaires in Study 1 (Table 4.1). As shown in Chapter 3, 135 high school HTs from 14 senior high schools participated in a questionnaire which evaluated teachers' emotions and TE levels. Based on their average TE (relative to student baseline achievement), a cluster analysis was conducted to identify HT participants as HiExTs, MeExTs, and LoExTs. Specifically, HiExTs were teachers whose TE were significantly above student actual-baseline achievement, whereas LoExTs were those who had TE that were significantly below student baseline achievement. Among the 135 teachers, HTs from the high-expectation (Overestimation) group, the medium-expectation (Near-accurate estimation)

group, and the low-expectation (Underestimation) group were respectively identified as HiExTs (n = 22), MeExTs (n = 62), and LoExTs (n = 51).

Among these 135 participants, the researcher invited the four highest, four lowest and four most accurate (expectations closest to achievement) of the 13 teachers who volunteered to take part in the interviews. As shown in Table 4.1, of the 12 participants in this study, 66.7% were female (n = 8), and 75% self-identified as postgraduate (n = 9) and 25% as undergraduate (n = 3). Teachers reported teaching six different subjects: Chinese (n = 5, 41.7%), mathematics (n = 2, 16.7%), English (n = 2, 16.7%), chemistry (n = 1, 8.3%), and history (n = 2, 16.7%). The participants had an average of 5.6 years of teaching experience (SD = 3.6) and 5.1 years of working as an HT (SD = 3.8). Of these teachers, 8.3% indicated that they had been working as a teacher for nearly 1 year (n = 1), 25% for 1–3 years (n = 3), 33.3% for 4–6 years (n = 4), 25% for 7–10 years (n = 3), and 8.3% for 11–15 years (n = 1). Of these teachers, 16.7% indicated that they had been working as an HT for nearly 1 year (n = 2), 25% for 1–3 years (n = 3), 25% for 4–6 years (n = 3), 25% for 7–10 years (n = 3), 8.3% for 11–15 years (n = 1).

Table 4.1

Interviewees' Attributes

Interviewees' attributes					
Interviewee Code	Gender	Expectations Group	Subject	Age	Years of Teaching Experience (Years of Experience as an HT)
H1	Male	High	Chinese	35	7 (7)
H2	Female	High	History	30	4 (4)
H3	Female	High	Chinese	30	5 (<1)
H4	Female	High	English	31	5 (5)
M1	Female	Medium	Chinese	29	3 (3)
M2	Male	Medium	Mathematics	31	7 (7)
M3	Male	Medium	English	35	10 (9)
M4	Female	Medium	Chinese	26	3 (2)
L1	Female	Low	Chemistry	25	<1 (<1)
L2	Female	Low	Mathematics	40	15 (15)
L3	Male	Low	Chinese	29	3 (3)
L4	Female	Low	History	28	4 (4)

Note. The H in H1, H2… stands for teachers from the high-expectations group. M in M1, M2… stands for teachers from the medium-expectations group. L in L1, L2… stands for teachers from the low-expectations group.

4.1.2 Materials

Based on the questionnaire data in Study 1, individual interviews were carried out with teachers in different expectation groups. Each of these 12 interviews lasted for 30 to 60 minutes and were all audio-recorded and transcribed by the researcher. The purpose of these interviews was to clarify the findings of the questionnaire, to acquire deeper understandings, and to verify the results, which would contribute to the reliability of the conclusions. However, the interviews were also designed to obtain new information about TE and their emotions. The interviews provided the researcher with deeper insight into the relations between TE, their emotions, and how the interactions influenced their teaching practices.

In particular, semistructured interviews and scenario-based methods were used. The decision to conduct the interviews in a semistructured manner was because of the type of data

required to answer this study's research question. Given that how HTs' expectations relate to their emotions remains unknown, and there might be variation among individuals, semistructured interviews were suitable for this study because the order of the questions was alterable and additional questions could be asked (Gray, 2014). This method was useful to probe participants to elaborate on their answers, which contributed to a rich insight into teachers' experiences. As such, the interviews were guided by a set of key open-ended questions (Mutch, 2013) and key interview techniques such as prompting and probing were also used to obtain an insightful understanding of the answers provided by participants. Specifically, the interview started with an open-ended question about teachers' most frequent emotions and teachers' opinions of the relations between their emotions and their expectations of students. Subsequently, the teachers were asked about the influences of emotions and expectations on their teaching practices, how they dealt with emotions in class and how they reacted to different scenarios. Examples of interview questions are shown in Table 4.2. The full list of interview questions is provided in Appendix D. Prompts such as "Why?" or "What do you mean?" and probes such as "How do you deal with this issue?" were used to ensure that participants were able to explain and justify their responses, as well as expand on them. It has been found that in studies where prompting and probing techniques have been used during interviews, participants are more likely to provide critical and relevant insights to the questions, as these techniques of prompting and probing have been shown to facilitate higher order thinking skills (e.g., H. J. Smith et al., 2008).

When it became clear that teachers were aware of their emotions and expectations, they were asked to provide further information on four scenarios developed from the first two interviews with HT participants. The scenario interview was used to explore both *how HTs respond to encounters* (e.g., teacher–student interactions) during instructions and *their reasoning underlying these responses*. Participants were provided the opportunity to ask for background and contextual information (e.g., year level, what prompted the situations) that they wanted to know before answering. The contextual information was standardised to guarantee that all respondents were exposed to consistent knowledge of the context if it was requested. The interviewees were then asked to describe how they might be emotionally impacted, what they might do next and to explain the underlying reasons for their reactions. By providing teachers with a common set of teaching scenarios and core of common contextual information, the scenario interview allowed the researcher to directly compare the responses of HTs in different TE groups to the scenarios, which contributed to explorations of the research questions. As a result, the key interview questions can be found in Table 4.2:

Table 4.2

Interview Questions

Semistructured Questions
1. Can you please describe in five words the most frequent emotions you have experienced as an HT?
2. In what ways, if any, do you believe that your emotions are related to your expectations of students in your role as an HT?
3. How do you think your emotions influence your teaching practices in class?
4. How do you think your expectations of students influence your teaching practices in class?
5. In what ways, if any, do you believe that you can deal with your negative emotions effectively in class?
Scenario-Based Questions
1. Improper behaviours of students Please imagine a scenario where you are informed that some of your students have cheated in their exams. But the subject they cheated on was not the one that you teach. This means that you need to address this issue together with your colleagues (e.g., the subject teachers, the school leader….). How do you think this will affect you? How will you respond to this issue?
2. Pressures from parents Please imagine a scenario where some parents of the students in your homeroom class blame you for what they perceive as regressions in the learning of their children. This means that the parents doubt the quality of your instruction and attribute the failure of the students to you. How do you think this will affect you? How will you respond to this issue?
3. Progress of students Please imagine a scenario where some students in your homeroom class have made impressive progress in the final exam, especially the subject taught by you. How do you think this will affect you? How will you respond to this issue?
4. Disengagement of students Please imagine a scenario where students in your homeroom class are relatively less active during class time, especially in the subject taught by you. For example, they are not engaged in the group discussions or are unresponsive in your class. How do you think this will affect you? How will you respond to this issue?

4.1.3 Procedures

Data Collection. Ethical approval was gained for this study (Ref. 024436) from the UAHPEC. The participants in this study were selected from the sample of Study 1, therefore, the processes of recruiting schools and contacting potential teacher participants were the same as what has been described in Chapter 3. The sampling procedures for the interviewees are detailed below.

Because it was important to recruit HT participants at different levels of expectations, purposive sampling was employed to select 12 teachers from the HTs who completed Study 1. Teachers who were willing to be interviewed had already indicated that on their CFs. Study 1 divided the participants into three groups (LoExTs, MeExTs, and HiExTs). Four teachers from each group were selected to attend individual interviews. The researcher took the four highest, four lowest, and four most accurate (expectations closest to achievement) of those who volunteered to be interviewed. However, in order to avoid adverse effects, interviewees were not informed of their expectation levels during the project. Those HTs who agreed to participate in this study were provided with CFs indicating their agreement to be interviewed and audio-recorded. All interviews in the current study were conducted in Mandarin given the context and participants' preferences. Additionally, all interviews were conducted remotely via Zoom due to the constraints of COVID-19. Following data collection, all interviews were transcribed and coded. The data analysis then started, as detailed in the next section.

Translation Procedure. After all interviews had been conducted in Mandarin, the data were translated followed the procedure suggested by H.-Y. Chen and Boore (2010), which was developed from previous literature (e.g., Brislin, 1970; McDermott & Palchanes, 1994) and H.-Y. Chen's (2004) earlier study. The detailed translation procedure is shown in Table 4.3. After coding and analysing the interview data, the student researcher translated the codes and themes into English herself and a bilingual doctoral student who had no association with the study was invited to translate them as well to ensure accuracy. Then, another external doctoral student conducted a back-translation (a target language version, English in this study, was translated back into the source language version, Chinese), with the aim of contributing to the trustworthiness of data in qualitative research (Maneesriwongul & Dixon, 2004). Additionally, regarding the most appropriate translation, the current study adopted the combination of literal translation and "free translation" (Filep, 2009). To be specific, if the interviewee provided clear answers with coherent sentences, the researcher translated them literally. As suggested by Honig (1997, p. 17 cited in Birbili, 2000), "a literal translation (word-by-word) could perhaps be seen as doing more justice to what participants have said

and make one's readers understand the foreign mentality better." Nevertheless, this technique might hamper the readability of the text, which could in turn undermine readers' patience and their understanding of the results (Birbili, 2000). For example, when a sentence in Mandarin involved grammatical and syntactical structures which do not exist in English, translating it into English by simply applying the rules of English structure could compromise its meaning and sense (Filep, 2009). As such, a "free" translation (Filep, 2009) was applied when a readable quotation was required, by adjusting the structure and adding missing fragments.

Table 4.3

Translation Procedure

Phase	Description of the Phase	Language Version	By Whom
1	Interview data were transcribed verbatim in Chinese.	Chinese	The student researcher
2	Interview data were analysed. The codes and themes emerged.	Chinese	The student researcher. An independent rater (Chinese Doctoral Candidate 1) was asked to recode two randomly chosen transcripts.
3	The student researcher translated the codes and themes into English herself and also invited a bilingual doctoral student to translate them. Both translators reached agreement in the final English version.	Chinese–English	The student researcher and a bilingual colleague (Chinese Doctoral Candidate 2).
4	The codes and themes were back-translated (from English to Chinese) by another bilingual doctoral student. Steps 3 and 4 were repeated to decrease inconsistencies between the original version and the back-translation version.	English–Chinese	A bilingual colleague (Chinese Doctoral Candidate 3).

4.1.4 Data Analysis Plan

Thematic Analysis. In current study, the data collection and analysis proceeded

simultaneously, which allowed the emerging findings to inform further data collection (Merriam, 1998). Given the rich nature of data collected from the semistructured and scenario-based interviews, a thematic analysis approach was used with the assistance of Excel to analyse themes within the data. An inductive rather than theoretical approach was applied to allow themes to emerge from the interviews rather than being generated by the interview questions (V. Braun & Clarke, 2006).

Informed by the steps of the qualitative analysis proposed by V. Braun and Clarke (2006), the qualitative data analysis of this study included: (1): becoming familiar with the data by transcribing, reading, and rereading the data while noting down initial codes; (2) generating initial codes; (3) developing themes by systematically collating data under each code and into potential themes; (4) interlinking themes to ensure correspondence with the coded extracts and with the entire data-set; (5) analysing and refining themes; and (6) constructing a report by selecting and analysing examples relevant to the research questions in the findings and discussion.

To be specific, after all the individual interviews had been transcribed by the researcher, the researcher read through each one to make sense of the responses before adding initial codes. When all transcripts had been coded, the researcher examined commonalities and differences and tried to identify themes that emerged from the codes. For example, codes that related to teachers' anger, hopelessness, and fatigue were coded as "negative emotions." This was the process for other emerging themes until a final theme could be established. All transcripts were cross-referenced for commonalities and differences to see if more themes emerged.

The second part of the data analysis involved creating a codebook using a Microsoft Excel spreadsheet, where all the codes (i.e., the collated data of similar features) were grouped under the main themes and subthemes. Then, the frequency of occurrences of each subtheme and theme were recorded for each group of teachers with different TE levels. In doing so, the researcher was able to identify which themes and subthemes occurred more frequently in low-, medium- or high-expectation teachers. Lastly, percentages of codes related to a particular level of TE were calculated and tabulated in the results section to allow for comparisons across the types of HTs. The results section below will report responses across all participants and also any differences between the three TE groups, acknowledging that these groups are small.

Interrater Agreement. The peer debriefing strategy was used to improve the accuracy of the findings and the validity of the qualitative study (Creswell & Miller, 2000).

Before analysing the data, an independent rater (a Chinese doctoral candidate) was asked to recode two randomly chosen transcripts of the 12 interview transcripts to examine the reliability of the data coding process. She was blind to the expectation groups to which these two interviewees belonged. The coding of the independent rater was then compared against the researcher's initial coding, and both were used to calculate a Cohen's kappa statistic of interrater agreement as a measure of data reliability, and to ensure that the qualitative data coding process did not result in substantial measurement error. Landis and Koch (1977) encouraged the use of Cohen's kappa (Cohen, 1960, 1968) because it takes into account the probability of random agreement among raters. Calculating kappa can be done by SPSS or using the formula:

$$\kappa = 1 - \frac{1-P_0}{1-P_1}$$

where p_0 represents the observed proportion of agreement among raters, and p_1 represents the hypothetical probability of raters agreeing by chance.

As a result, two kappa values were calculated by SPSS for each of the two transcripts, as shown in Table 4.4 below. Following the guidelines suggested by Landis and Koch (1977), where a coefficient's value between .41 and .60 indicates moderate agreement, values between .61 and .80 suggest strong agreement, and values above .81 suggest almost perfect agreement, the kappa coefficients found in current study suggest high levels of data reliability (κ > .81).

Table 4.4

Cohen's Kappa Coefficient for the Two Transcripts Analysed for Interrater Reliability

	κ	Standard Error	95% Confidence Interval
Transcript 1	.87***	.05	(.97, .77)
Transcript 2	.84***	.06	(.96, .72)

Note. ***p < .001.

4.2 Results

When analysing the interview data in this study, the researcher did not superimpose categories, instead, themes emerged from the participants' answers. These themes largely indicated how the emotions of HiExTs, MeExTs, and LoExTs were related to their TE and how such interactions were reflected in their teaching practices. Accordingly, thematic analysis of the interview data gave rise to three central themes: 1) *Awareness of TE and Emotions*, 2) *Perceptions of Teacher and Student Roles in Learning*, and 3) *Capacity for*

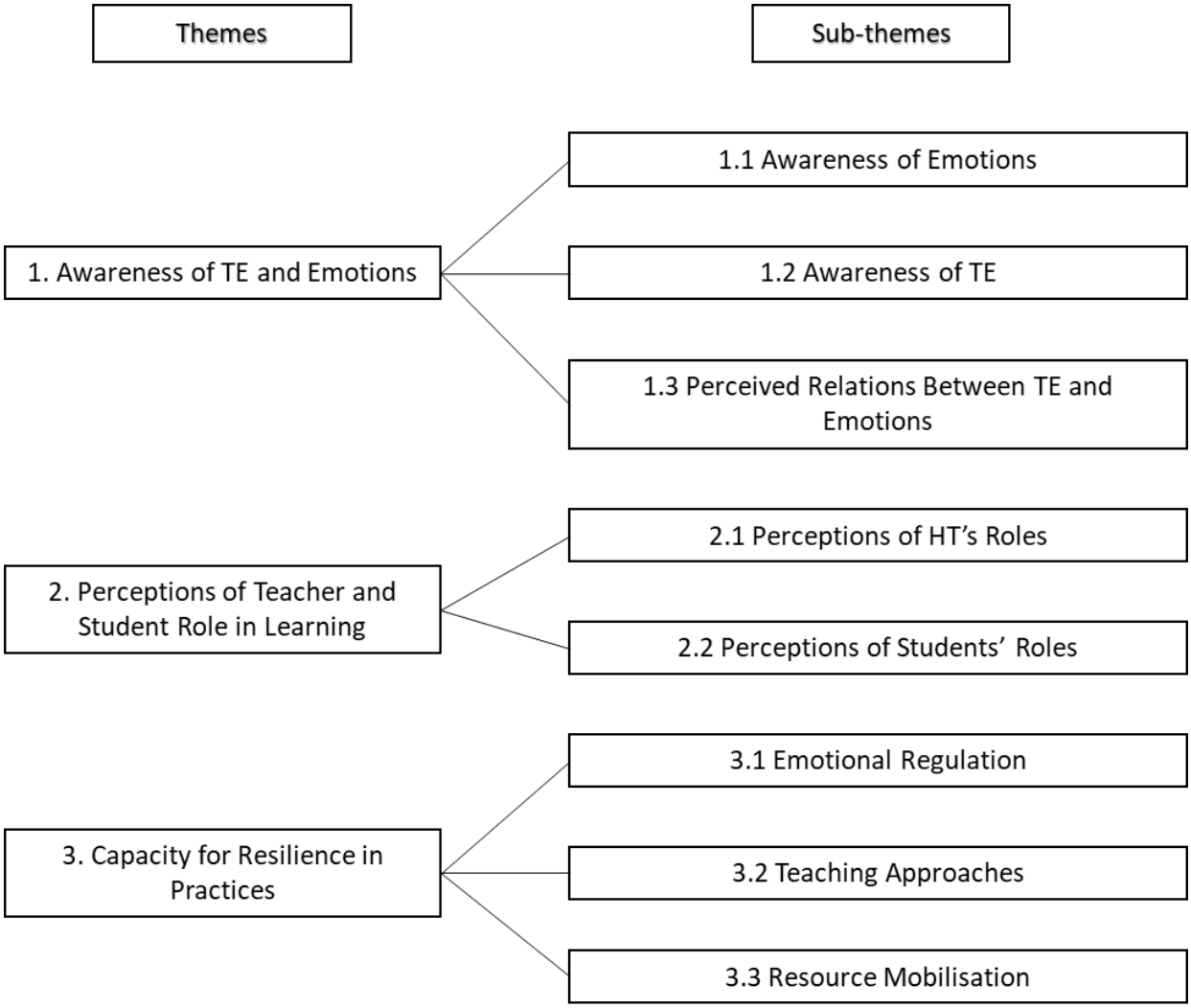
Resilience in Practices.

More specifically, (1) Awareness of TE and Emotions referred to participants' awareness of their frequent emotions as an HT and their understandings of TE. This category also represented the degree to which HTs were aware of their expectations having to do with their teachings and corresponding emotions. (2) Perceptions of Teacher and Student Roles in Learning emerged from the ways in which teachers tended to respond to the scenarios and their attribution process. This category was strongly related to (3) Teachers' Capacity for Resilience in Practices, which was constituted by the way in which teachers regulated their emotions, the teaching approaches they usually followed and how they were able to mobilise existing resources.

All three themes and their subthemes are shown in Figure 4.1 below. The following subsections will explore each of these themes, subthemes, and codes, along with HT quotations that illustrate and represent their meaning.

Figure 4.1

Themes and Subthemes Developed Through Thematic Analysis of Interview Data



4.2.1 Theme 1: Awareness of TE and Emotions

Theme 1 was related to teachers' own awareness of their TE and emotions, which worked as a foundation for the following findings. This section compromises three subthemes: 1) awareness of emotions, 2) awareness of TE, and 3) perceived relations between TE and emotions. The subsections below will report these three parts respectively.

Awareness of Emotions.

Frequent Emotions. Various emotions were mentioned and discussed during the interviews. In total, 17 kinds of emotions were proposed by HT participants, among which five were positive emotions (happiness, gratification, sense of achievement, hopefulness, and interest) and 12 were negative emotions (anxiety, irritability, grievance, nervousness, anger, pressure, boredom, guilt, sensitivity, fatigue, disappointment, and helplessness). Examples of

quotations are shown in Table 4.5. Overall, as shown in Table 4.6, negative emotions (*n* = 76) were mentioned more frequently than positive emotions (*n* = 46). Regarding the whole group of participants, happiness (*n* = 22, 47.8%) and sense of achievement (*n* = 13, 28.3%) were the most common positive emotions. Anxiety (*n* = 17, 22.4%), irritability (*n* = 17, 22.4%), and anger (*n* = 11, 14.5%) were the most common negative emotions.

In particular, positive emotions were mentioned more frequently by the HiExT group (*n* = 19, 41.3% in HiExT group, *n* = 14, 30.4% in MeExT group, and *n* =13, 28.3% in LoExT group) whereas negative emotions were more common in the LoExT group (*n* = 8, 10.5% in HiExT group, *n* = 27, 35.5% in MeExT group, and *n* = 41, 53.9% in LoExT group). Specifically, in the LoExT group, irritability (*n* = 11) and anxiety (*n* = 9) were the most frequently mentioned emotions. In the MeExT group, happiness (*n* = 6), sense of achievement (*n* = 6), and irritability (*n* = 6) were the most frequently mentioned emotions, followed by anxiety (*n* = 4), aggrieved (*n* = 4), and anger (*n* = 4). In the HiExT group, happiness (*n* = 12) was the most common emotion, which was mentioned far more frequently than the remaining emotions.

Table 4.5

Codes and Quotations Relating to Their Emotions

Codes	Quotations
Positive Emotions	
Happiness	"My students are very heart-warming, which makes me happy when I get along with them." (Teacher H4)
Gratification	"I'm gratified to find that my students love me very much, although sometimes I'm harsh on them." (Teacher L2)
Sense of Achievement	"When my students trust me and rely upon me, I feel a sense of achievement for being an HT." (Teacher M4)
Hopefulness	"I'm hopeful about the progress made by the students in my class." (Teacher H4)
Interest	"I can learn something exciting and fun from my students, which makes me feel this job is interesting." (Teacher H2)
Negative Emotions	
Anxiety	"My anxiety is mostly related to my students' score." (Teacher L4)
Irritability	"It is irritating to be an HT especially when you have so much on your plate and parents just sidestep their responsibility." (Teacher L3)
Grievance	"I feel aggrieved when parents complain or doubt the quality of my work." (Teacher L1)
Nervousness	"I feel nervous when my students are about to have examinations. I know everything has been well prepared, but I just feel that's not enough." (Teacher L2)
Anger	"I feel angry when my students behave improperly and when some parents make unreasonable demands." (Teacher M4)
Pressure	"The pressure is more self-driven. It's more from my own expectations of my work." (Teacher L4)

Codes	Quotations
Boredom	"HTs are required to sit in on lots meetings that are long, boring, unproductive, and sometimes even self-indulgent on the part of the meeting leader. This is the most boring part of being an HT." (Teacher L4)
Guilt	"I feel guilty when I have blamed my students wrongly." (Teacher L1)
Sensitivity	"I'm very sensitive to students' mood swings." (Teacher H2)
Fatigue	"Classroom management can be said to be trivial, and to be very complicated and painstaking work. I'm pretty exhausted when dealing with these issues." (Teacher M2)
Disappointment	"I feel disappointed when my students perform badly." (Teacher L3)
Helplessness	"Sometimes I have no idea how to address tricky problems. I don't know what to do or who can help me." (Teacher L1)

Note. The H in H1, H2 … stands for teachers from the high-expectations group. M in M1, M2… stands for teachers from the medium-expectations group. L in L1, L2… stands for teachers from the low-expectations group.

Table 4.6

Number of Teacher Utterances Containing Codes Relating to Their Emotions

Codes	HiExT Group (N = 4)	MeExT Group (N = 4)	LoExT Group (N = 4)	Total
Positive Emotions				
Happiness	12	6	4	22 (47.8%)
Gratification	2	2	4	8 (17.4%)
Sense of achievement	3	6	4	13 (28.3%)
Hopefulness	1	0	1	2 (4.3%)
Interest	1	0	0	1 (2.2%)
Total	19 (41.3%)	14 (30.4%)	13 (28.3%)	46
Negative Emotions				
Anxiety	4	4	9	17 (22.4%)
Irritability	0	6	11	17 (22.4%)
Grievance	0	4	1	5 (6.6%)
Nervousness	0	1	2	3 (3.9%)
Anger	1	4	6	11 (14.5%)
Pressure	0	3	3	6 (7.9%)
Boredom	0	0	2	2 (2.6%)
Guilt	0	0	1	1 (1.3%)
Sensitivity	1	0	0	1 (1.3%)
Fatigue	2	3	0	5 (6.6%)
Disappointment	0	0	2	2 (2.6%)
Helplessness	0	2	4	6 (7.9%)
Total	8 (10.5%)	27 (35.5%)	41 (53.9%)	76

Sources of Emotions. When asked for the sources of their emotions, all participants (n = 12) suggested that their positive emotions (e.g., happiness) came from their interactions with students in their homeroom class and 11 participants reported the positive influence of students' progress. For example, one teacher said that she felt happy when she was trusted by her students, especially when "They were even willing to share their secrets with me rather than their parents or friends" (Teacher H4). Similarly, "Meeting with former students brought

me a sense of achievement" (Teacher L2) and "Learning something new from students increases my interest in this job" (Teacher H2). However, as shown in the examples of quotations in Table 4.5 above, things became complicated when it came to negative emotions. By conducting word searches in Excel, the researcher retrieved relevant utterances and created codes by grouping similar sources (Table 4.7). In particular, six codes emerged, namely, student misbehaviour (*n* = 14, 23.7%), students' fluctuating academic performance (*n* = 10, 16.9%), tedious noninstructional practices (*n* = 10, 16.9%), unsupportive parents (*n* = 10, 16.9%), flaws in the current HT system (*n* = 7, 11.9%), and blame from colleagues/leaders (*n* = 8, 13.6%). When comparing the three TE groups, MeExT reported the highest number (*n* = 25, 42.4%) of negative sources, where students' misbehaviour was mentioned the most frequently. HiExT accounted for the lowest number (*n* = 12, 20.3%) of sources and the most influential factor reported was a decline in student's academic performance. For LoExT (*n* = 22, 37.3%), both student misbehaviour and parents' blame were mentioned most frequently.

In addition to student misbehaviour and their declining academic performance (two most popular codes), teachers from all three groups mentioned how their emotions were specifically impacted by the particularity of the HT position. For example, innumerable noninstructional practices required by other stakeholders indicated the ambiguous scope of HTs' commitments. Similarly, HTs' complaints about structural problems in the current HT system were related to the ambitious goals they were expected to achieve and the insufficient support that they received. As explained by Teacher M2, "HTs are required to work on all 'grey areas' where subject teachers and parents can't or are unwilling to do so." Following the overarching commitment to promote the overall development of students, all participants signalled the same information as Teacher M3 who said:

> I'm aware I need to achieve this, achieve that, but when you ask about what is out of my commitment, I can't figure out anything. I just feel like everything can be counted in my work as long as they are related to students. But the problem is, nothing in school is essentially irrelevant to students. (Teacher M3)

Additionally, it is worth noting that, for those six HTs who spoke about the influences of student academic performance on their emotions, they all pointed out that they felt far more pressured and anxious about students' scores in all subjects rather than the one they taught. As such, it appeared that all HT participants, regardless of their TE, were under pressure from the goal they were expected to achieve in their position and were more vulnerable to external requirements than subject teachers.

Table 4.7

Number of Teacher Utterances Containing Descriptors Relating to the Sources of Negative Emotions

Descriptors	HiExT Group (N = 4)	MeExT Group (N = 4)	LoExT Group (N = 4)	Total
[student misbehaviour | disruptive students | uncooperative students]	3	6	5	14 (23.7%)
[student academic performance | decline | unstable scores]	5	1	4	10 (16.9%)
[noninstructional practices | chores]	3	5	2	10 (16.9%)
[parents' blame | difficult/unsupportive parents]	0	5	5	10 (16.9%)
[flaws in the HT system | structural problems]	1	4	2	7 (11.9%)
[blames/misunderstandings from colleague | blames/misunderstandings from leaders]	0	4	4	8 (13.6%)
Total	12 (20.3%)	25 (42.4%)	22 (37.3%)	59

Awareness of TE. Compared to the codes related to emotions, HT's awareness of their TE was relatively homogeneous, which means no salient difference was found in this theme across three TE groups. However, findings related to this theme are still reported below because they helped understand the implications of this research by showing what could be done to refine teachers' awareness of their own beliefs, and what was missing from teachers' voices in the current literature.

When asked whether they were aware of their expectations for students, all participants admitted that they had different expectations for different students. HT participants in the current study were more inclined to think of individual-level expectations and only four HTs mentioned class-level TE throughout the whole interviews. Ten participants revealed that they usually had higher expectations for high-ability students and lower expectations for low-ability students. For instance, one teacher said:

> I held fairly high expectations for the monitor in my homeroom class, including her scores and other fields such as her character and behaviour. But for another naughty boy in my class, regarding his scores, I just want to say, "leave it alone." All I wish is that he doesn't fight with others in the school and no more complaints from subject teachers. And I felt grateful if it is a normal day for him, although his scores remain poor, at least it is a normal day. (Teacher L2)

As a result, teachers provided dissimilar learning opportunities for students of high and low ability. Specifically, regardless of TE levels, participants shared a similar view that they would like to, "Provide more support for low-ability students than high-ability ones after class, which are usually based on basic/repeated knowledge, while allowing high-ability students more independent learning opportunities" (Teacher H2) and "advanced tasks" (Teacher L2). Two LoExTs reported that they felt "dissimilar learning opportunities is unfair to low-ability students, which might make children feel as though they are being looked down on" (Teacher L1), thus they were trying to eliminate these discrepancies.

Furthermore, half the teachers (n = 6) suggested that their TE constituted two parts: expectations for students' academic scores and ones for students' nonacademic performance. It is unsurprising that HTs did not usually hold the same level of expectations for their students' scores and their performance in other fields. However, it is hard to say which parts were more influential in the teacher–student relationships and had further impact on teachers' emotions. For example, one HT said, "Some students were naughty in school, which gave me a super headache. But most of them are affectionate and when they graduated, they come back to see me every year – which is the happiest moment in my profession" (Teacher L2). As will be further discussed below, this finding provided some rationale for future research to attend to the mechanism and influences of nonacademic TE, which could serve as complementary to the existing academic TE literature.

Perceived Relations Between TE and Emotions. Similar to the subtheme above, no salient difference was found in teachers' perceptions of the relations between their TE and emotions. Specifically, when asked whether teachers felt any relations between their TE and their emotions, nine of 12 participants (three LoExTs, four MeExTs, and two HiExTs) immediately confirmed the existence of the relations in their daily work. As indicated by the participants, these relations tended to become more salient when teachers' expectations of individual students were not being met. In particular, seven of 12 HT participants (two LoExTs, three MeExTs, and two HiExTs) said that they felt disappointed when high-ability students fell short of their expectations whereas they might feel more tolerant when low-

ability students did something wrong. This pattern could be understood in relation to HTs' higher expectations of high-ability students and lower expectations of low achievers, as shown above. With the lower expectations of low achievers, HTs tended to anticipate these students would make mistakes and behave improperly. Additionally, HTs were inclined to pay more attention to low-ability students' behaviour and less on their academic performance. As such, HTs seemed to perceive low achievers' academic failure and their disruptive behaviours as normal but felt disappointed and surprised when high-ability students fell short of their expectations. This could partly explain the differences in the sources of negative emotions found above, where both LoExT and MeExT reported students' misbehaviour as the most frequent factor but HiExT were mainly concerned with a decline in student's academic performance.

On the other hand, six participants (two LoExTs, two MeExTs, and two HiExTs) reported that they felt more positive emotions when interacting with high-ability students for whom they had higher expectations. As suggested by Teacher L4, "high-ability students usually react more actively. They are highly organised and they can take charge of their own study. I feel at ease when I'm teaching and interacting with them." However, as revealed above, HTs reported providing more advanced tasks for high-ability students whereas low-ability students were asked to focus more on repeating practices. Therefore, it was hard to distinguish whether HTs' positive experiences with high achievers were led merely by these students or from the differentiated learning opportunities they designed for each group of students, given teachers' reluctance to repeat basic knowledge by suggesting "they're boring" (Teacher H1).

Despite the pattern mentioned above, no participant in the current study could explain explicitly how their class-level TE were related to their emotions, which was the focus of the current research question. This was understandable because each HT was fully in charge of one homeroom class while being a subject teacher for other class(es). Therefore, HT participants were more inclined to attribute any perceived emotional differences between these classes to their role—whether they worked as an HT or merely as a subject teacher for the specific class. It is worth noting here that despite HT's ambiguous explanations on how they believed their class-level TE were related to their emotions, interesting results emerged from teachers' responses to different encounters. As will be revealed in the following subsections, data on *how teachers reacted to frustrating issues* and *how they were emotionally impacted by similar situations to different degrees* helped illuminate the patterns that teachers themselves had not noticed.

Summary of Theme 1. Whereas the first theme could not explain the relations of TE and emotions directly, it worked as a foundation for the following discussion because the research questions cannot be answered without teachers' own understanding of these two factors. From the results above, it appeared reasonable to conclude that HiExTs reported more positive emotions and less negative emotions than MeExTs and LoExTs. This result was consistent with the findings that emerged from Study 1 in the current doctoral project (see Chapter 3). However, when it came to the sources of negative emotions, regardless of TE levels, all HT participants were negatively influenced by the excessive workloads and external requirements rooted in this specific position. In other words, the particularity of the HT position constituted a potential threat to HTs' emotional experiences, whereas HiExTs seemed to manage to relieve the negative influences more effectively than their counterparts with low TE. As will be discussed further in the discussion section, this pattern could be understood in relation to the gap between *what HTs were expected to achieve* and *what they believed their students could achieve*. With the high standard that HTs were required to achieve, LoExTs seemed to experience more negative emotions related to their potential concerns about their students' abilities. Additionally, the results of the first theme constituted a basis for discussion of the following themes where the variations in HTs' responses to these negative sources could be explored.

4.2.2 Theme 2: Perceptions of Teacher and Student Roles in Learning

Based on the understanding of teachers' own perceptions of their emotions and TE, Theme 2 reported the differences emerging from the interviews in terms of teachers' role identifications of themselves and their students. Therefore, this theme compromises two subsections: perceptions of HT's roles and perceptions of students' roles.

Perceptions of HT's Roles. Teacher participants in different expectation groups showed divergent views of their role as an HT, including the degree to which they thought they should be involved in different scenarios. Regarding the definition of this position, two identifications emerged from the interview data, where one of them was similar to a traditional mother role and the other was more inclined towards the idea of a facilitator. In particular, two LoExTs and one MeExT identified themselves as the "baby-sitter" and "housekeeper" (Teachers L4 and M3) and "mother" (Teacher L3) of their students. As such, they tended to micromanage the students in their homeroom classes. In contrast, two HiExTs (Teachers H4 and H1) regarded themselves as a "listener/sister" or a "brother" in the interactions with their students and the other teacher from the HiExT group said, "Being an

HT is only part of my job and my job is only part of my life. Whatever students have messed up, all I can do is to teach them, but I don't think I need to be emotionally involved" (Teacher H3). It was unsurprising that HT participants perceived themselves more than merely a teacher in their students' daily life, given the particularity of this position. However, it was interesting to find that HT's high expectations of students were related to relatively lower emphasis on their own role in education and therefore contributed to a more equal teacher–student relationship. Additionally, as will be shown below, following these role identifications, HT participants reported divergent teaching practices and emotional strategies, which were, in turn, associated with their emotional experiences.

Participants' disparate understandings of their roles in education were also reflected in the attribution of students' failure or misbehaviour. When talking about the same scenario (Scenario 1 where students cheat in the exam), teachers showed completely different attitudes and emotions. For example, one teacher from the MeExT group said, "I would feel ashamed if my students cheated in the exam because this means that something goes wrong in my work" (Teacher M4), however, one HiExT said, "I won't feel guilty or ashamed as it's the student's mistake, not mine" (Teacher H4). Additionally, regarding the emotions related to students' progress, all participants indicated their happiness and increasing sense of achievement, despite the discrepancy in their attributions of these positive emotions. Specifically, three HiExTs (Teachers H2, H3, and H4) saw their student progress as related to some degree to student effort whereas two LoExTs (Teachers L3 and L4) and one MeExT (Teacher M1) appeared to see themselves as contributing to the progress, by thinking "my teaching methods turn out to be effective" (Teacher L4).

Perceptions of Students' Roles. By examining the practices of the HTs in the three expectation groups, discrepant perceptions of their students' role were discovered. The importance of student's active role in their learning was mentioned 11 times in total, all of which were raised by HiExTs (n = 7, 63.6%) and MeExT (n = 4, 36.4%) who put greater emphasis on students' ownership of their learning and believed that students should be encouraged and supported to actively pursue and take charge of their learning process. LoExTs, instead, largely highlighted the teachers' role and its impact in students' development. This pattern could be understood by the degree to which the teachers believed that their students could achieve. Specifically, with higher expectations of their students, HiExTs might have had more faith in their students' ability to achieve their goals and, therefore, expected the students to be more than a passive receiver in the learning process. However, accompanied by the relatively low expectations and concerns about students'

potential, LoExTs seemed to prefer to rely on themselves to take charge of every detail as a means of risk-aversion. As such, HiExTs appreciated students' autonomy in the teaching practices and, "Make them play a role as the assistant or even leaders" (Teacher H1) in some situations. However, teachers in the LoExT group believed that, "Most children are in the middle, which means how they perform in the test totally depends on how harsh their teachers are. … most children need to be closely supervised except for those beyond redemption" (Teacher L4). A similar discrepancy was also observed in the learning opportunities provided for the students, which will be more fully investigated in a later part of this section (Theme 3). In addition to disciplined study, differences in the beliefs about the students' role also impacted children's engagement and their development in other fields, such as their leadership capacity. For instance, regarding the questions about carrying out extra-curriculum activities, Teacher H4 reported that "I usually let the class leaders deal with these things. They are highly organised and better at encouraging other children even than me," however, Teacher L4 argued, "I know some teachers leave these issues to their class leaders. But I feel like I couldn't find a reliable student to do these things instead of me." Teachers H4 and L4 were particularly interesting cases as they had worked in the same school and for similar numbers of years, which meant that they might have been faced with the same kinds of task requirements and class leaders. However, these two teachers (one HiExT and one LoExT) had completely different attitudes and actions related to their expectations. As shown in the current study, LoExTs' beliefs seemed to impose a burden on the role of teachers in student development, which might lead teachers to employ exhaustive instructional strategies and in turn increased HTs' stresses due to the feeling of excessive responsibilities.

Furthermore, it is interesting to note that, regarding the third scenario on students' progress, although all HT participants mentioned that they would like to praise their students in class, four teachers (two LoExTs and two MeExTs) stated that they would warn the student not to be overconfident at the same time, which showed their concern for their students' future performance and their doubts about their students' ability to react to their progress appropriately. Furthermore, despite finding that all teachers planned to praise their students who made improvements, as a role model for the class, only one HiExT stated that she would like to, "Ask the student's opinion first to see if she/he wants to be praised openly" (Teacher H2), which showed a strong awareness and respect for students' autonomy and feelings.

Summary of Theme 2. HT participants in the current study showed salient variations in their perceptions of teachers' roles and students' roles in education. These disparities were

further related to the framework of teaching practices HTs preferred and how they interacted with their students in and after class, which seemed, in turn, to mediate the outcomes and HT's corresponding emotions. On one hand, allowing students more autonomy and involving them actively in teaching practices indicated a possibility for HTs to relieve their workloads and pressures to a certain degree. On the other hand, the differences in the perceptions of the key role in education were also associated with teachers' emotional process which involved the appraisal of the outcomes and the emotional regulations. As shown above, and also below, by highlighting the role of the teacher themselves, LoExTs seemed to be more likely to get emotionally involved in frustrating situations and attribute students' failure to themselves (i.e., perceive students' cheating as a flaw in HT's work).

4.2.3 Theme 3: Capacity for Resilience in Practices

Theme 3 concerns divergence in HT's capacity for resilience, which might contribute to understanding why teachers with different levels of TE might have various emotional experiences. This section compromises three subthemes: 1) emotional regulations, 2) teaching approaches, and 3) resources mobilisation, which will be reported respectively in the following sections.

Emotional Regulation.

Preventive Actions. Teachers reported different reactions to the situations they encountered. When comparing the codes across the three TE groups, teachers' responses to scenarios could be largely classified into two categories: preventive work (n = 18) and reactive work (n = 7). As shown in the interview data, teachers in the high-expectation group were more inclined to take preventive actions (n = 12 in HiExT group, 5 in MeExT group, and 1 in LoExT group) to preclude unsatisfactory situations, whereas teachers in the low-expectations group preferred to persist with their original and often traditional plans (n = 0 in HiExT group, 2 in MeExT group, and 5 in LoExT group).

Regarding scenarios which might trigger negative emotions, participants showed varied responses and attitudes towards them, especially for the fourth scenario where children were not engaged in the class. The fourth scenario was related to teaching practices, which meant teachers had the chance to anticipate and perceive students' reactions and to modify their teaching plan interactively. Regarding this situation, all four HiExTs stated that it would not influence their emotions too much because "There is no reason to be upset. When you get upset, the class goes further into a wrong direction." (Teacher H3). Instead of negative emotions, HiExTs cared more about the potential causes: "Why should my class make

children silent? Is it because my class doesn't satisfy children's interests, or is it because it's beyond their ability?" (Teacher H4). It was interesting to find that one HiExT would even "appreciate this situation" and, "Take students' silence as the uniqueness of the class, which provides a chance for me to design something new or change my existing teaching plans" (Teacher H2). Despite different explanations of their emotional experiences, all HiExTs reported that they would like to, "Tailor the teaching plan accordingly to promote the class climate" (Teacher H1). HiExTs' desire to figure out the reasons behind students' unresponsiveness indicated their willingness to adjust to or prevent the situation. The positive attitudes underlying their preventive actions might be related to their high TE of the students, which seemed to encourage them to believe that the situation could be changed with joint effort. Additionally, although the teaching did not proceed as hoped, HiExTs appreciated students' characters rather than merely blaming them for behaving in a way that teachers could not control or might not like.

In contrast, the remaining eight teachers (four LoExT and four MeExT) explicitly stated that this scenario would place them "into a tight corner" (Teacher L1). When asked to elaborate how they would react to or address this issue, all four teachers from the LoExT group and two teachers from MeExT group said they "had no choice" (Teacher L4) but to continue the teaching by doing a "monologue" (Teachers M1), or "with volunteer students only, usually the high-ability students" (Teacher L4), or "picking students on the spot randomly" (Teachers L1 and M3), even "regardless of their willingness to answer the questions" (Teachers L3, L2, and M1). LoExTs' responses here echoed their perceptions of their students mentioned above, in which students were regarded as passive receivers in teaching and learning. Furthermore, as revealed in LoExTs' reactions, it could be detected that they perceived this frustrating situation as something they could not change. Highlighting the teachers' role as the master of the class, LoExTs seemed to regard students' unresponsiveness as an irreconcilable factor, which predicted increasing negative emotions such as anxiety and hopelessness. Additionally, their passive coping strategy might also be related to their teaching priority for finishing the class first and their lack of adaptive teaching methods, as will be shown below.

Attention Deployment. Another strong subtheme found as part of HT emotional responses was where the teachers reported to place their attention during work time. As shown above in Theme 1, there were no major differences in the sources of HTs' negative emotions, which means that regardless of TE levels, all HT participants were expected to deal with similar challenges. However, even under the same circumstance, some teachers

mentioned several times when they deployed their attentions on positive factors (n = 8) whereas others appeared to focus more on negative factors (n = 8), which could lead to various emotional experiences. Specifically, HiExT (n = 5, 62.5%) and MeExTs (n = 3, 37.5%) paid more attention to positive factors whereas MeExTs (n = 4, 50%) and LoExTs (n = 4, 50%) focused more on negative factors.

Six teachers (three MeExTs and three LoExTs) suggested that they easily became angry and frustrated about students' misbehaviour. By contrast, three HiExTs considered that they tended to ignore these issues, as long as they were minor enough, and appeared to focus more on positive sources instead. As explained by one HiExT:

> I feel like most mistakes made by children in daily life are not that serious, I mean, they are not principle problems. …… For example, boys in my class tend to play basketball during lunch time – which is not allowed. But I don't think that's a big deal. These issues are all tiny things and as a human being, we all make mistakes. (Teacher H3)

In contrast, three LoExTs and two MeExTs suggested that they had at least one experience where they "lost composure because of students' small mistakes" (Teacher L1). For example, Teacher M4 (MeExT) relayed an experience during which students were arguing with her. This experience frustrated her to the point that she slammed some papers down on a table and broke down in tears. After sharing their stories, three teachers admitted that "when I look back, it shouldn't happen" (Teacher L3), which showed HT's additional guilt or regret related to these emotional outbursts triggered by minor mistakes.

The examples above illustrate the degree to which HTs with different expectations paid attention to students' misbehaviour—the most frustrating emotional source in the teaching profession identified in this study. Among most of the LoExTs, there was a clear struggle present as they focused "fixedly on students' every action and behaviour" (Teacher L4), which was largely led by their self-portrait as a mother. In other words, LoExTs searched for full control over what happened in their classroom based on their expectations. Once the lived experiences led to a drop in their expectations, the tension signalled that something was out of balance and attracted nearly all of their attention, which, in turn, resulted in emotional outbursts. In contrast, following the belief that children would finally "come back on the right track" (Teacher H2), HiExTs were inclined to allocate their attention to preventive actions (mentioned above) and were more tolerant of small mistakes made by students in their daily life.

Cognitive Changes. Cognitive changes might involve a reappraisal and reinterpretation of a situation. Interpreting the same situation from different perspectives led HTs to various conclusions on the causes and impacts, which in turn influenced their own emotions. As mentioned earlier, in contrast to one MeExT who perceived students' cheating as a "shame," Teacher H2 (HiExT) considered "a mistake as a pathway for children to grow." Reappraisal and reinterpretation strategies were mentioned 17 times in total whereas direct reactions (e.g., blame the student immediately) were mentioned eight times across all three TE groups. In particular, all four participants from the HiExT group frequently mentioned these reappraisal strategies (n = 10) whereas such techniques were less frequently mentioned in the other two expectation groups (n = 3 in MeExT group and n = 4 in LoExT group). For example, when talking about the misbehaviour of students, Teacher L3 (LoExT) perceived them as a kind of "aggression" and said, "I usually lost my temper and argued with disruptive male students in class." The challenge of student disruptive behaviours was no different for HiExTs. For instance, Teacher H1 (HiExT) replied, "That's annoying, especially for novice teachers like me several years ago." However, faced with this same challenge, Teacher H1 continued to say:

> But now I have learnt to regulate my emotions by the use of self-talk. I usually think about the potential reasons for these behaviours. I mean, sometimes children just want to attract more attention from their teachers through this means. Attributing these misbehaviours to students' inhibiting sense of insecurity rather than their slights makes me calm down. And then I can really take a breather to figure out what's going on and how to address the problem. Being mad is never the key, fixing the issues is.

Similarly, when asked how they felt when students were not engaged in their class, Teacher H4 (HiExT) responded:

> Sometimes the class climate largely depends on children's temporary feelings. For example, when students have just finished a gruelling exam, they could be too exhausted to follow you, no matter how much they like your class. Also, I found children are usually sleepy in the first class of a day.

The examples above suggested HiExTs' curiosity about the causes behind the encounters and the degree to which they took different explanations into account. In comparison, participants in the low-expectation group tended to react to the situation directly and interpret the frustrating results in a negative way. It is worth noting that cognitive changes here do not mean to shrink responsibility or find excuses for the unsatisfactory scenarios. Rather, HiExTs showed a more active attitude to explore all potential reasons

(instead of merely blaming their students) and address the demands of a problem instead of withdrawing or focusing on its emotional consequences. This interpretive process, by its nature, was associated with HTs' beliefs of different stakeholders in education, for example, the degree to which the students should be blamed for the mistake and how the situation could be addressed and by whom. With high expectations of students, HiExTs seemed to have more trust, empathy, and understanding of their students and thus, they were more likely to look on the bright side when things went wrong. In contrast, LoExTs reported a more direct and simplistic thinking process, in which teachers were more inclined to take it for granted that anything out of their control was inexorably in conflict with them. Following this view, LoExTs seemed to more easily get angry and feel hopeless, which was an immediate and direct reaction to negative situations. Furthermore, as shown above, LoExTs also experienced emotional repercussions where subsequent negative emotions (i.e., guilt) might occur following their instant outburst (i.e., anger).

Emotional Boundaries. It is interesting to find that teachers treated the emotional boundaries differently, which appeared to be related to their TE levels. Three codes emerged from the interview which were mentioned several times across each group: 1) clear line between private life and work (n = 6 in total, 3 in HiExT group, 3 in MeExT group); 2) sharing emotions with students (n = 2 in total, 2 in HiExT group); and 3) hide or suppress negative emotions (n = 5 in total, 1 in HiExT group, 2 in MeExT group, 2 in LoExT group).

As revealed by the interviews, although all teachers in the three TE groups admitted their emotional burnout (except one HiExT), there were significant discrepancies in their reactions to it between HiExTs and LoExTs. Regarding HiExTs, even if they experienced emotional exhaustion, they knew how to get over it without serious struggle by maintaining emotional boundaries or distance. Emotional boundaries or distance here refer to the line between private life and work, and the extent to which teachers disclose themselves with their students which was mentioned by three HiExTs (Teacher H2, H4, and H3). As explained by HiExTs, separating the emotions caused by work from their personal life helped HTs find a way to calm down, which also implied a window (Teacher H4) for them to reinterpret the situation and figure out effective solutions. By comparison, teachers in the low-expectation group were more inclined to conceptualise their professional roles as involving intangible and boundless responsibility, which some reported was difficult to separate from their private lives. For example, Teacher L4 was fairly concerned about her student even during her sick leave and "checked the scores immediately once I opened my eyes after general anaesthesia surgery."

Additionally, HiExTs emphasised the importance of grasping the distance between teachers and students. Although teachers in all three groups mentioned that "it is unwise to be too close to students" (Teacher L1), HiExTs showed a more appropriate grasp instead of refusing all self-disclosure during teacher–student interactions. Whereas four teachers from low- and medium-expectation groups (2 MeExTs and 2 LoExTs) tended to hide or suppress their negative emotions from their students, thinking, "Teachers shouldn't let students know she is frustrated" (Teacher L1), HiExTs showed more openness to share their emotions with their students. As explained by some HiExTs, they perceived this as an alternative to signal to their students what was happening and they believed that, "Students are sensitive to teachers' reactions and most of them are nice and really care about how their teachers feel" (Teacher H1). For instance, Teacher H3 said: "sometimes I show my children that I'm unhappy—but actually I'm not that much, and then they quickly realise that something has gone wrong. This is even more effective than criticising them harshly, which usually in turn irritates yourself to death." By leveraging the interactions with students, HiExTs were possibly more able to prevent themselves from potential negative situations and, at the same time, contributed to a closer teacher–student relationship. Furthermore, expecting more of students appeared to encourage HiExTs to believe in students' ability to react to their emotions positively, whereas LoExTs reported crude methods by simply concealing their emotions. As shown in the literature review chapter, the suppression of feelings might further predict negative practices and outcomes. Similarly with other patterns in this theme, the differences in how teachers defined the emotional boundaries were captured and compared directly from teachers' answers. However, why HTs with different TEs showed such disparities could not be explained from one perspective. Given the emotional experiences were dynamic, interactive, and reciprocal, it was necessary to explore this field across all themes, as will be shown in the discussion section.

Teaching Approaches.

Priorities and Foci. By conducting word searches in Excel, the researcher retrieved relevant utterances on HTs' priority and foci during their teaching (Table 4.8). Teachers' priorities in terms of subject teaching comprised two main codes, finishing the plan on time (n = 8) or ensuring students' engagement (n = 6). An interesting difference emerging from the data was that the teachers from the LoExT and MeExT group focused more on finishing the class as planned (n =3 in MeExT group and n = 5 in LoExT group), whereas HiExTs (n =

6) paid more attention to "the quality of the teaching, including the class climate and the reactions of their students" (Teacher H1).

Table 4.8

Number of Teacher Utterances Containing Descriptors Related to Teachers' Priority or Foci in Teaching

Descriptors	HiExT Group (N = 4)	MeExT Group (N = 4)	LoExT Group (N = 4)
[achieve teaching objectives on time | finish each step | finish plan | not postpone]	0	3	5
[students' engagement | responses | reactions | feelings]	6	0	0

When asked what they would do when faced with students' silent unresponsiveness, Teacher H1 said, "I would rather stop for a while to talk with my student about something outside of the book" whereas Teacher L2 said, "I'll try to follow the original plan and finish as much as I can." The LoExTs appeared to focus more on whether the learning tasks could be sequentially organised for their students rather than whether their students were actually involved. When asked to elaborate, Teacher L2 responded that she perceived "finishing the class is one of the most essential parts of my work" and Teacher L4 stated that "there are always some students who don't engage whereas others do. I can't postpone every time as each class has its objectives." In other words, she was treating this instance as something out of her control and would rather complete the course with the few students (usually the high-ability students) who were always engaged. This priority was followed by her statement regarding how she saw herself as a teacher: "I see myself as a 'wage earner'—I get paid, teach and then go. So, I just want to finish the class on time. I prefer teaching those (active) students, which makes me happy. And I feel that wasting my class time with students who don't want to learn is usually futile." However, as mentioned previously, LoExTs such as Teacher L4 also showed a strong sense of responsibility who even "checked the scores immediately after general anaesthesia surgery" (Teacher L4). By combining the data here and those in previous themes, it could be argued that LoExTs' dilemma reflected or was rooted in several conflicts: 1) a mismatch in LoExTs' self-portrait as a teacher (they emphasised their key role in one way but felt reluctant to fulfil this role in another way), and 2) an imbalance between LoExTs' heightened alertness and their passive coping (they were sensitive and exposed to intense emotions but they responded to them by simply denying the existence of

these struggles), or rather, these LoExTs had no other effective choices but to prioritise essential tasks (e.g., finishing the class) as the outlet for their continuous frustrations.

Adaptive Teaching Methods. As shown previously in Theme 2, HiExT participants mentioned that emotional episodes could probably be a precious chance to improve the way they approached and thought about teaching and to make adjustments as necessary. By conducting word searches in Excel, the researcher retrieved relevant utterances on teaching methods. As shown in Table 4.9 below, nine teaching methods emerged from the interviews, which were mentioned 32 times in total across the three TE groups. In particular, HiExTs mentioned more frequently (n = 20, 62.5%) about the activities that they were providing for their students in and after class than teachers in the other two groups (n = 7, 21.9% in MeExT group and n = 5, 15.6% in LoExT group). For instance, Teacher H3 emphasised the importance of making the activities appealing to students by suggesting that: "only when I feel that my class is interesting, then the students will get motivated and engaged. So, the point is how I make the class fun and to improve my teaching ability." As indicated in the interviews, adaptive teaching not only helped foster intrinsic motivation within learners but also contributed to student performance and the class climate, which in turn prevented teachers from frustration related to unsatisfactory outcomes.

Table 4.9

Number of Teacher Utterances Containing Codes Where Teachers Applied Adaptive Teaching Methods

Codes	HiExT Group (N = 4)	MeExT Group (N = 4)	LoExT Group (N = 4)
[Role Play]	2	1	0
[Scene Practice]	1	0	0
[Painting]	1	0	0
[Multimedia]	1	0	2
[Craftwork]	1	0	0
[Workshop]	5	1	0
[Humorous Language/jokes]	4	2	2
[Customised Homework]	4	3	1
[Supplementary Readings]	1	0	0
Total	20 (62.5%)	7(21.9%)	5(15.6%)

Resource Mobilisation.

Social Networks. Relational resilience is developed through a web of supportive interpersonal relationships (e.g., HTs–students, HTs–parents, and HTs–subject teachers), and highlights the significance of mutual empowerment, growth, and support at the centre of the resilience process (Day & Gu, 2013). In an earlier section it was suggested that, on the one hand, HiExTs had clearer emotional boundaries between their job and their personal life, and on the other hand, they valued highly their students' role in education. However, this does not mean that HiExTs absolved themselves from their responsibility and let their students succeed or fail. Rather, HiExTs appeared from the evidence in their interviews to appreciate considerably all stakeholders' roles (e.g., colleagues and school leaders, parents, students, and administrators) in education and had higher reliance on them instead of working alone (Table 4.10). The researcher conducted word searches in Excel to find out who HTs had involved in their work and grouped similar utterances into one code in Table 4.10. Overall, five stakeholders were mentioned as a source of support across all three TE groups (n = 33). In particular, HiExTs seemed to appreciate these interpersonal supports more frequently (n = 18, 54.5%) than teachers in the other two groups (n =11, 33.3% in MeExT group and n = 4, 12.1% in LoExT group).

For instance, one essential component of an HT's job was to promote moral and character education for all students and to ensure a positive socioemotional climate in class, which constituted a relatively huge workload for HTs. Whereas all participants recognised the burden raised by this expectation, HTs in the current study showed varied strategies to achieve their goal. As mentioned before, all four HiExTs tended to give students autonomy to organise their activities whereas LoExTs took charge of each step. In addition to contributions to students' capacity, involving different stakeholders in the educational process sometimes also worked as a strategy of doing more with less. As explained by Teacher H4: "letting class leaders organise these activities also helps to improve the cohesion of the class at the same time." Similarly, a consistent pattern emerged from the responses across HiExTs where they appreciated the extensive support from administrators and leaders in terms of the major challenges they faced, such as in Scenarios 1 (students' cheating) and 2 (parents' complaints). HiExTs also showed a stronger awareness of involving students' parents in the learning process and "keep[ing] them informed of students' progress" (Teacher H4).

Table 4.10

Number of Teacher Utterances Containing Descriptors Where Teachers Utilise Their Social Networks

Descriptors	HiExT Group (N = 4)	MeExT Group (N = 4)	LoExT Group (N =4)
[students | class leaders | class representatives]	3	0	0
[parents]	4	1	1
[colleagues | subject teachers | experienced teachers]	6	3	3
[leaders | principals]	1	4	0
[other school departments | student affairs office | academic affair office]	4	3	0
Total	18 (54.5%)	11 (33.3%)	4 (12.1%)

Materials. Data in this study suggested how HiExTs marshalled human and material resources in support of their learning and classroom management, while also capturing the dilemmas and tensions with which HTs must contend. Materials here refer to the resources that teachers designed to guide their instruction and the tools that teachers might use for their classroom management. Regarding high school curriculum materials, these often take the form of print-based teacher guides and student textbooks. However, regarding moral education and classroom management, participants reported confusion because there were no designed materials or resources and "it all relies on HTs" (Teacher M2). Despite general dilemmas, the researcher managed to capture several utterances containing the materials HTs used in their practices by conducting word searches in Excel and, it seemed, HiExTs (n = 4, 80%) were more active in mobilising and developing materials both for in-class teaching and after-class activities (Table 4.11). For example, Teacher H1 wove "magnolia in campus" into his Chinese literature class and Teacher H3 designed various "video or interactive, online materials" which were attractive to students in class. Additionally, teachers incorporated their own expertise into teaching, for instance, Teacher M2 was fluent in English so sometimes he taught mathematics in English and provided supplementary materials for his students, which not only contributed to richness and interest in his teaching but also his authority as an outstanding teacher in class. It appeared from the evidence in the interviews that HiExTs

were more willing to incorporate or develop external materials in their teaching, whereas LoExTs seemed to rely on what already existed. As shown in Table 4.11, although the additional materials were mentioned more frequently by HiExTs than teachers in the other two groups, they were still limited regarding the number and contents. This was understandable because involving external materials implied additional workload and proposed high demands on teachers' expertise, especially for HTs who already reported excessive workloads and overwhelming emotions. However, this trend at least revealed an awareness that, compared to LoExTs, HiExTs seemed to be more willing to go beyond the established system to support their students to achieve at higher levels.

Table 4.11

Number of Teacher Utterances Containing Descriptors Where Teachers Utilise Additional Materials to Support Their Work

Descriptors	HiExT Group (N = 4)	MeExT Group (N = 4)	LoExT Group (N = 4)
[magnolia in campus]	1	0	0
[self-developed materials | online materials | readings]	3	1	0
Total	4 (80%)	1 (20%)	0 (0%)

Summary of Theme 3. The results of Theme 3 appeared to indicate divergence in the teaching practices of HTs with different TEs and their varied emotional strategies. To be specific, HiExTs reported less emotional trauma by adopting more effective emotional regulation, teaching approaches, and resource mobilisation. This pattern could be partly explained by the relations between these strategies and the outcomes. For example, adaptive teaching methods might predict better student outcomes, which were more likely to prevent possible negative situations. At the same time, adopting effective emotional regulation seemed to be positively related to HiExTs' resilience, which helped them to be less impacted by a specific situation than their counterparts. Additionally, this theme should be discussed with the earlier themes on the sources of HTs' negative emotions and teachers' perceptions of their own role and their students' role in teaching and learning. The discussion section below will combine these themes together to answer the research questions in more depth.

4.3 Discussion

As shown in the previous chapter, the first study of this doctoral project found that HTs' emotions were associated with their expectations of students in their homeroom class.

That is, positive emotions increased as TE increased, and negative emotions decreased when TE were higher. The question of interest in Study 2 was to determine whether teachers in different expectation groups seemed to exhibit differential behaviours towards their students, which in turn, may have indirectly signified how their emotions and expectations were related. The interview results in this study indicated that teachers with different levels of TE seemed to vary in their perceptions of the teacher/student role in education and revealed variation in emotional strategies, teaching approaches, and their use of contextual resources. Along with discussing the results reported above, this section will answer the two research questions: 1) In what ways, if any, do HTs with different levels of TE show different patterns of emotions? and 2) In what ways, if any, do HTs with different levels of TE and corresponding emotions respond to scenarios differently? After that, the limitations and implications of this study will be explained.

4.3.1 Answers to Research Question (1): In What Ways, If Any, Do HTs With Different Levels of Teacher Expectations Show Different Patterns of Emotions?

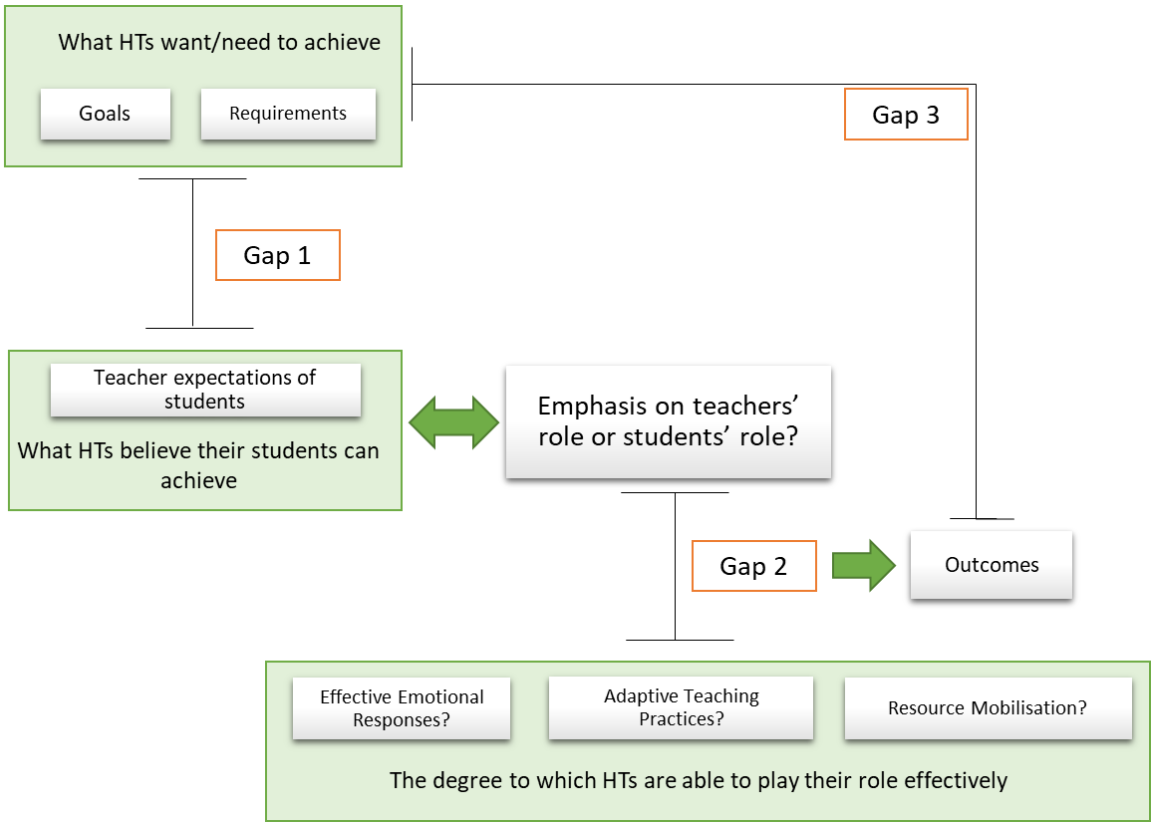
The model in Figure 4.2 below is designed based on the three themes reported above, with the aim of explaining the mismatches in HTs' experiences that emerged from the interview results. As shown in the model, the first gap (Gap 1) concerned the degree to which teachers' TE were aligned with the external requirements from different stakeholders (e.g., parents, colleagues, and school leaders). As reported earlier, and also below, one challenge that all teachers were facing was the excessive external demands and requirements. Under this circumstance, LoExTs who had lower faith in their students' ability which seemed to risk more negative emotions (e.g., anxiety). This seemed to be caused by the significant gap between what they were required to achieve and what they believed their students could achieve. Furthermore, as shown in Theme 2 above, TE levels seemed to interact with teachers' role identifications, that was, HiExTs highlighted students' active role whereas LoExTs emphasised more their own role. When combined this finding with Theme 3 that LoExTs appeared to have lower resilience and less effective strategies in practice, Gap 2 emerged here in which LoExTs highlighted their critical role on one hand but failed to fulfil their role on the other hand. The relatively unsatisfying outcomes related to Gap 2 then created a new mismatch (Gap 3) where LoExTs risked more negative emotions because they were more likely to fail to meet the external requirements.

The three gaps shown in the model reflected where and how those tensions seemed to occur, which could help HTs better understand how their emotions were triggered. From the

results, it appeared that the magnitude of these gaps seemed to be mediated by TE (more intense for LoExTs whereas less intense for HiExTs). Additionally, the model should be understood within appraisal theory (e.g., Scherer, 1999), where the emotional process is led by judgement or appraisal containing the interpretation of a transaction regarding its significance or relevance for the individual's motives, goals, or concerns. In other words, TE levels appeared to mediate the magnitude of gaps in the model, but more importantly, how teachers responded to these gaps also seemed to be related to their TE, which in turn had possible influences on the teachers' emotional experiences. The following sections will explain each gap in more detail.

Figure 4.2

Model of The Relations Between TE And Teachers' Emotions



Gap 1: Goals/External Requirements and Teacher Expectations of Students.

Despite the ambiguous descriptions of HTs' commitments, most HT participants in the current study showed a strong sense of responsibility and an awareness of what they wanted to achieve in this position. This consensus underlying HTs' negative emotions related to their commitments and external expectations can be understood in three ways. One possible explanation could be HTs' intimate emotional bonds with their students, which encouraged them to be continuously devoted, which has been found both in the literature (Yin & Lee, 2012) and in this study. Secondly, the structural elements of the HT system should also be considered. All participants in this study confirmed that HTs were selected by school leaders, which meant that teachers with lower performance were more likely to have already been prevented from taking up this position. The third explanation could be the cultural traditions in China, where the teaching profession is deeply influenced by Confucianism (Lim & Thien, 2020) and the public's strict demands for teachers (X. Gao, 2011). As demonstrated in Chapter 2 (literature review) and later in Chapter 6 (general discussion), although the teacher-reverence culture of Confucianism improves teachers' professional authority (J. Chen, 2016), it empowers the public to be demanding and requires teachers to be morally and ethically impeccable (X. Gao, 2011). Considering these factors together could explain why both LoExTs and HiExTs seemed to share similar standards of goals and reported being similarly affected by the external requirements.

Examined within the HT group, given that teachers were vulnerable to external scrutiny and requirements and had little chance to alter or adjust them, HTs' different expectations for their students worked as a key variation in their way of fulfilling these goals. HiExTs believed in their students' ability to achieve their best and contribute to teachers' fulfilment of existing goals, whereas LoExTs had less confidence in their students' performance that led to several concerns. Thus, compared to HiExTs, there appeared to be a more obvious gap between LoExTs' teaching beliefs and the existing goals and requirements, which seemed to result in more intense emotions, such as hopelessness, frustration, and anxiety.

As presented in the results section, regardless of HTs' TE levels, all participants had a clear awareness on the ambitious goals they were expected to achieve (despite minor variations in priorities) as well as corresponding workloads and intricate personal relationships, which constituted a major source of their negative emotions. This finding aligns with HTs' overall portrait in previous literature, where this group has long been perceived as struggling with the emotional dilemma by playing multiple roles beyond the normal

classroom experience (S. Liu & Hallinger, 2018; Y. Wang et al., 2015). As such, when interpreting the results of this study, it is worth remembering that, although HiExTs seemed to experience more positive emotions than LoExTs, it did not mean that they managed to completely prevent themselves from negative emotions. Rather, this study illuminated the necessity and rationale of attending to HTs' emotions by indicating the possible different psychological mechanisms of LoExTs and HiExTs. This is especially of significance because existing research has focused more on deficits or problems (e.g., what is going wrong), instead of the strategies that encourage teachers to stay (e.g., what is going right, Hong, 2012).

Gap 2: Emphasis on Teachers' Role and Ability to Fulfil the Role. As shown in the results section, HiExTs and LoExTs seemed to show divergence in their perceptions of the teacher and student role in education. By emphasising the key role of HTs, LoExTs appeared to be more likely to struggle with excessive workloads (e.g., exhaustive instructional strategies) and corresponding overwhelming emotions, such as fatigue. On the other hand, as revealed in this study, LoExTs reported relatively weak capacity for resilience related to their practices. These two factors, hence, formed a possible gap between teachers' beliefs in their irreplaceable role and their insufficient ability to fulfil this role, which might intensify a sense of losing control over the processes and tasks they felt responsible for as teachers.

Specifically, HiExTs' student-centred beliefs underlying their inquiry-based approach seemed to promote positive appraisals and thus elicit pleasant emotions in response to the same scenarios (Jiang et al., 2021). By contrast, it was more possible for LoExTs to set themselves up for failure when they seemed to be less likely to fulfil their ambitious teaching goals. Consequently, teachers who were less confident about a specific activity might have considered it as a threat and, therefore, tried to avoid it (Bandura, 1977). This could partly explain the contradictions in LoExTs' behaviours and their beliefs. By avoiding challenging situations or merely enduring the frustrations, a teacher who was in this dilemma might find it even harder to develop into an effective and resilient teacher. This seemed to, in turn, undermine teachers' capacity shown in Gap 2 and might indicate a possible vicious circle.

Additionally, the mismatch between LoExTs' understanding of their own role and their insufficient capacity to fulfil this role indicated a cognitive dissonance, which has been found to be related to negative emotions (M. Zheng, 2020). As shown in earlier research drawing on experiences within teacher narratives, pleasant emotions were found to signify cognitive congruence, a sense of balance between teachers' beliefs and the interpretation of

the instances; in comparison, devastating and debilitating emotions were found to signify cognitive dissonance (Ruohotie-Lyhty, 2016). The increasing gap between LoExTs' self-portraits as a parent and the uncontrollable situations seemed to intensify such cognitive dissonance, leading to more possible negative emotions.

Gap 3: Outcomes and Goals. Accompanied by the gaps mentioned above, it is unsurprising that LoExTs' lack of effective teaching practices and emotional regulation appeared to predict less promising outcomes. Consequently, a direct gap between the relatively strict goal and discouraging outcomes emerged where LoExTs might risk blame or questions from other stakeholders (e.g., other subject teachers) in education. These negative triggers may partly explain why LoExTs were more likely to experience intense emotions frequently. However, as mentioned above, teachers' experiences seemed to be related not only to the event itself, but also might be associated with individual's appraisals of the situations and their responses.

In addition to the variation in the direct gap between outcomes and goals, LoExTs and HiExTs also seemed to show different emotional responses to the tensions that occurred. Although the sources of variation in teachers' appraisals or reinterpretations of the situations is beyond the scope of this research, it is important to note that data in the current study seemed to have illuminated the possible role of TE in this process. That is, the appraisals of unsatisfactory situations (e.g., three gaps in the model) and corresponding emotions were mediated by, and would mediate, TE. Specifically, as shown in the result section, HTs with different TE reported varied judgements of the situation (e.g., how serious it was), divergent attribution process (e.g., who was to be blamed), and different solutions (e.g., how to fix the situation). Teachers' different responses and reactions will be discussed further below in the responses to Research Question 2. The point here is that, as a response to the trigger (e.g., the gap between outcomes and goals), these different interpretations and reactions seemed to, in turn, mediate teachers' emotions and beliefs. From the data in this study, it appeared reasonable to conclude that LoExTs, who were struggling with how to navigate the pressures of teaching and frustrating situations, might need to be facilitated and supported by engaging in mindful attribution work surrounding the perceived outcomes of their teaching practices.

Referring back to the model in Figure 4.2, all three gaps contributed to a possible explanation on why LoExTs reported more negative emotions, by showing the mismatches between the goals/roles they would have liked to fulfil and their failures to do so. As discussed above, the lens of appraisal theory can be used to interpret how these tensions could ultimately lead to negative emotions. However, the difference here is that, whereas the

first gap in the model reflected LoExTs' potential concerns related to their students (LoExTs seemed to be less likely to believe that their students could behave in a way to approach their goals), the second and third gaps were more associated with teachers' emotional strategies and their professional skills. Thus, it is worth remembering the distinction revealed here between *I don't believe this could be achieved* and *I don't know how to achieve this*. Only when the potential patterns have been understood, can HTs be better supported by equipping them with effective approaches in practices, or knowledge / adjustments of teaching beliefs and emotions, or both.

Furthermore, given the cyclical nature of the emotional process (Corcoran & Tormey, 2012), it is necessary to perceive the model depicted in Figure 4.2 as a dynamic experience where continual interactions exist between each component. In addition, it is important to bear in mind that there are interactions moving both ways. For example, teachers' emotional resilience in Gap 2 seemed to mediate how they reacted to the outcomes and the corresponding gaps, with the reverse also true. Additionally, contextual factors are constantly influencing each component, such as personal goals, teaching beliefs, and individual's expressions of emotion.

4.3.2 Answers to Research Question (2): In What Ways, If Any, Do HTs With Different Levels of Teacher Expectations and Corresponding Emotions Respond to Scenarios Differently?

This study's findings corroborated the view that emotions and beliefs might be related to teachers' daily experiences and to the ways that they interpreted these encounters to inform future behaviours (Barcelos & Ruohotie-Lyhty, 2018). HTs with different levels of TEs in this study reported salient variations in practices. However, given the interrelations between TE and emotions mentioned above, it is hard to distinguish whether these divergences in practices were led by TE or emotions, or both. Further, it should be remembered that these were small groups of teachers (only four in each TE group) and therefore drawing any firm conclusions related to specific groups based on this qualitative data is unwarranted. Nevertheless, considering the relations of beliefs with emotions are dynamic, interactive and reciprocal, where cognitions influence emotions and vice versa (Barcelos & Ruohotie-Lyhty, 2018), it is reasonable to discuss these factors as a whole, as shown below.

As indicated in the results section, differences in teachers' practices were found mainly in three fields regarding their capacity for resilience, namely, emotional regulation, teaching approaches, and the mobilisation of resources. Acknowledging the small sample,

findings from this study were consistent with previous literature on teacher expectancy effects, where HiExTs have been found to behave in a more inspiring and proactive way than their counterparts with low expectations (S. Wang et al., 2019). Similarly, results shown in this study were aligned with previous research on emotions, which has shown that positive emotions predict more student-centred approaches to teaching (J. Chen, 2019) and inquiry-based instruction (Jiang et al., 2021), whereas negative emotions relate to knowledge transmission (J. Chen, 2019) and direct instruction (Jiang et al., 2021). Additionally, this study also echoed earlier findings on emotional boundaries between students and teachers, which indicated that an appropriate emotional distance helped teachers to achieve a balance between a sense of professionalism and a helpful level of involvement (Aultman et al., 2009).

In addition to the consistent findings mentioned above, several interesting results could be observed through the lens of LoExTs' experiences. As suggested in previous TE effects research (e.g., S. Wang et al., 2019), HiExTs provided a more careful framework for students' learning than LoExTs. For example, compared to LoExTs, HiExTs tended to provide more class-level feedback, more orientation statements, and more statements involving students' previous knowledge and learning experiences. It appeared that these approaches implied larger devotion and workload than the passive coping strategies that LoExTs might prefer. However, although confirming earlier findings related to HiExTs, this study contributed to this field by showing the patterns underlying the traits of LoExTs. In particular, the current study revealed that LoExTs seemed to respond to challenging situations in a less careful way, for instance, by merely ignoring low-ability students or completely complying with the lesson plan, regardless of student needs. However, the results also indicated that LoExTs seemed to be more likely to suffer from the potential workload caused by these less effective approaches and, more importantly, the corresponding discouraging outcomes. For example, when LoExTs prioritised finishing the class regardless of students' involvement, the question remained on the degree to which their teaching could be effective. As a result, it seemed possible that LoExTs might have had to compromise more after-class time to train the low-ability students, which implied larger workloads and could be in turn negatively related to their emotional experiences. As such, behaving in a low-expectation way seemed to fail to benefit teachers with less workload, rather, LoExTs might have had to work even harder to achieve their goal and risked more negative emotions.

From another perspective, the LoExTs' approaches shown in the current study and in previous literature could also be understood in relation to their teaching beliefs. As discussed above, LoExTs emphasised their own role and thus seemed to be more inclined to adopt

exhaustive pedagogical strategies and micromanage their students. In other words, being a LoExT and behaving in a passive way was not always teachers' subjective choice to absolve their responsibility, rather, it could happen unintentionally or even reluctantly. Thus, it is worth thinking about how teachers could be better supported and what could be improved in the current system to help prevent them from experiencing such a dilemma. If the LoExTs could have been provided with professional opportunities for sharing their emotional experiences and finding more effective strategies to navigate emotionally charged situations, then they might have formed more positive teaching beliefs. Furthermore, bearing in mind that resilience is something that can be developed through a protective and supportive environment (Castro et al., 2010), it is possible for teachers to learn, train, and nurture their resilience. As such, by showing the differences between HiExTs and LoExTs, the current study sheds some light on the importance of developing an environment that allows teachers to form a more resilient and committed identity, which will not only contribute to student outcomes but also to teachers themselves. Nevertheless, all HT respondents in the current study suggested that they had rarely received professional development on how to regulate emotions in their teaching practices or how to prevent and recover from emotional trauma. This is a message worth listening to, especially for the contexts where schools are facing the challenge of supporting and retaining qualified HTs/teachers. A more supportive system should be established which genuinely cares about teachers' perspective and facilitates preservice teachers.

In sum, the above discussion indicated a possibility that the relations between TE and emotions might be partly attributed to the tensions embedded in teaching beliefs and how teachers performed in their profession. This study found that, regardless of the level of TE, all Chinese HT participants had relatively high professional goals and self-expectations, which might be driven by strict scrutiny from the public (X. Gao, 2011) and the heavy societal expectations embedded in the teacher-reverence culture (X. Gao, 2011) in the Chinese context. However, as revealed in the current study, there was an obvious mismatch in LoExTs' beliefs about *what they want/need to achieve, what they believed their students could achieve* and *what they believed they were able to do*. Additionally, the lack of effective strategies strengthened LoExTs' dilemma in which they seemed to be aware of their vulnerability and frustrations but might have been less likely to respond to or regulate their emotions effectively. Generally, the findings in this study contributed to an insightful understanding about teachers' various emotional patterns (e.g., why HiExTs seemed to experience more positive emotions and less negative emotions than others) through the

psychological lenses of TE and emotions. Despite the exploratory and descriptive nature of this study, as shown below, the results that emerged from the interviews did provide some possible implications for teacher educators and school leaders in response to the current challenge in supporting and retaining qualified HTs.

4.4 Limitations

The current study has several limitations which also suggest directions for further exploration. Firstly, for a qualitative study with a small sample size (four teachers in each TE group), the findings of the current study can only be tentative and should be generalised with caution. Variations in geographic context, education level, school types, and teacher types might all lead to divergent findings in similar studies. Nevertheless, this study is the first-ever attempt to look at the emotions of HTs with different class-level TE in the Chinese high school context. This provides some directions for future explorations in this field.

Another limitation is related to conducting the interviews online. Compared with the traditional face-to-face approach, using Zoom software made it less possible to capture the interviewees' body language (Janghorban et al., 2014). In addition, it was possible that interviewees may have abbreviated their answers and acted less naturally than they may have in an onsite interview. Unfortunately, face-to-face interviews were not possible due to the COVID-19 pandemic.

Finally, the self-reported data in the current study were just HTs' anticipated answers. As suggested in earlier studies (e.g., Van Zoest et al., 2002), concerns cannot be eliminated that how teachers describe they would respond to an instance in an interview setting could be different from what they would actually do in their daily professional lives. Therefore, classroom-based studies would be necessary to address these concerns. This would provide an opportunity to compare teachers' responses in reality and in interviews. Such research has the potential to further enhance understandings of teacher responses and the potential relations of their expectations and emotions, which could support the design of subsequent relevant professional learning and development.

4.5 Implications for Future Research and Practice

Although this study was qualitative, the findings did provide insights into the dynamics and complexities of the relations between TE, teacher emotions and teaching practices, which can be incorporated into theory. Specifically, previous literature on class-level TE effects has indicated that high TE positively predicted more proactive teaching practices and higher student achievement after student prior achievement was controlled (S.

Wang et al., 2018). However, little has been known about what high TE means to teachers themselves. From this viewpoint, this study has theoretical implications by illuminating and explaining the potential of TE as related to teachers' own professional experiences, which might work as a starting point for further research to explore these factors in more depth. However, TE measured in this study was only related to student's academic performance. As revealed by participants, there were variations in HTs' expectations of their students' academic development and nonacademic development. Thus, it is important for future research to explore how these two fields are related and how such relations are associated with teachers' practices and their emotions.

Furthermore, although the research on the associations between teachers' beliefs and emotions is still in its infancy, it has continually become a prominent research area in informing teacher education and professional development (Barcelos & Ruohotie-Lyhty, 2018). A comprehensive understanding of TE is of significance for researchers to make use of the rich findings in this area to reinforce teacher education. However, there is a remarkable lack of such content in current teacher education programmes around the world (Rubie-Davies et al., 2018), let alone instruction on how TE could be used to regulate teachers' emotions. Until recent years, teacher education has counted on facilitating teachers with advanced information and strategies to reflect and develop their beliefs without paying substantial attention to teacher emotions (Ruohotie-Lyhty, 2013). However, echoed by previous literature on the key role of emotions in education (Arens & Morin, 2016), this study showed that how HTs interacted with their negative emotions was not a given, but that it could be regulated and influenced. Additionally, the development of teaching beliefs could not occur without emotional involvement. Thus, it is essential for teacher education programmes and/or professional learning development to introduce these two fields together into their courses, especially for HTs whose overall portrait, emerging from the literature and this study, seems insecure and pressured. In addition to advanced skills of class management and pedagogical practices, it is also necessary to help HTs understand how to respond to their emotions effectively and how to prevent themselves from potential emotional trauma. By doing this, Chinese HTs might be facilitated to perform in a way which indeed improves their teaching effectiveness and also contributes to teachers' own experiences and lives.

Finally, as shown in the literature review (Chapter 2), most existing research on teachers' experiences is explored through the perspective of the whole teacher group, which might compromise the particularity of HTs. This study filled in this gap by paying specific attention to this group in Chinese high schools. This study helped promote understandings of

the HT group and called for more empathetic support for them, which could help relieve teachers' reluctance to take up this position and help explain the shortage of experienced HTs in schools (Z. Zhao, 2014).

4.6 Conclusions

This study is the second study of this doctoral project, and elaborated on the findings from Study 1 (a quantitative study). With reliance on individual interviews, the current study has investigated how HTs' expectations for their students were related to their emotions and how such interactions influenced their teaching practices.

HTs' responses in this study, on the one hand, were consistent with previous literature on HTs' vulnerability that seems to be a consequence of the particularity of this position. By exploring HTs' emotional episodes, the study showed how HTs struggled with various triggers of negative emotions. On the other hand, data in this study illuminated that HTs with higher expectations were more inclined to emphasise students' active role in education and thus adopted adaptive teaching approaches. Additionally, HTs with higher expectations showed stronger capacity for resilience, by using various emotional strategies and mobilising different contextual resources. These variations, in turn, predicted HTs' experiences of emotional labour in a positive way.

In sum, the study revealed the dilemma that HTs were experiencing; more significantly, however, it indicated an opportunity for HTs that they could diminish their consequential negative emotions to some degree by expecting more of their students. By disclosing how and why teachers with higher TE experienced more positive emotions, this study could serve as a concise starting point to foster the professional learning development of teachers by equipping them with effective pedagogical approaches and emotional strategies. Additionally, given the key role of teachers' beliefs and emotions in teaching practices and in student development (Arens & Morin, 2016), future studies could work on these factors further based on the findings of the current study, in order to support both teachers and their students to achieve their potential.

Chapter 5: Study 3
Expecting the Best of Students: Teacher Expectations and Student Self-Concept

The previous two empirical studies presented in Chapters 3 and 4 respectively provided evidence for the relations between class-level TE and teacher emotions in the context of HTs in Chinese high schools. It was also found that TE may not only be related to teacher emotions but also associated with HTs' classroom instructional behaviours and their ways of interacting with and responding to students. These findings of TE effects, however, focused only on the teacher level. A remaining question was whether the expectations teachers formed at the beginning of the school year would predict their students' development, in particular, students' SC. To explore how students' SC was related to TE, the current study tracked the SC outcomes of students whose HTs had different TE. Students' SC was measured twice in the same setting—initially in the first month of the academic year (September, 2020) and the later in the last month of the academic year (June, 2021). Detailed procedures and instruments that correspond to this study will be presented below.

The research questions pertaining to the current study were:

(1) Are there any relations between the SC outcomes of students and their HTs' expectations of them?

(2) If students' SC is associated with their HTs' expectations of them, are there any differences in the associations with different domains of SC?

This chapter (Chapter 5) was therefore designed to explore HTs' expectation effects on their students' SC. To present the third of the three studies in this doctoral research project, this chapter begins with a brief description of the current study and then presents the method employed by the researcher. Following that, the results and discussion pertaining to this study will be provided before consideration of the limitations and implications.

5.1 Method

5.1.1 Participants

This third study in the doctoral project involved 30 HTs from the teacher samples taking part in Study 1. HT participants in this study comprised five Chinese teachers (16.7%), 13 English teachers (43.3%), six mathematics teachers (20%), and six teachers in other subjects (20%, chemistry, physics, and politics). With these teachers' assistance, we recruited 482 high school students in their classrooms. As shown in Figure 5.1, during the course of the

study, 134 (27.8%) students (from different schools and classrooms and evenly distributed across grades and genders) completed only the first questionnaire but not the second one. Imputing the missing data risks underestimating variability and adding random bias to the data (Patrician, 2002). Therefore, these students' data were not included in the analyses and the final student sample in this study involved 348 students and their HTs (n = 30). Table 5.1 presents the attributes of the respondents at these two time points and the final sample. Of the 348 remaining student participants, 50.3% were female (n = 175), and 54.3% self-identified as Grade 10 (n = 189) and 45.7% as Grade 11 (n = 159). No Grade 12 students were recruited because they have the national college entrance examination (Gaokao) at the beginning of June and students usually leave school to prepare for the examination the week preceding. The advantage of having the students of HTs in Studies 1 and 2 was that the data from these three studies could be linked.

Figure 5.1

Timeline Flow Diagram

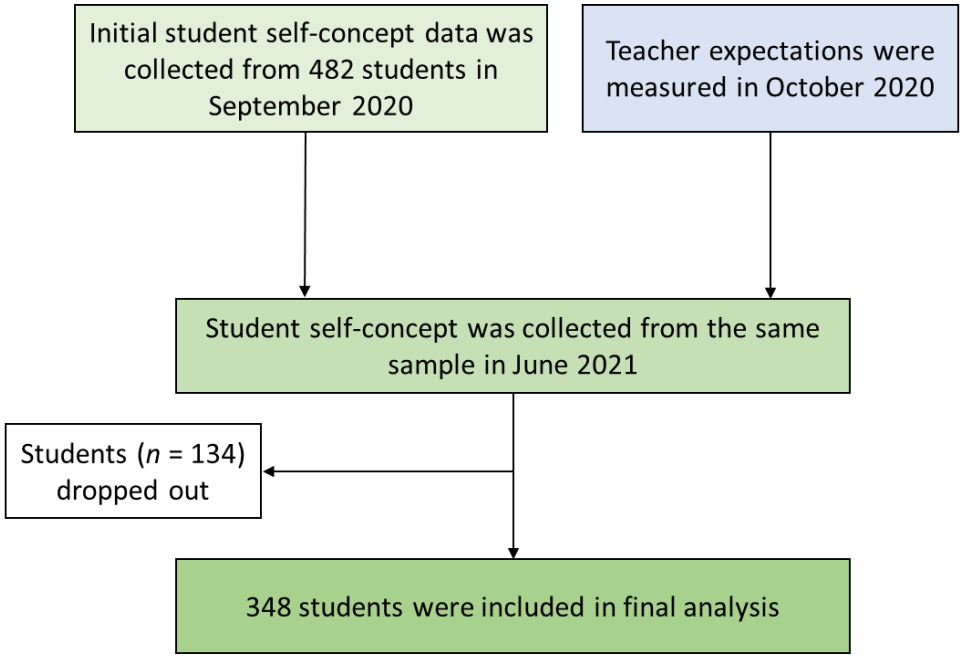


Table 5.1

Demographics of Student Participants

Variables	SC1 (n = 482)	SC1 only (n = 134)	SC1 and SC2 (n = 348)
Gender			
Female	232 (48.1%)	57 (42.5%)	175 (50.3%)
Male	250 (51.9%)	77 (57.5%)	173 (49.7%)
Grade			
Grade 10	244 (50.6%)	55 (41.0%)	189 (54.3%)
Grade 11	238 (49.4%)	79 (59.0%)	159 (45.7%)
Grade 12	0 (0%)	0 (0%)	0 (0%)

Note. SC1 = student self-concept measured at the beginning of the school year (Time 1). SC2 = student self-concept measured at the end of the school year (Time 2).

5.1.2 Measures

Teacher Expectations. Data collected from Study 1 were used here as a measure of TE. As shown in Chapter 3, in October 2020, the HT participants rated their expectations for their students' achievement (mathematics, English, and Chinese) using a teacher expectation survey scale adapted from Rubie-Davies et al. (2006). The choices for the expected score were divided into 10 levels, covering the range of scores from 60 to 150 (the total score). Teacher participants were invited to choose the level that they believed each student would achieve at the end of June 2021 when the academic year ended. Next, teachers' ratings were compared with student actual achievement at the beginning of the semester (their scores in the latest final examination). The researcher then regressed teachers' ratings onto actual achievement to obtain the standardised residuals, which indicated the degree to which teachers were over- or underestimating their students relative to actual achievement. Based on the standardised residuals for each score, class-level TEs were then calculated by averaging the residuals for each HT. Further details have been provided in Study 1 (Chapter 3).

Student Self-concept. The current study explored how students' SC was related to TE across time. Students' SC was measured at two time points (the beginning of September 2020 and the end of June 2021) to create a time lag of approximately 10 months between the two measurement points. This also enabled the researcher to get a baseline SC so that any changes over the year could be associated with TE. The instrument for this study was a

shortened version of the Self-Description Questionnaire III (SDQIII; Marsh & O'Neill, 1984) which was designed to measure multidimensional academic and nonacademic SC for late adolescents. As mentioned in the literature review, the SDQ is theoretically related to the hierarchical model of SC (Shavelson et al., 1976).The development of the SDQIII was based on two previous versions of the SDQ for preadolescents, and the SDQII for early adolescents. Earlier studies have reported that the internal consistency reliability coefficients of the SDQIII ranged from 0.79 to 0.95 (mean α = 0.90; Byrne, 1988), and test–retest reliability coefficients ranged from 0.66 to 0.94 (mean r = 0.86; Marsh et al., 1986). The psychometric properties of the SDQIII are considered exceptionally superior (Byrne, 1988). Further studies have employed the instrument in different contexts and found it to be a reliable and valid measure of the SC of late adolescents (e.g., Faria, 1996; Gujare & Tiwari, 2016).

The original SDQIII is a 136-item questionnaire which measures four academic scales (Verbal, Mathematics, General School, and Problem Solving/Creativity), eight nonacademic scales, and one Overall Global SC scale. Given the HTs' commitments, six irrelevant subscales (Physical Abilities, Physical Appearance, Relations with Same Sex Peers, Relations with Opposite Sex Peers, Relations with Parents, and Spirituality) were excluded from the current project. Given that one aim of the current study was to compare the differences in students' specific aspects of SC, the researcher removed the Overall Global SC scale as well as the General School subscale so that the academic ones were specific to particular curriculum areas. Thus, the version of the SDQIII used in this study only included the following nonacademic SC subscales: Honesty/Truthfulness (12 items) and Emotional Stability (10 items), and academic ones: Problem Solving/Creativity (10 items), Mathematics (10 items), and Verbal (10 items; see Table 5.2 for sample items and Appendix C for more details). The original 8-point Likert scale was modified for the present study to a 7-point scale (1 = *strongly disagree*, 2 = *disagree*, 3 = *slightly disagree*, 4 = *neither agree nor disagree*, 5 = *slightly agree*, 6 = *agree*, and 7 = *strongly agree*) to ensure consistency across all measurement tools employed. The questionnaire was also professionally translated into Mandarin and cross-checked by experienced researchers who were fluent in both English and Mandarin. To guarantee appropriate translation, the questionnaires were then back-translated from Chinese to English by a separate translator, and adjustments were then made appropriately before the questionnaire was distributed to the Chinese participants (Alreck & Settle, 1995).

Table 5.2

All Scales and Sample Items for the SC Questionnaire Measures

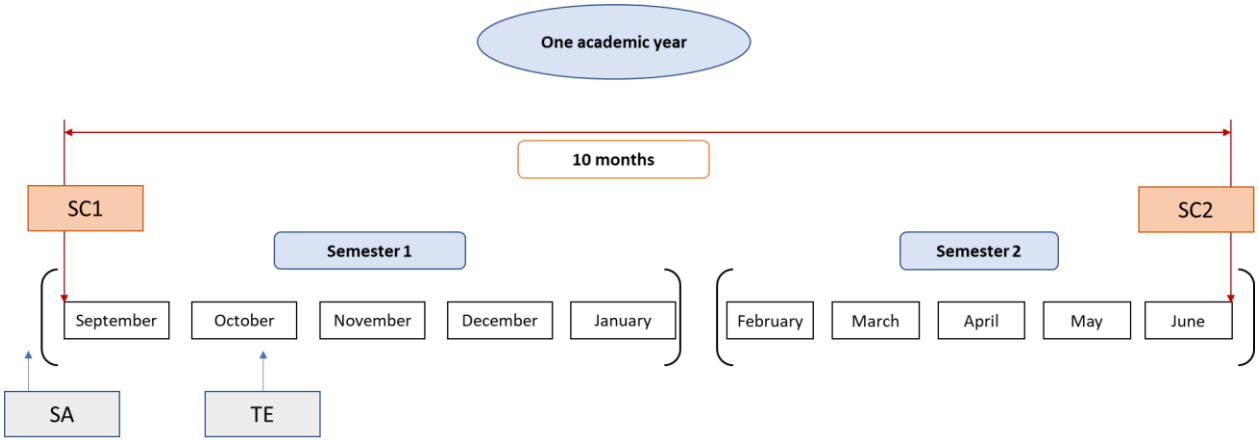
Scales	Subscales	Item Number	Sample Item
Nonacademic SC	Honesty/Truthfulness	12	I often tell small lies to avoid embarrassing situations
	Emotional Stability	10	I am often depressed
Academic SC	Problem Solving/Creativity	10	I enjoy working out new ways of solving problems
	Mathematics	10	I find many mathematical problems interesting and challenging
	Verbal	10	I have trouble expressing myself when trying to write something

5.1.3 Procedures

Ethical approval was first gained for this study (Ref. 024436) from the UAHPEC. The data collection procedures for this study were similar to those described in Study 1, as both studies involved teacher participants from the same HT sample and students from their homeroom classes. However, apart from data related to TE evaluated in Study 1, HTs did not directly participate in Study 3. The participating teachers helped send the PISs and CFs to students and parents/caregivers of students under 16 years old in their homeroom class. The online link for the student questionnaire was shown on student PISs and students who were willing to participate could complete it online privately. As such, teachers would not have known whether their students took part in this research. As shown in Figure 5.2, in addition to the TE collected in October 2020, students' SC was measured through a Qualtrics link twice in the same setting—initially in the first month of the academic year (September, 2020) and the later in the last month of the academic year (June, 2021). Tracking students' SC aimed to compare whether the SC of students in the classes of different HTs changed over time and whether these changes were associated with the TE. This was designed to enable the prediction of TE effects on students' SC, controlling for baseline SC.

Figure 5.2

Time Nodes for The TE and Student SC Data Collection



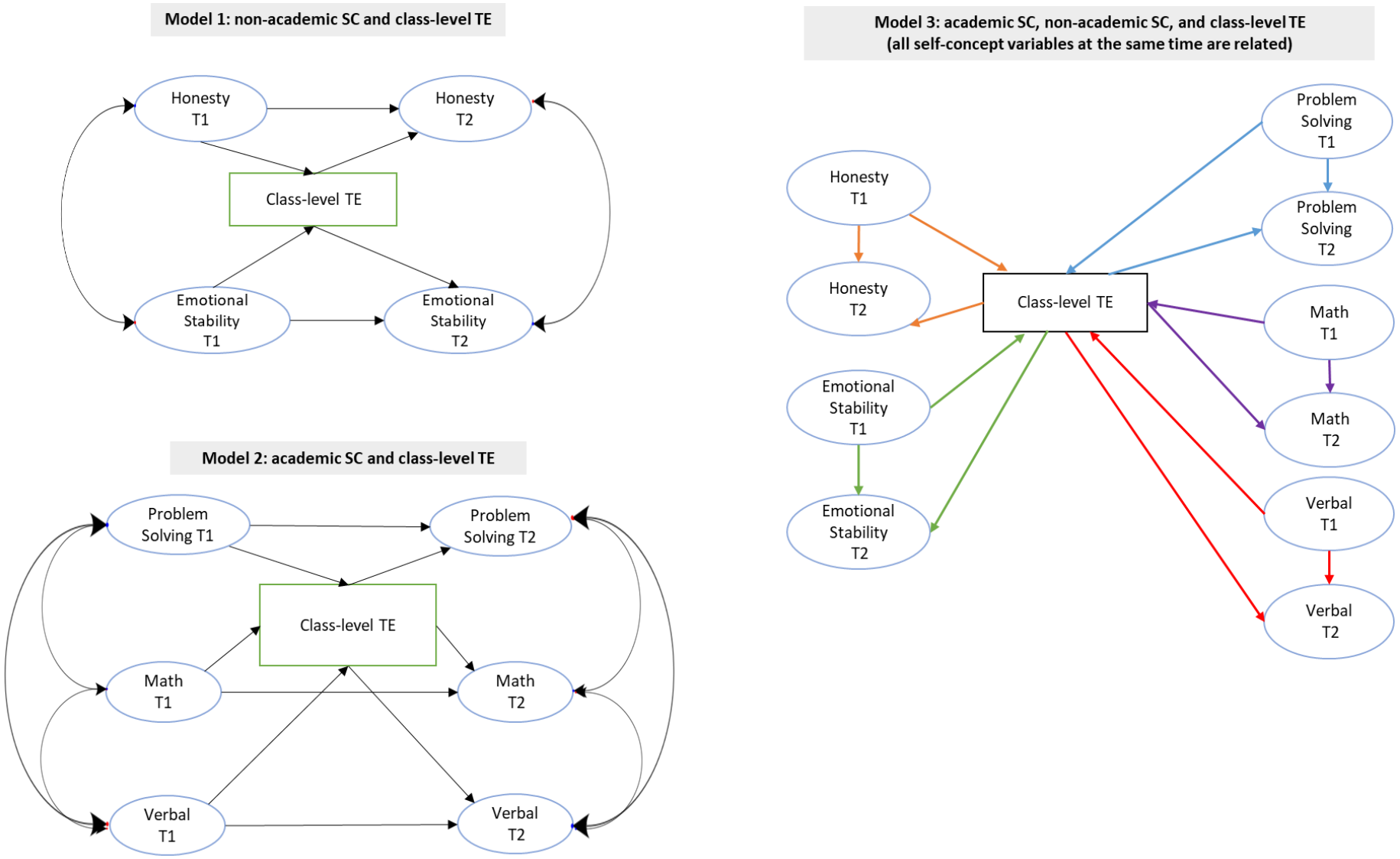
Note. SA = student achievement, TE = teacher expectations, SC = student self-concept.

5.1.4 The Conceptual Model

Given the literature review (see Chapter 2) and research questions related to this study, three conceptual models were proposed and empirically tested in the current study. As shown in Chapter 2, TE are predicted by various factors including students' behaviour and performance (S. Wang et al., 2018), which are all intrinsically related to student SC. Therefore, it was hypothesised that the TE measured in this study may be predicted by students' initial SC measured at Time 1. Additionally, it was hypothesised that TE were likely to be involved in the development of student SC (see details in Chapter 2), which led to the possible paths from TE to SC measured at Time 2. Following this view, three conceptual models below posit that TE may be related to student academic and nonacademic SC respectively, and as a whole (Figure 5.3).

Figure 5.3

Conceptual Model Showing the Hypothesised Relations Between the Variables Investigated in This Study



5.1.5 Data Analysis

Analysis of class-level TE in this study was the same as in Study 1, and was explained in Chapter 3. Regarding SC data collected at the two time points, CFA was conducted respectively. This step was to verify that each measurement model, leading to the final structural equation model, showed good model fit and represented the data well. Based on the CFA results, means and standard deviations for the questionnaire factors were calculated, along with McDonald's ω reliability estimates and Pearson's bivariate correlations. These preliminary descriptive analyses were then followed by SEM techniques based on the maximum-likelihood estimation method, which aimed to explore the relations between TE and student SC variables. The results of these tests are presented in the results section which follows. All analyses in this study were conducted using the statistical software IBM SPSS Statistics 27 and AMOS 27. Similar to Study 1, a range of fit indices ($\chi 2$/df, TLI, CFI, SRMR, and RMSEA) will be reported in the results section of this chapter. As shown in Table 5.3, the acceptable levels of each of those indices were adopted from a number of reviews on goodness-of-fit indices and were used to determine the fit of the measurement and structural equation models presented in the results section.

Further, because the student number in each class was small (*Median* = 5) in the current study, it was not considered appropriate to nest the data and complete two-level analyses. This is because the power in multi-level models depends on the sample size of both level-2 units (which in this case is the teachers) and level-1 units (which in this case is the students).

Table 5.3

Acceptable Levels of Fit Indices Regarding CFA

Indices	Perfect fit	Good fit	Rationale
$\chi 2$/df	$\chi 2$/df≤ 2	$\chi 2$/df≤ 3	R. B. Kline, 2015
RMSEA	RMSEA ≤ .05	RMSEA ≤ .08	Hooper et al., 2008
SRMR	SRMR ≤ .05	SRMR ≤ .08	Brown, 2015
			L. Hu & Bentler, 1999
NNFI (TLI)	NNFI ≥ .95	NNFI ≥ .90	Tabachnick & Fidell, 2007
			B. Thompson, 2004
CFI	CFI ≥ .95	CFI ≥ .90	L. Hu & Bentler, 1999
			Tabachnick & Fidell, 2007

5.2 Results

5.2.1 Missing Data Analysis

As mentioned above, 482 students initially took part in the survey. However, data for 134 (27.8%) students were removed from the current study during the data-cleaning process because they did not complete the second survey. Before removing the data, independent sample *t* tests were conducted to compare the Time 1 SC of the students who dropped out halfway (n = 134) and all remaining student participants (n = 348). Table 5.4 provides the means and standard deviations for the data-set. As shown in Table 5.4, no statistically significant difference was found in the baseline student SC who withdrew from the study and the remaining students (p-value > 0.05 in all cases). Given that these data were missing at random, the research adopted the deletion method rather than imputation, because imputation methods risk underestimating variability and introducing bias to the data (Patrician, 2002).

Table 5.4

Means and Standard Deviations for Variables for Different Sample Groups

Variables	Participants in Time 1 only (n = 134)		Participants in both (n = 348)		*P*-value
	M	SD	M	SD	
Honesty/Truthfulness (Time 1)	5.740	.844	5.688	.806	.534
Emotional Stability (Time 1)	4.924	1.141	4.922	1.137	.985
Problem Solving (Time 1)	4.860	.763	4.722	.773	.083
Mathematics (Time 1)	4.884	1.232	4.805	1.216	.528
Verbal (Time 1)	4.719	1.080	4.617	1.112	.368

5.2.2 The Measurement Model on Student Self-Concept (CFA)

To establish the factor structure of the student SC questionnaire, each subscale (namely, Honesty/Truthfulness, Emotional Stability, Problem Solving, Mathematics, and Verbal) was examined first using a CFA technique. In CFA, a latent variable is measured based on several indicators which can be measured directly. In doing so, items were dropped if: (1) the item's factor loadings were less than 0.40, or (2) one (redundant) item in a pair of items had high residual covariance (mostly due to similar wording or content). Table 5.5 describes the fit indices for the 10 models, each of which had at least three items and showed acceptable fit to the data. Therefore, these 10 factors were retained for further analyses.

Table 5.5

Goodness-of-Fit Indices for Each Subscale in Student SC Questionnaire

	Time point	χ2 (df)	χ2/df	TLI	CFI	SRMR	RMSEA
Acceptable Values		$p > .05$	< 3	> .90	> .90	< .08	< .08
Honesty	T1	9.097(5) $p > .05$	1.819	.980	.990	.0267	.049
	T2	7.374(5) $p > .05$	1.475	.987	.994	.0228	.037
Emotional Stability	T1	52.211 (20) $p > .05$	2.611	.959	.971	.0368	.068
	T2	54.415 (20) $p > .05$	2.721	.961	.972	.0357	.070
Problem Solving	T1	5.775 (5) $p > .05$	1.155	.993	.997	.0237	.021
	T2	7.283 (5) $p > .05$	1.457	.986	.993	.0256	.036
Mathematics	T1	11.682(9) $p > .05$	1.298	.995	.997	.0205	.029
	T2	26.674(9) $p > .05$	2.964	.977	.986	.0270	.075
Verbal	T1	7.568(5) $p > .05$	1.514	.986	.993	.0236	.038
	T2	11.460(5) $p > .05$	2.292	.973	.986	.0282	.061

5.2.3 Descriptive Statistics

Following the CFA results, means, standard deviations, and the McDonald's ω of internal consistency were calculated for all factors identified earlier (Table 5.6). Additionally, as shown in Table 5.7, Pearson's bivariate correlations among these factors and TE were calculated. Statistically significant correlations were found between TE and all SC factors at Time 2 ($p < .05$).

Table 5.6

Descriptive Statistics and McDonald's ω by Factor

Scale	M (SD)	ω	Skew	Kurtosis
Nonacademic self-concept				
T1 Honesty	5.28 (1.13)	.74	-.39	-.54
T1 Emotional Stability	4.77 (1.17)	.87	-.30	-.07
T2 Honesty	5.27 (1.07)	.75	-.36	-.62
T2 Emotional Stability	4.76 (1.20)	.88	-.10	-.32
Academic self-concept				
T1 Problem Solving	4.86 (1.00)	.67	-.28	-.15
T1 Mathematics	4.53 (1.25)	.86	-.04	-.61
T1 Verbal	4.66 (1.13)	.76	-.12	-.17
T2 Problem Solving	4.89 (1.08)	.74	-.13	-.40
T2 Mathematics	4.37 (1.41)	.90	.09	-.74
T2 Verbal	4.76 (1.19)	.80	-.02	-.43

Note. $N = 348$ for all factors.

Table 5.7

Pearson's Bivariate Correlations among the SC Factors and TE

Scale	Nonacademic self-concept				Academic self-concept						TE
	T1 Honesty	T1 Emotional Stability	T2 Honesty	T2 Emotional Stability	T1 Problem Solving	T1 Maths	T1 Verbal	T2 Problem Solving	T2 Maths	T2 Verbal	
Nonacademic self-concept											
T1 Honesty	-										
T1 Emotional Stability	.363***	-									
T2 Honesty	.543***	.220***	-								
T2 Emotional Stability	.321***	.639***	.386***	-							
Academic self-concept											
T1 Problem Solving	.321***	.511***	.207***	.358***	-						
T1 Mathematics	.254***	.381***	.164**	.286***	.532***	-					
T1Verbal	.315***	.381***	.203**	.281***	.519***	.150**	-				
T2 Problem Solving	.313***	.326***	.415***	.541***	.560***	.390***	.355***	-			
T2 Mathematics	.191***	.238***	.280***	.367***	.386***	.674***	.108*	.508***	-		
T2Verbal	.181***	.223***	.282***	.313***	.327***	.006	.616***	.464***	.088	-	
TE	.204***	.147**	.276***	.251***	.072	.098	.110*	.169**	.184***	.120*	-

Note. ***$p < .001$, **$p < .01$, *$p < .05$

5.2.4 Exploring Relations: A Structural Equation Model

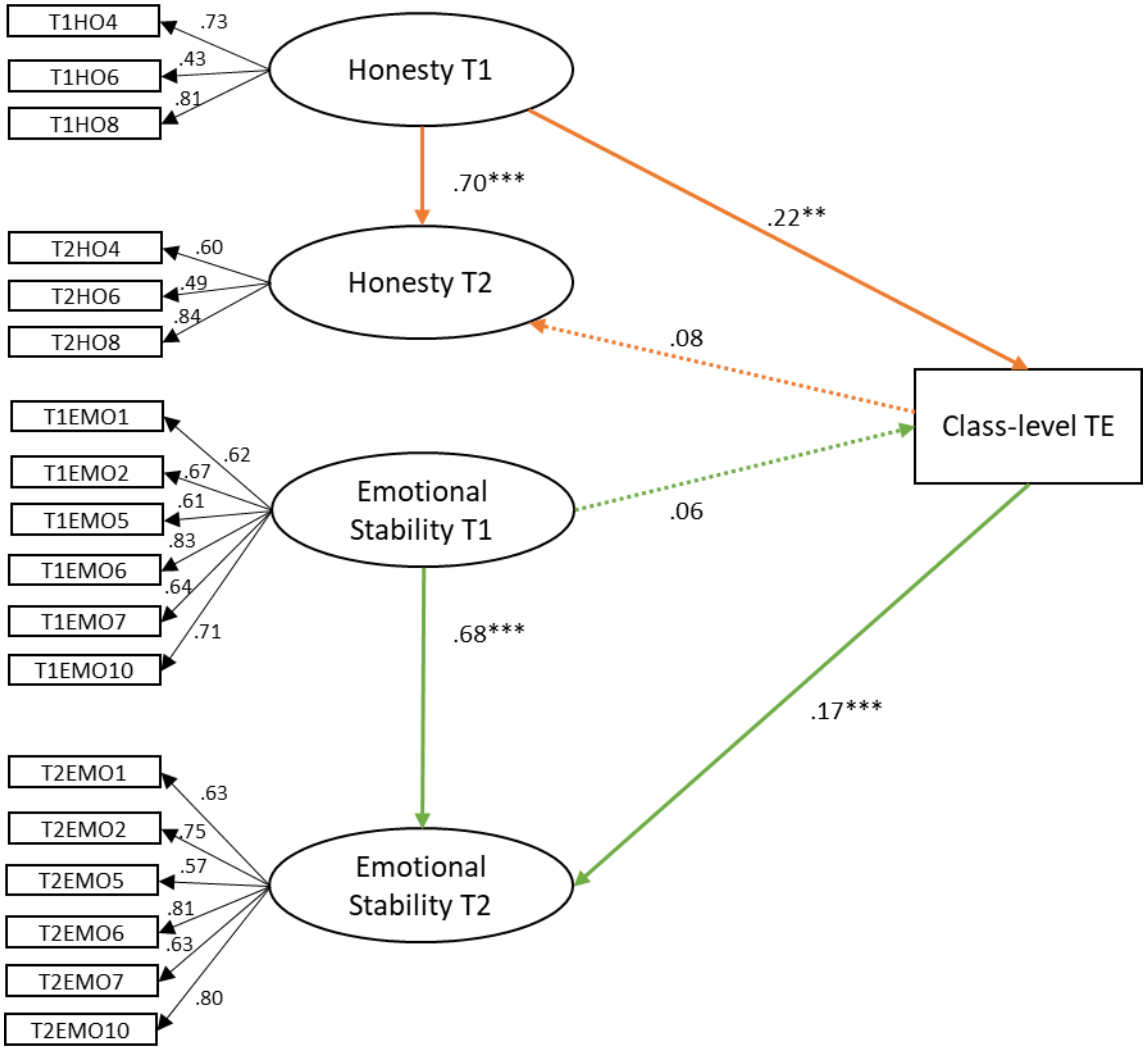
Following the CFA, the SEM technique was employed to build the empirical models for this study. Models on how TE are related to student academic and nonacademic SC were explored separately and will be presented under subsections below as follows: (1) the relations between TE with students' nonacademic SC at Times 1 and 2; (2) the relations between TE with students' academic SC at Times 1 and 2; and (3) the relations between TE with both students' nonacademic and academic SC at Times 1 and 2. As a measure of effect size, Cohen's (1988) conventional guidelines for determining the strength of relations between two variables (i.e., 0.1 for "small" or "weak," 0.3 for "medium" or "moderate," and 0.5 for "large" or "strong") were used when interpreting the strength of the standardised regression coefficient paths found in this study (Nakagawa & Cuthill, 2007).

Relations Between TE and Nonacademic Student SC. A structural equation model in which all paths from 1) nonacademic SC (Time 1) to TE, and 2) TE to the nonacademic SC (Time 2) were tested. Figure 5.4 is a diagram indicating the standardised regression weights for each path between the student nonacademic SC variables and TE. The fit indices indicated that the model met acceptable thresholds ($\chi 2 /(df)$ = 2.331, p > .311; TLI = .905; CFI = .920; SRMR = .0560; RMSEA = .062).

The model showed that TE were positively predicted by student initial SC of Honesty (β = .22, p < .01). That is, when students had higher SC of their Honesty, their HT had correspondingly higher levels of TE. More importantly, a statistically significant path was found from TE to student SC of Emotional Stability measured at Time 2 (β = .17, p < .001), which means that, controlling for baseline SC, higher TE might help students develop higher SC of their emotional stability. The size of the standardised beta values reported indicated that TE were a weak-to-moderate predictor of student SC of Emotional Stability.

Figure 5.4

Structural Equation Model Predicting Paths Between Nonacademic SC Variables and TE



Note. ***p < .001, **p < .01, *p < .05.

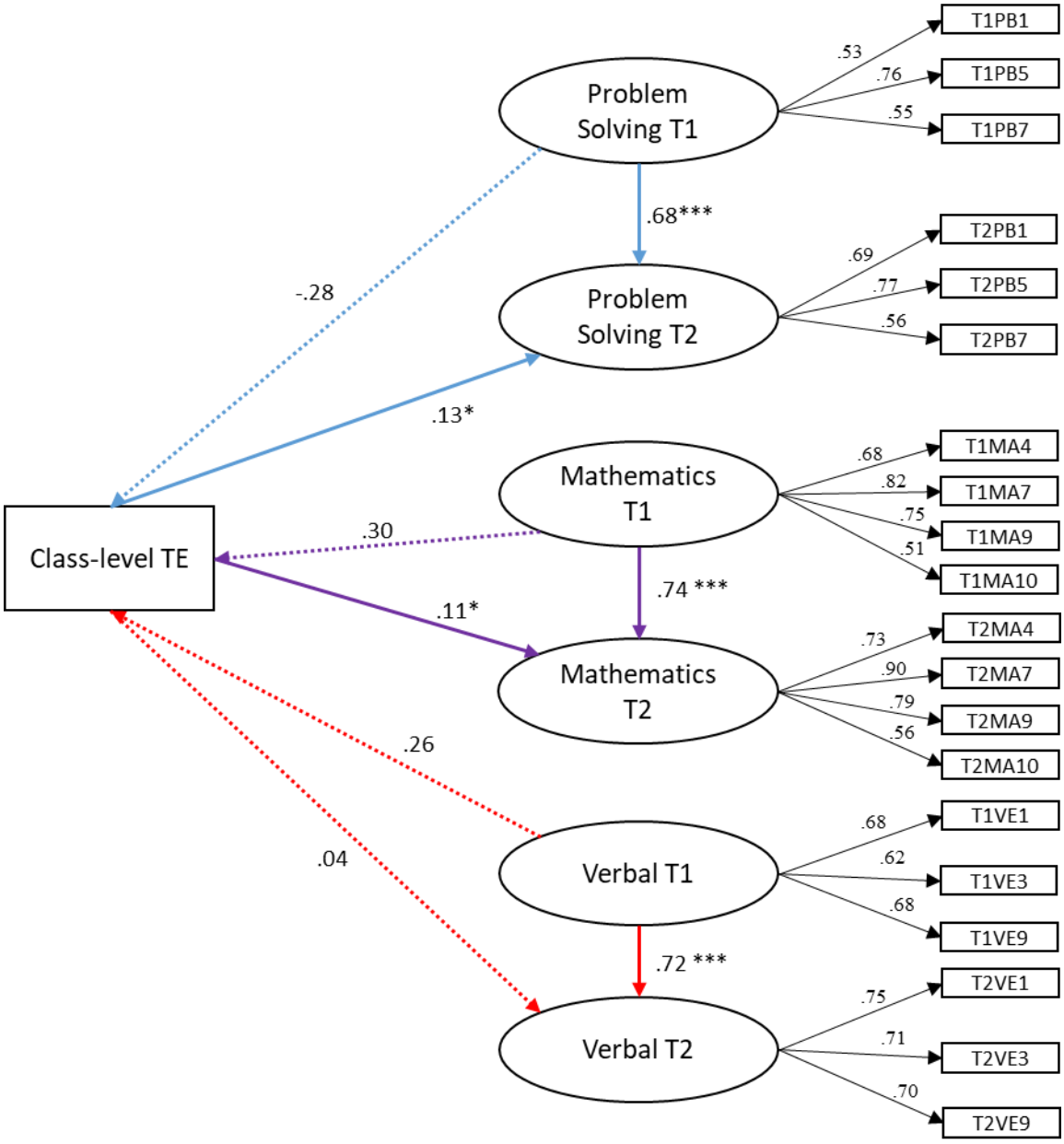
Relations Between TE and Academic Student SC. Similarly, a structural equation model in which all paths from 1) academic SC (Time 1) to TE, and 2) TE to the academic SC (Time 2) were tested. Figure 5.5 is a diagram indicating the standardised regression weights for each path between the student academic SC variables and TE. The fit indices indicated that the model met acceptable thresholds ($\chi 2 /(df)$ = 2.151, p > .341; TLI = .907; CFI = .923; SRMR = .0547; RMSEA = .058).

The paths between TE and student SC of Verbal Ability at Times 1 and 2 were both not statistically significant. However, statistically significant paths were found from TE to student Problem-Solving SC and Mathematics SC measured at Time 2. The results showed that, controlling for baseline SC, higher levels of TE predicted higher levels of Problem-

Solving SC (β = .13, p < .05) and Mathematics SC (β = .11, p < .05). The size of the standardised beta values reported indicated that TE were a weak-positive predictor of student academic SC of their problem-solving ability and mathematics ability.

Figure 5.5

Structural Equation Model Predicting Paths Between Academic SC Variables and TE



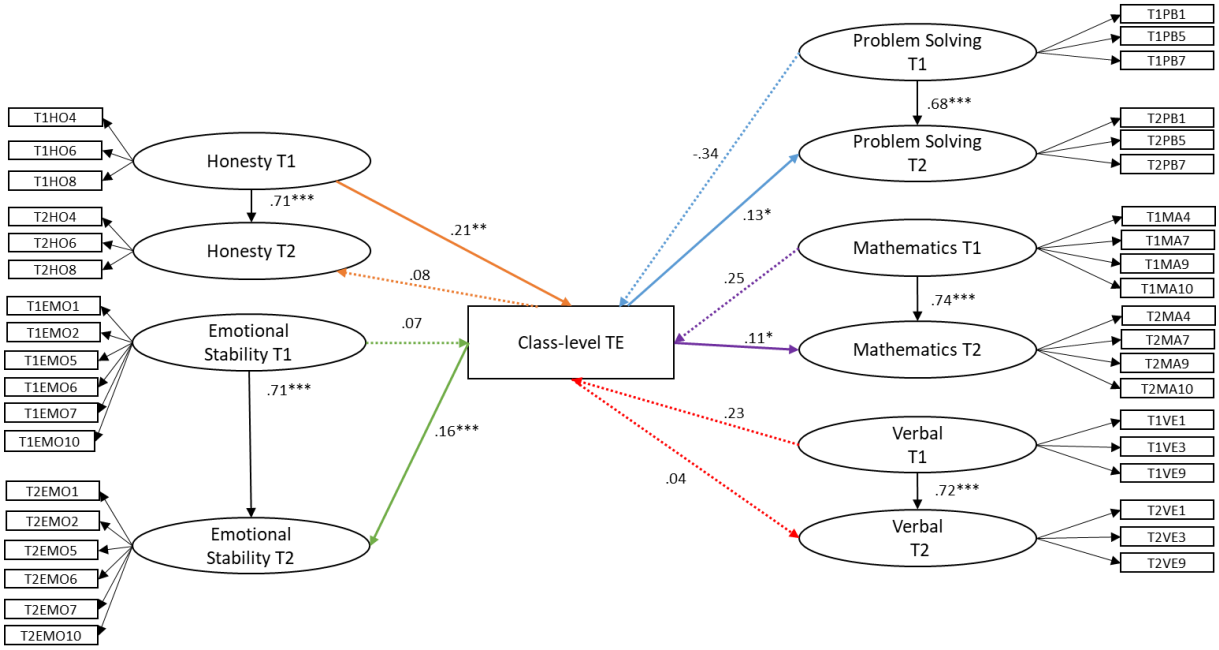
Note. ***p < .001, **p < .01, *p < .05.

Relations Between TE and Student Academic and Nonacademic SC. Figure 5.6 shows a diagram of the empirical model built in this study, with fit indices indicating that the model met acceptable thresholds ($\chi 2$ /(df) = 1.809, p > .404; TLI = .889; CFI = .900; SRMR = .0567; RMSEA = .048).

As shown in Figure 5.6, regarding student SC at Time 1, only the path between TE and student initial SC of Honesty was statistically significant (β = .21, p < .01). More importantly, the paths from TE to student SC (Time 2) of Emotional Stability (β = .16, p < .001), Problem-Solving Ability (β = .13, p < .05), and Mathematics (β = .11, p < .05) were found to be statistically significantly positive. The positive paths between TE and student SC at Time 2 meant that, controlling for baseline SC, higher TE predicted higher student SC of Emotional Stability, Problem-Solving Ability, and Mathematics; or lower TE predicted lower student SC of these variables.

Figure 5.6

Structural Equation Model Predicting Paths Between Both Academic and Nonacademic SC Variables and TE



Note. ***p < .001, **p < .01, *p < .05.

In sum, the results from the CFAs and SEMs above showed that 1) TE positively predicted student SC (Time 2) of Emotional Stability, Problem-Solving Ability, and Mathematics; 2) TE were not statistically significantly related to student SC (Time 2) of Honesty and Verbal Ability; and 3) all variables of Time 1 student SC (except for Honesty) were not statistically significantly related to TE.

5.3 Discussion

This study explored the relations between TE and student SC which involved two dimensions: nonacademic SC (Honesty/Truthfulness and Emotional Stability) and academic

SC (Problem Solving/Creativity, Mathematics, and Verbal), controlling for beginning-year student SC. Three statistically significant relations were found between TE and SC (Emotional Stability, Problem-Solving Ability/Creativity, and Mathematics) at the end of one academic year (addressing Research Question 1). In other words, the result indicated that students in the classes of HTs with higher TE were more likely to develop higher levels of SC of these three factors in a timeframe of 10 months. However, no statistically significant relations were found between TE and student SC of Honesty and Verbal Ability at the end of the year. This led to the second research question concerning the mixed patterns of the relations between TE and different facets of SC. In the following sections, each of these variances will be discussed with respect to the TE effects, domain-specific differences, and cultural background.

5.3.1 The Statistically Significant and Positive Relations of TE with Student SC

The first research question concerned whether there were any relations between TE and student SC. It was expected that higher TE would manifest in the development of higher levels of SC (S. Wang et al., 2018). The current longitudinal investigation partly supported this theoretical assumption and previous TE findings, by showing that all paths from TE to Time 2 SC were positive, though two of them were insignificant (TE with Honesty SC and Verbal SC respectively). The statistically significant and positive relations between TE and three kinds of SC (Emotional Stability, Problem-Solving Ability, and Mathematics Ability) could be understood in relation to the TE effect also known as the Pygmalion effect. Numerous earlier studies (e.g., Rubie-Davies, Peterson, et al., 2015) have shown that teachers communicated their TE to students in many ways that influenced students' motivational characteristics, including their SC (Upadyaya & Eccles, 2015). These are, among others: more frequently praising students, embracing students' ideas, having eye contact with their students, and smiling more at them (Brophy, 1983). Through these behaviours, HiExTs' beliefs that all students could achieve at higher levels could be transmitted and projected into students' own perceptions of their ability and further promote their confidence and interest in a specific field. According to our results, this seemed to be the case because the models showed that student SC at Time 2 increased as TE increased.

Furthermore, Rubie-Davies (2007, 2014) found that HiExTs tended to scaffold their students with high-level challenging learning tasks and set clear learning goals so that students knew what skills they had already learned and what to learn next. These kinds of active learning experiences have been found to be positively related to students' academic SC

(K. M. Cooper et al., 2018). At the same time, studies have also suggested that students might participate more in the class activities to satisfy their teachers' expectations (Schnitzler et al., 2021). In other words, higher TE might predict improved student engagement (e.g., hand-raising) which has been reported to be positively related to student academic SC and their achievement (Schnitzler et al., 2021).

Going further, in addition to subject teaching, HiExTs have been reported as being more likely to create a warm and supportive class atmosphere, which contributes to a positive and caring relationship between students and teachers (Rubie-Davies & Peterson, 2011). In the current study, the more secure students felt about their abilities and their interpersonal relationships, the more possible it was that they displayed a higher level of SC as emotionally stable later on. At the same time, studies (e.g., Urhahne et al., 2011) have also suggested that even underestimated students could perform as well as overestimated students, but the former showed lower expectations for success and lower academic SC; instead, they experienced higher levels of test anxiety. This finding could partly explain the relations between TE with Emotional Stability SC and also two academic SC observed in the current study. This effect is illustrative when it comes to the context of HTs, where HTs are the ones who spend the longest time with their students in schooling and are responsible for all fields of students' development (including their mental health). Inconsistent with Y.-H. Chen et al. (2011), a study conducted with Taiwanese elementary school children and their HTs, the current study showed statistically significant and positive relations between TE and one nonacademic SC. The different results might be partly caused from the research designs where Y.-H. Chen et al. explored individual-level TE and general nonacademic SC whereas the current study measured class-level TE and domain-specific SC variables. The findings that emerged from the current study could also be due to the fact that this study was conducted in high schools (the educational stage emphasising academic achievement and peer competition; H. Li, 2017). As suggested by Good and Lavigne (2017), highlighting both achievement and competition can be key factors for stronger TE effects.

In addition to the TE effect discussed above, another key area worth mentioning is the positive associations observed between TE and student achievement (S. Wang et al., 2018), which could in turn predict individual SC. As indicated by Z. Li and Rubie-Davies (2017), TE positively predicted student academic outcomes after 1 school year. Therefore, the higher SC at the end of the academic year might be partly attributed to the increased student achievement predicted by the higher TE (higher TE → increased academic achievement → higher SC). Thus, a question remains here that although TE holds potential to explain

students' enhanced SC, it does not explain whether it is the TE itself that contributes to this pattern or the corresponding improved achievement playing a key role instead.

Finally, this study contributes to current literature by showing that the Pygmalion effect exists not only among primary school students, but also in high school contexts. At the same time, the effect sizes of this phenomenon (β = .16 in the Emotional Stability SC, β = .13 in the Problem-Solving Ability SC, and β = .11 in the Mathematics SC) are comparable with what have been found among younger children in some of the previous research (effect sizes of 0.10–0.20; see, e.g., Gentrup et al., 2020). In this regard, this study went against the hypothesis that high school students are more resistant to biased TE than their counterparts in lower year levels (e.g., Y.-H. Chen et al., 2011; Jussim, 2012). The associations found in this study could be largely due to the context of Chinese HT in this research—the teacher who has the most intensive interactions with students in their daily school life and thus might have greater influence. Despite all this, a stronger predictor of student end-of-year SC than TE was beginning-year SC. This is probably unsurprising; nevertheless, it has been evidenced that TE can nudge the trajectory of student SC (Ding & Rubie-Davies, 2019). Additionally, the modest (yet still robust) effect size could be largely due to the short time period of one school year (10 months) covered in this empirical research. However, it seems necessary to consider that TE effects could accumulate and become stronger over longer periods (Rubie-Davies et al., 2014). Combining previous findings with that of this study, it could be argued that over and above student baseline SC, higher levels of TE can positively predict high student SC over time.

5.3.2 Variance in the Relations Between TE and Student SC

The second research question concerned whether there were any differences in the relations between TE and specific facets of SC. Based on previous findings in the field of TE effects, a mixture of patterns was anticipated in which most SC dimensions were predicted by TE despite the possibility that they might develop in inconsistent ways with higher or lower values on one dimension than on others. According to the model in this study, mixed patterns were observed with class-level TE of HTs predicting some, but not all, aspects of student SC. As discussed below, the underlying reasons related to two insignificant relations (TE with Honesty SC and Verbal Ability SC) could be understood against the formation of the SC, the domain-specific differences, and the contextual factors.

As one nonacademic SC, Honesty SC at Time 2 showed no statistically significant relation with TE. This result could be interpreted in two ways: 1) considering the baseline

Honesty SC was fairly high among all three TE groups (*Mean* = 5.28), there may be a ceiling effect where it would be difficult for Honesty SC to get even higher; or 2) students of HTs with different TE levels did differ in their cheating behaviours but these behaviours did not threaten students' SC as honest (e.g., students in the lower TE classes might have cheated more but thought it was acceptable). As shown in the literature, one of the key processes of maintaining SC is "categorisation of actions" (Mazar et al., 2008, p. 22), in which individuals regularly reframe the actions that violate social norms as acceptable. For example, some students might categorise looking at another student's answers as a form of cooperation or group work. As such, the cheating behaviour could be perceived as something endorsed by teachers instead of something dishonest. Similarly, when it comes to copying homework, an especially common form of dishonesty (McCabe et al., 2012), students who think that homework is unimportant and low-stakes might not take this cheating behaviour as seriously wrong (Rettinger, 2017). In this regard, despite the differences in cheating behaviours, in reality, there would be no salient variance reported in the level of student's Honesty SC. Therefore, it will be important for future research to explore 1) whether there are any relations between TE and students' actual cheating behaviours, as opposed to self-reported SC; and 2) whether there are any differences in the process of forming Honesty SC (especially the categorisation of actions) of students with teachers having different levels of TE.

The mixed pattern was also shown in the field of academic SC, where TE was directly related to student perceptions of their Mathematics and Problem-Solving Ability/Creativity but not student SC in Verbal Ability. This finding is interesting given some previous studies have shown direct associations between student Reading SC and class-level TE (Rubie-Davies, 2006). Again, there could also be a ceiling effect for Verbal SC in this project (*Mean* = 4.66). At the same time, another possible explanation for the insignificant relation between TE and Verbal Ability SC could be understood in relation to the mathematics preferences in the context of Chinese high schools. As suggested by earlier studies (S.-K. Chen et al., 2013; Dai, 2002), Chinese students, teachers, and parents usually value mathematics above other subjects, therefore, the feedback that students receive regarding their mathematics performance could be more salient compared to the performance in language. In this vein, there might be fewer possibilities for Chinese students' Verbal SC to be malleable at high school compared with their SC of mathematics and problem-solving ability. Thus, the role of contextual factors might explain the inconsistent findings of this study and that of previous research. This is a message worth listening to when exploring the TE effect in the Asian

context that the impact of other factors, such as subject preferences and parents' involvement, should be considered.

Generally, this study supports the idea that HTs' class-level TE can become a self-fulfilling prophecy for student SC. Thus, it is important for teachers to be aware of the significance of having high TE for the development of all their students, which is not only in relation to students' academic SC but also in terms of their psychological well-being. Following the detailed consideration of the reasons underlying the diverse patterns found in this study, more complicated culture-related and domain-specific drivers should be taken into account to explain student SC. Further studies might elaborate on this topic and explore several potential causes together to explain why students SC is related to TE in specific ways.

5.4 Limitations

Even though this study addressed many gaps in the literature on SC and TE, caution should be exercised for some methodological issues when interpreting the findings. First, the research was correlational rather than experimental, which means that causal claims cannot be made. The findings highlighted that class-level TE of high school HTs was indeed a positive predictor of later student SC. However, other mechanisms cannot be ruled out through which TE predicted SC across multiple processes of forming or maintaining SC over time. For example, it might be that students benefitted from the advanced academic activities designed by their HiExTs, which improved their academic performance and then, in turn, boosted their respective SC. Thus, the observed relations in this study need to be further investigated to fully explain how these relations work. Nevertheless, in controlling for prior levels of SC, this research was able to show that the relations between TE and SC went beyond individual differences in students' previous SC.

The second, and perhaps more worrisome, limitation of the study was that there was a relatively high level of dropout from the research (134 students, 27.8%). This could be largely due to the longitudinal design and the practical constraints (the whole research was conducted remotely due to COVID-19). Totally relying on an online survey could have compromised the response rate, because as indicated by Baruch and Holtom (2008), the average response rate for in-person surveys (62.4%, *SD* = 16.9) is higher than that for online ones (38.9%, *SD* = 15.1). Thus, for future investigations, it is suggested to use both in-person and online surveys to overcome this limitation. However, despite this reduction in participants in this study, the sample size was still comparable to the sufficient sample size recommended for SEMs (Comrey & Lee, 2013). Furthermore, additional analyses suggested

that the students who dropped out halfway did not significantly differ from the remaining students regarding either academic SC or nonacademic SC.

Another limitation is related to the hierarchical data structure in this study where students were clustered in teachers. As explained previously, multilevel modelling was not used in the current study due to the small sample size in each class, and so any possible conclusions must be tentative. Future research with larger numbers of students in each class would enable multilevel modelling techniques and could lend further weight to the current study. Similarly, potentially confounding variables (e.g., students' socioeconomic status) could be identified and measured with a larger sample of teachers and students.

Finally, only self-reported measures were used in this study. There might be inconsistencies between the actual level of SC and what the student reported. For example, reporting on how honest one feels about oneself may cause students to answer the question in a socially desirable way. The lack of a follow-up qualitative design to explore the observed relations means that possible reasons to explain the findings can only be speculated upon. Therefore, in future explorations, it is recommended that researchers have a follow-up qualitative design to investigate and explain the patterns and results that emerged from the models.

5.5 Implications for Future Research and Practice

As well documented throughout the education literature, individual SC is significant in students' development, including their academic performance (Szumski & Karwowski, 2019) and mental health (Xu et al., 2019). The results of this study extended existing findings on the relations of TE to SC by showing the positive relations of class-level TE with student SC in the context of Chinese high school HTs. Despite general agreement on the predictive role of TE in student SC, there are inconsistencies in how TE has been shown to be related to specific domains (for a review, see S. Wang et al., 2018). This seems to be the case in the current study because different patterns from some of the previous findings were also revealed. The differences between this research and previous explorations might be caused by contextual characteristics, such as the year levels of students, the particular kinds of teachers investigated, and cultural differences. As such, it is important for future research to compare how TE effects work in different contexts. Further examination of these results would be highly useful and might provide insight into how an intervention tool could be designed to leverage TE and improve student SC in different contexts.

In addition to the attention to academic SC, an increasing number of studies have started to point toward the importance of nonacademic SC by showing its positive relations with academic SC and academic achievement (e.g., Ogle et al., 2016). The current study contributed to this field by illuminating the significance of TE in relation to student Emotional Stability SC. Nevertheless, the findings that emerged from this study should be interpreted with the particularity of high school HTs who take care of students' overall development, including their emotions and mental health. However, the results signify the possibility that students' nonacademic SC could be improved within a supportive, caring, and high-TE framework. As suggested by Flaherty (2020), student emotions are underresearched regarding their dimensions, antecedents, and functions in various academic settings. Current interventions commonly attend to alleviating student negative emotions, such as their test anxiety, rather than the ways that positive emotions can be enhanced (Flaherty, 2020). Therefore, this study has practical implications for interventions on student emotions, as opposed to the current priority on the enhancement of skills and performance on examinations (Usher, 2015).

Furthermore, potential avenues not evaluated in this study are the roles of subject teachers, parents, peers, or students themselves in both the formation of student SC and in TE effects over time. For example, parents' involvement might mediate the construction of student SC (Silinskas & Kikas, 2019), especially given that home-based types of involvement are relatively intensive in East Asian contexts (S. W. Kim, 2020). Thus, trying to understand what parents may be doing in the home environment to foster students' ability as well as their perceptions about children's competence are important areas to explore. Additionally, only academic TE were measured in this study, it is worth exploring how teachers' (especially HTs) nonacademic expectations of their students mediate student SC. Future research on the mediating role of these factors is required to fully untangle the mechanisms of TE effects on student SC.

Finally, although strong causal statements are unwarranted considering the current research design, there are indeed plausible reasons to believe that TE and specific behaviours play a role in students' SC, at least to some extent. However, the researcher did not wish to oversimplify the mechanisms by which TE influenced SC, rather, she encourages future studies to explore relevant factors further to investigate the complexity of why an individual student might feel confident, interested, and would seek to learn more. Bearing in mind that beliefs do not exist in isolation, it will be important for future research to focus on beliefs more broadly. Tracking various variables (e.g., motivations) together using additional time

points will help to reinforce and to better understand the associations identified here. These investigations will also help researchers to understand when and how to best leverage these relations within a high-expectation framework.

5.6 Conclusion

The present research investigated the relations of SC (both academic and nonacademic) with class-level TE. This study contributed to the nascent stream of explorations of Chinese high school HTs' TE relate to their students' SC. The structural equation models illuminated that some of both academic SC (namely, Problem-Solving Ability SC and Mathematics SC) and nonacademic SC (Emotional Stability SC) were malleable and could be positively predicted by TE. The findings emphasised the important role of TE in the development of student SC. This study contributed to the bridge between psychologically oriented studies in terms of student beliefs and class-level TE. The association of these two research strands also shed light on the design of further interventions which aim to improve student SC within a TE framework.

Chapter 6: General Discussion

The research in this thesis has explored the role of class-level TE in teacher emotions and student SC in the context of Chinese high school HTs. A major claim has been that the TE were significantly associated with teacher emotions and positively predicted some facets of their students' SC outcomes. At the same time, the patterns between TE and teacher emotions were explored and explained in more depth through individual interviews. Teachers with different levels of TE seemed to vary in their role identification and their capacity for resilience in their practices.

This final chapter aims to draw together the main findings from all three studies of this thesis and describe and discuss why and how this doctoral project provides significant contributions and insights into the fields of teacher and student beliefs. In doing so, this thesis builds and expands on the theoretical and empirical work cited in previous chapters. As shown below, the first section of this chapter will provide a brief revisit of the findings from all three studies, followed by a general discussion of the overall findings. The third and fourth sections will demonstrate the theoretical and educational implications of these findings. The limitations of this doctoral project will then be presented in the fifth section, followed by concluding thoughts.

6.1 Overall Summary of the Key Findings

As the initial step of the project, the first quantitative study (Chapter 3) measured the TE and emotions of HT participants and then examined the associations between these two factors, both of which are documented as significant in influencing teaching practices and students' outcomes (Frenzel, 2014; Rubie-Davies, 2017). The SEM showed that 1) TE positively predicted pleasant emotions of joy, pride, and love; and 2) TE negatively predicted negative emotions of anger, fatigue, hopelessness, and anxiety. In other words, the findings indicated that teachers' positive emotional experiences were related to higher levels of TE. As detailed in the discussion section of Chapter 2, this study meaningfully contributed to the scant base of knowledge on the interplay of these two factors in the teaching profession.

Further, based on the results regarding the TE group and associations between TE and their emotions found in Study 1, the second study (Chapter 4) drew upon individual interviews to establish understanding of the interplay of these two factors in depth. The interview results indicated that, compared to LoExTs, HiExTs appeared to highlight the student role instead of their own in education and suggested a more advanced capacity in

their emotional strategies, teaching approaches, and their use of contextual resources. These differences could partly explain the emerging patterns of TE and teacher emotions from Study 1, where a higher level of TE predicts a higher level of positive emotions and a lower level of negative emotions. Additionally, the findings from Studies 1 and 2 have practical implications which suggest teacher emotions might be improved by training teachers to behave in alignment with high-expectation principles (Rubie-Davies, Stephens, & Watson, 2015).

Finally, the last study (Chapter 5) in this thesis mapped out how student nonacademic SC (Honesty/Truthfulness and Emotional Stability) and academic SC (Problem Solving, Mathematics, and Verbal) appeared to alter according to the TE of their HTs. Controlling for beginning-year student SC, TE were found to be statistically significantly related to three facets of student SC (Emotional Stability, Problem-Solving Ability, and Mathematics) at the end of the academic year. In this regard, students in the classes of HTs with higher TE were likely to form higher levels of SC of these three factors over the 10 months from the first to the second measurement. However, no statistically significant relations were found between TE and student SC of Honesty and Verbal Ability. As discussed in Chapter 5, each of these variances should be understood in light of contextual considerations such as domain-specific differences and cultural background.

6.2 Overall Discussions of the Key Findings

Two themes emerged from interpretations and reflections on the key findings of the whole project: (1) the promising yet intricate nexus of TE, teacher emotions, and student SC; and (2) contextual interpretations under the umbrella of the TE framework. As shown in the following sections, the first theme concerns the overall picture from the current project where the significance of TE in teaching and learning was highlighted but variations and complexities were also captured. Furthermore, as shown in the discussion sections of the previous chapters, despite numerous consistencies between the present findings with TE theories, inconsistency and uniqueness also emerged from each study. Therefore, the second theme relates to the contextual considerations within the overall TE framework in which the particularity of Chinese HTs and the sociocultural background will be discussed. Together, this section discusses the findings across all three studies in a general way to portray the TE effects in the current context. It shows what is specific and unique to the Chinese high school, and specifically to HTs. The discussion will also show how findings from this project

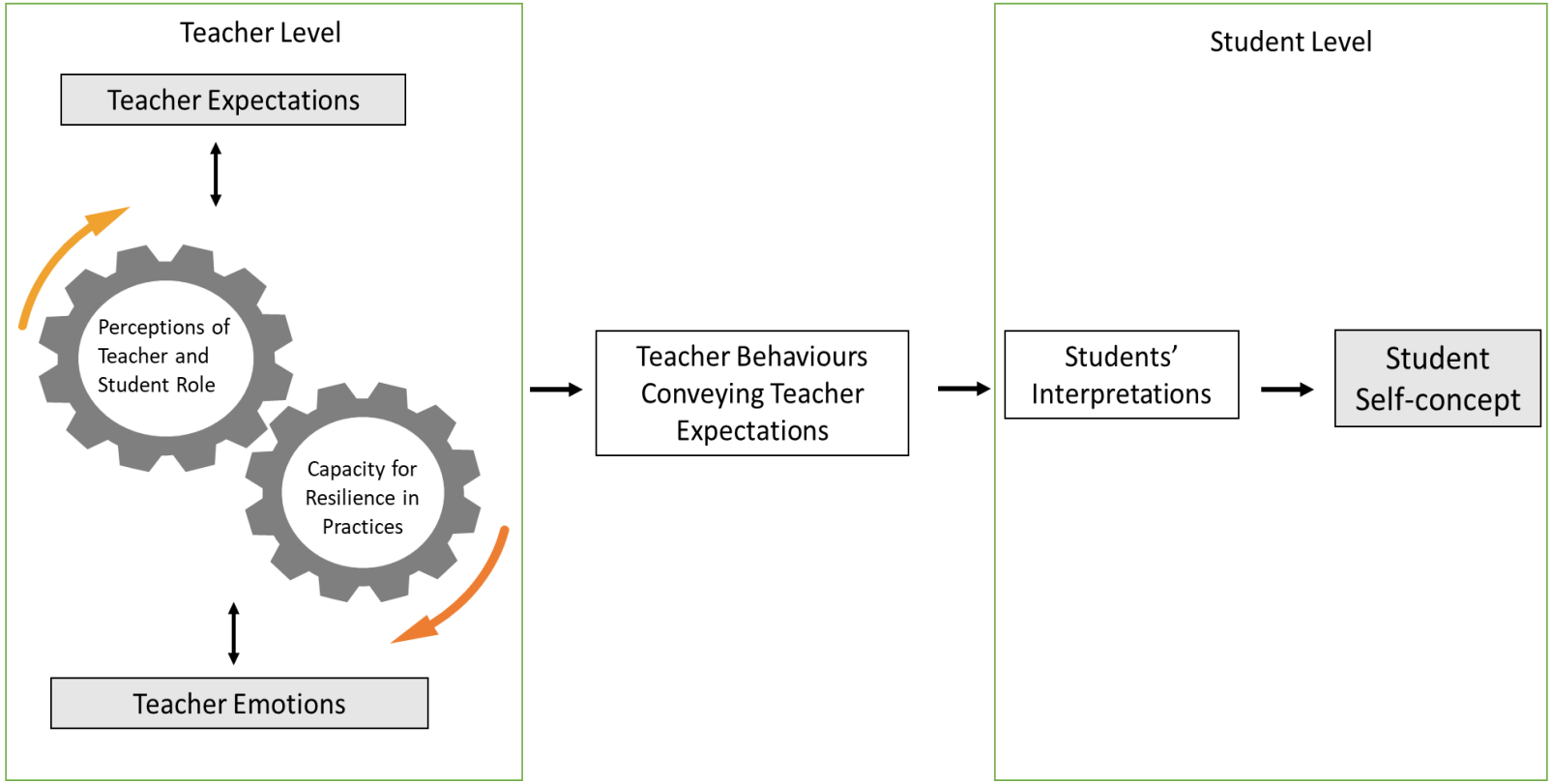
contribute to the existing literature and how they could be used as a leverage in future interventions and in modifying daily HT practices.

6.2.1 Promising-Yet-Intricate Nexus

The findings from this project integrated and complemented that of previous literature and the TE framework by incorporating TE, teacher emotions, and student SC into one investigation. As detailed in Chapters 3 to 5, there is considerable alignment between the current findings and the existing literature. To illustrate the combined findings of all three studies in a clearer way, a schematic model (Figure 6.1) was developed based on both the results of this project and the existing framework presented in the second chapter. As shown in the model, this research complemented and extended existing literature by exploring TE effects at both the teacher level (left part of the model) and the student level (right part of the model). In terms of teachers, associations between TE and their emotions were found, which appeared to be mediated by teachers' role identifications and their capacity for resilience in their practices. The integration of TE and teacher emotions may have been reflected in teachers' behaviours, resulting in different teaching practices and teacher–student interactions. As shown in the literature, students are able to perceive TE through the nuance of teachers' behaviours (Babad & Taylor, 1992). Therefore, at the student level, their learning outcomes (SC explored in this research) could be associated with their teachers' beliefs and emotions. Overall, the model showed that the TE effects not only existed in student development but could also relate to teachers' own emotions and work as an integral part of teaching and learning. The model is discussed in detail in the following sections. As elaborated below, the overall results of this research either supported or extended existing findings on TE effects by showing differential associations of TE with teacher emotions and student SC.

Figure 6.1

The Role of Teacher Expectations in Teaching and Student Outcomes



Note. Three factors in grey shadow are the ones explored in this thesis.

One overarching goal achieved in Studies 1 and 2, as shown in the left part of Figure 6.1, was to do with bringing together two psychological variables (TE and teacher emotions) that are not often explored within the same context in the literature. Specifically, although a large body of literature recognises the role of TE in student development (S. Wang et al., 2018), less is known about how TE might be related to the emotional experiences of the teachers themselves. Studies 1 and 2 contribute to the existing literature by showing why and how teachers' positive emotions might be enhanced and, conversely, how their negative emotions might be alleviated to a certain degree, as TE of a given class increased. Findings from these two studies are important as they suggested that TE might be a function of how teachers experience their profession. In other words, TE could be perceived as one of the keys to understanding teacher emotions or even work as a leverage to improve their emotional experiences. As will be discussed later in Section 6.4 (Practical Implications), the findings on the relations of TE and teacher emotions highlighted the importance of incorporating a TE framework into professional development because it could work as a way to prevent teacher burnout and reduce teacher shortages. This is especially important given the higher occupational strain and stress HTs encounter, as reported in the literature (Baeriswyl et al., 2021), and the lack of research exploring these two factors together in psychological research. The theoretical and practical contributions will be elaborated further in the following sections.

When moving TE effects beyond teachers to students, as shown in the right part in the model (Figure 6.1), this project resonated with extant findings that TE could positively predict the development of student SC (e.g., Rubie-Davies et al., 2020). Regardless of the complexity in the relations presented and discussed within Study 3, the overall pattern confirmed the significance of TE in the development of high school students' SC, as has been found for their younger counterparts. As presented in the model, how TE are translated in reality and then predict student outcomes should be understood in relation to TE theories that students are able to perceive TE from interpreting differential teacher behaviours (Babad & Taylor, 1992), which may in turn mediate students' sociopsychological factors such as SC (Rubie-Davies et al., 2020) and self-efficacy (Karwowski et al., 2015). As a whole, the findings from the current project emphasised the significant role of TE in the development of both teachers and students. The emerging findings from all three studies echoed and complemented the theoretical framework proposed by other researchers in the literature review (Section 2.2). For example, Studies 1 and 2 contributed to the findings on the relation between teacher beliefs and emotions where the reciprocal relations have been found earlier

between self-efficacy (one construct of teacher belief) and their emotions (Burić et al., 2020).

However, despite the promising patterns discussed above, the findings from the current research also portrayed a complex web of interactions between TE, teacher emotions, and student SC, indicating an intricate mechanism standing behind the overall TE-effect framework. The emerging interrelations of TE and teacher emotions from the current studies suggested that teacher emotions were not simply influenced by met and unmet expectations. Instead, emotions and TE mutually influenced each other in a complicated way that took place in between daily teacher–student, teacher–parent, and teacher–teacher interactions. For example, how HTs interpreted their students' misbehaviours (e.g., a kind of provocation or a lack of security) appeared to orient some of the pedagogies that took place during these events. In other words, TE and the way they were interpreted or manifested in class played a critical role in their transition to teacher emotions. Nevertheless, although Studies 1 and 2 shed some light on this topic, the real mechanisms could be much more intricate than what has been found in this research. As mentioned earlier, the relations between TE and teacher emotions have been underexplored in the literature, which means that possible reasons to explain the current findings could only be speculated upon with reference to emotional theories (e.g., Scherer, 2009) and TE theories (e.g., Rubie-Davies, 2014), respectively, and associations found between teacher emotions and other teacher beliefs (e.g., self-efficacy; Burić et al., 2020).

Furthermore, a mixed pattern was also observed in the relations between TE and student SC. Study 3 showed the differences in the associations between TE with different components of SC, which draws attention to the many facets of student SC. In this regard, student SC should be considered as heterogeneous and multidimensional and its relations with other factors should be interpreted with caution. In addition, the results of Study 3 also showed inconsistencies with those of other research in different contexts, which highlighted that TE effects are likely to vary across contexts and/or individuals. Hence, although the model proposed in Figure 6.1 provides a concise way to understand the findings of the whole project, the mechanism behind the model should never be oversimplified. This study has only begun to unravel some of the complexities of these associations during some specific processes of the whole TE effects framework. Only by understanding the interrelations of all fields of TE effects and the perspectives of all involved is it possible to comprehend this unique process.

6.2.2 Contextual Interpretations

The current project explored three psychological variables (namely, TE, teacher emotions, and student SC) within the context of Chinese HTs, the group that has been neglected in previous TE literature. Given that all three factors are embedded in the context, the results should be interpreted with regard to the contextual factors, such as Chinese sociocultural (e.g., Confucianism, Communism, collectivism) and institutional (e.g., examination-oriented education) contexts. This is especially important considering the misalignments found in the results of this research from that of other contexts. Therefore, this section discusses the findings with the contextual considerations to show what is specific and unique to Chinese HTs and the educational climate.

TE and Chinese Approaches to Teaching. Influenced by the Confucianism tradition, the common teaching beliefs among Chinese teachers involve ideas such as "failure is the result of students' laziness" and "children are spoiled if praised" (Yin & Lee, 2012), which was also mentioned in some interviews in this project (Study 2). Following these views, Chinese teachers tend to suppress their spontaneity (Z. Wu & Chen, 2018) and behave in a neutral or stern way to maintain their authority in class (Yin, 2016). Most of these approaches seem to imply a harsh and oppressive emotional environment, which runs counter to high-expectation principles in the literature. However, despite repeated criticisms of the oppressive and unidirectional teaching approaches in China (H. Li & Du, 2013), the teacher–student interaction is not as detrimental as has been alleged by some Western theories (Yin & Lee, 2012). Instead, the teacher–student relationship is usually harmonious and close, which is typically marked by teachers' strong sense of responsibility and a caring climate (Yin, 2016).

Nevertheless, the particularity of teaching approaches (e.g., neutral) embedded in Confucianism does not mean that Chinese teachers are more resistant to biased TE or that it is less likely for them to communicate their expectations to their students. Instead, this doctoral project has not only uncovered Chinese HTs who do have differing TE (Study 1), but also explored how these TE then appear to translate into their practices (Study 2), which in turn predicted student SC outcomes (Study 3). The findings on the communication of TE in this research are critical because they suggested that, even in a more emotionally reserved culture where people tend to hide their feelings (Yin & Lee, 2012), HTs do develop biased TE and manage to convey their TE to students during their daily interactions. However, as reflected in the interview data in Study 2, it could be argued that the behaviours conveying TE in the Chinese context might be slightly different from what have been found in Western contexts.

For example, regardless of TE levels, HT participants appeared to be more inclined to praise their students when they had made significant progress in tests, instead of making frequent and direct compliments to them in their daily interactions (Study 2). Additionally, HT participants rarely mentioned grouping students in class (which is one important instructional strategy in the TE framework), which could be partly due to the large class size in Chinese high schools. Although how Chinese teachers communicate their TE to their students was not the focus of this research, the examples here suggested possible variance existing in TE communications in different contexts. Therefore, it would be interesting to explore further to see, compared to existing literature in Western cultures, how teachers in different cultures convey their TE and influence their students.

Furthermore, another significant component of teaching in China is "heart-consuming" labour (Yin & Lee, 2012), where teachers devote themselves to the job fully (J. Chen, 2016) and assume high levels of responsibility for student development (J. Chen, 2015). This is partly driven by the collectivist culture where teacher–student relationships resemble a familial relationship (H. Li & Du, 2013) or paternalistic leadership that combines strong authority with fatherly benevolence (X. Zheng et al., 2020). This is especially typical in the HT context where HTs tend to be perceived and portrayed as parents of their students. This paternalistic leadership, on the one hand, explains the close teacher–student relationships and teachers' profound impacts on student development (for example, the role of TE in student SC found in this project); on the other hand, it also constitutes a source of teachers' fatigue and conflicting demands on their time.

However, within the same context of "heart-consuming" labour, a different trend was observed in the interview data from HT participants in the current research. The association between TE and role identification found in Study 2 showed that HiExTs were more inclined to perceive themselves as a "sister/brother" or "listener" of their students instead of their traditional roles as parents or guardians. The disparities in role identification highlighted the interrelations between TE and other teachers' beliefs, for example, their self-perceptions. Furthermore, this discrepancy in role identification also suggested that HTs with higher expectations tended to incorporate a more equal teacher–student relationship into the traditional familial culture, which could in turn contribute to teachers' emotional experiences and their teaching practices. As suggested in the literature, in the past few decades, China has launched initiatives to encourage more student-centred teaching approaches (H. Li & Du, 2013). Thus, it is possible that the changes captured in Study 2 could be partly attributed to how today's younger generation of teachers think about their jobs differently from the

perceptions of previous generations. Despite the various potential attributions, however, it is acknowledged that being a HiExT implies the potential to balance the advantage of democratic approaches to teaching with the traditional caring components of the HTs' job. Therefore, in addition to the mediating role of TE in teacher emotions discussed in this thesis, it is exciting to see that increasing HTs' awareness of their TE might also contribute to the discourse of Chinese education changing from a "parental directing" style (L. Gao, 1998) to a combination of the traditional caring model with more student-centred approaches.

TE and the Tensions Between Academic and Nonacademic Development. Given that subject teachers in China are mainly responsible for student academic performance rather than their nonacademic development, this project focusing on HTs provided a possibility to explore how TE related to both components in the Chinese context. HTs' commitments and their differences from subject teachers have been detailed in the literature review (Chapter 2). In summary, the most salient particularities of HTs are their unparalleled close relationships with other stakeholders in schooling and their responsibility for student overall development, which suggests an excessive workload, on one hand, but also a chance to make real differences in learning outcomes, on the other hand. These particularities have also been reflected in the results of this project. Findings across all three studies identified the reciprocal relations of HTs' experiences with student overall development, especially their nonacademic outcomes. For example, the emotion questionnaire and the interview results revealed that students' misbehaviours constituted one major source of HTs' negative emotions. Similarly, the role of TE in student nonacademic SC demonstrated that HTs indeed played a critical role in students' emotional experiences.

However, as revealed in the interviews, HTs reported inadequate support or preparation for their nonacademic accountability (e.g., moral education and classroom management). Whereas teachers nowadays are starting to increasingly attend to students' well-being and overall development (Yan, 2015), it is reported in the literature that the public, including parents, have placed more attention on student academic performance (Lee & Yin, 2011), especially at the high school stage where students are required to sit a national examination to be admitted to universities (M. Li et al., 2018). However, when treating the results of the current project as a whole, it is interesting to find that these two parts (academic and nonacademic development) are likely to be complementary rather than oppositional. Specifically, data in this research showed that teachers' teaching practices, including their subject teaching in class, were influenced by student nonacademic behaviours, and vice versa. Bearing in mind that the TE measured in this project was only about students'

academic ability, its statistically significant relations with teacher emotions and student nonacademic SC could be even more thought-provoking. In other words, teachers' academic expectations of students predicted student nonacademic SC development, while student nonacademic behaviours constituted a major influence on teachers' emotions and their practices in class—a key predictor of student academic outcomes. It is hoped that this interesting finding might encourage people to stop treating these two fields entirely separately, or at least help different stakeholders to increase their awareness of the importance of both components.

TE and HTs' Dilemma. HTs' negative emotions and their vulnerability have been explored in previous literature and various sources have been found (e.g., Huang & Gove, 2015). As presented in the literature review chapter, these sources ranged from structural conditions (e.g., ambiguity in commitments) to sociocultural factors (e.g., strict public expectations). Some of these factors were confirmed in the questionnaire items in Study 1 and especially the interview data in Study 2. However, finding ways to address these concerns could be a long-term topic which is beyond the scope of this research. Instead, this project shed light on the possibility that HTs could, at least to some degree, prevent themselves from the emotional dilemma (e.g., professional vulnerability) by teaching in line with high-expectation principles. The differences observed between LoExTs and HiExTs and the possible contributors to positive emotional experiences have been carefully discussed in Study 2. Based on these findings, TE could be regarded as one kind of leverage to prevent teachers from emotional trauma. Section 6.4 will discuss how further interventions could be developed by integrating current findings. To avoid repetition, overlapping details are not described here.

Combining the results across all three studies, one message worth attending to is that a balance should be achieved between what Chinese HTs' are *expected to do* and what they *can do*. As revealed in the interview data (Study 2), one main tension resulting in LoExTs' negative emotions was the gap between high external demands or expectations from parents and teachers' relatively low beliefs in students' ability. External expectations in education have also been reported for many years in the Chinese literature (J. Chen, 2016), which suggests that Chinese parents usually have high expectations for their children's achievement and thus have a strict or sometimes unrealistic demand for teacher responsibility (Y. Wang et al., 2015). This phenomenon has been intensified in the one-child generation (Fong, 2004) which was the student sample explored in the current project. The need to interact and cooperate with parents is particularly relevant for HTs because they are the ones who keep

parents continuously informed and work as a bridge between different stakeholders in schooling, which applies to both subject-specific and interdisciplinary issues (Baeriswyl et al., 2021). However, it is important to distinguish the external expectations, from the public and parents, from the TE explored in current research. The high expectations from parents reported in the literature are usually associated with strict demands and unjustified blame directed at teachers (Z. Wu & Chen, 2018), which more resemble the requirement that "I want my child to achieve higher" than the TE explored here that "I believe these children can achieve higher." Bearing this in mind, it is important for HTs to understand the differences between the expectations held by various stakeholders and then figure out an effective manner to respond to these external demands. To achieve this, realising the nature of their own TE and the associated effects could be the first step. Given the close relationships between HTs and parents, communicating the discrepancy in expectations of children to achieve a more holistic educational view could be another step forward.

6.3 Theoretical Contributions

Compared to previous research on TE, the spectrum of this project extended the literature in three ways. Firstly, this research was conducted to complement the current TE literature by providing possible associations of TE with different variables. The interaction of teacher emotions and their expectations of students was a focus in Studies 1 and 2. Although both variables have been considered as influential factors in teaching practices, earlier studies have underexplored how TE and emotions interact with each other. Investigating TE effects in the literature has traditionally been done with student outcomes (e.g., Szumski & Karwowski, 2019), and less emphasis has been given to teachers' own emotional experiences. This project filled this gap by comprehensively exploring the interplay of these two factors. Additionally, TE effects were studied with respect to students' SC outcomes in Study 3. Although changes in intelligence or achievement in relation to TE have clearly drawn the most research interest (e.g., Agirdag et al., 2013; Thomas & Strunk, 2017), expectancy effects on student SC (especially nonacademic facets of SC) have been less frequently investigated empirically (S. Wang et al., 2018). Student SC, however, deserves the same attention as cognitive variables given its key role in student overall development, including academic achievement (M. Richardson et al., 2012) and mental health (Xu et al., 2019).

Secondly, this research is seen as important because it has revealed novel insights into researching TE effects in the Chinese high school context and HT context. As noted in the literature review (Chapter 2), only a small number of relevant studies have been conducted in

the Chinese context, with their foci being on teachers in university (Z. Li & Rubie-Davies, 2017, 2018)) and junior high school (Ding & Rubie-Davies, 2019; S. Wang et al., 2021;S. Wang et al., 2019, 2020). Explorations within high school education are of significance due to its crucial role in students' transition from fundamental education to the tertiary level. Therefore, one major contribution of this project, which will inform future researchers, lies within the discussion of its findings in relation to the Chinese high school context. Going further, as discussed earlier, many scholars have conducted similar research on TE effects but obtained varying conclusions in different settings (for a review, see S. Wang et al., 2018). The findings from this thesis echo this mixed picture by showing what was specific to the Chinese high school context and HT context compared with that explored by the available theoretical and empirical literature in the field. Therefore, it would be worth further exploring how TE might be differently manifested, conveyed, and function in various contexts.

Thirdly, what also distinguishes this research is the findings of TE effects on both students and teachers. Reviewing the literature on the associations between various psychosocial variables suggests that a lot is already known about TE effects on an individual student or a specific learning outcome (S. Wang et al., 2018). What is suggested by this thesis, however, is the need to start questioning what TE means to teachers themselves. In doing so, it is hoped that the literature would become refined to focus on teachers' inner selves where TE effects initially happen. The predictive role of TE found in a range of teacher emotions suggested that researchers need to move away from investigating direct impacts of teachers on students and instead consider the interactions between a combination of psychosocial constructs of teachers' own experiences and how these interactions function in teaching before exerting impacts on their students.

6.4 Practical Implications

Numerous practical implications have been discussed as part of the chapters corresponding to Studies 1 to 3. As a whole, exploring the relations between TE, teacher emotions, and student SC development is seen as important, and informative, to various audiences. Whereas this research focused on the group of HTs, as shown below, the results have significant implications for multiple stakeholders who are directly and indirectly involved in teaching and learning in and outside schools.

6.4.1 Implications for Teacher Education and Professional Development

The present project aimed to explore multiple links between individual beliefs and emotions taking place in teaching and learning. This research is seen as important because it

shows that TE could be a possible lever to regulate teacher emotions and enhance student SC. It is hoped that further teacher education and professional development could integrate the findings of this research to equip teachers with high-expectation principles in their practices.

Despite the emotional dilemma teachers are experiencing and the significant role of teacher emotions in teaching and learning, the existing teacher education programmes unfortunately rarely weave such content into their programmes (Yin, 2016). Before introducing specific emotional regulation strategies, it is essential for teachers to first understand the nature of their emotions and individual beliefs, for example, how their emotions are triggered and what kind of mediators work in their experiences. It is hoped that the findings from the current project could help relevant content to be developed and inserted into initial teacher education and professional learning development. It is only when teachers are able to resolve their inner-psychological tensions, that they can perform in a way which indeed makes a difference to teaching effectiveness and to teachers' own experiences and lives. Additionally, sociocultural factors and psychological factors should also be considered given their mediating role in individual's emotions (Yin, 2016).

Understanding emotions and beliefs is one thing, but the development of advanced teaching strategies in relevant settings is a separate issue. Teachers need to be facilitated to master emotional regulation competence and high-expectation strategies to meet the challenges in reality rather than just maintaining the status quo. This is especially important in the context of the instructional changes needed during the COVID-19 pandemic and the consequent emotionally charged atmosphere in schools. It is hoped that teacher education programmes will equip teachers with specific techniques (combining the themes that emerged from Study 2) so that teachers are prepared to respond to their emotions and handle emotion-eliciting situations in a more effective manner. In doing so, a sustainable educational change and consequent improved learning outcomes can be achieved. In sum, it is hoped that these findings will help researchers develop interventions that will make teachers aware of what is happening emotionally and unconsciously, what they can do to improve their emotions, and the various practices they could potentially improve to strengthen their students' positive SC.

6.4.2 Implications for Stakeholders in Education

Whereas a number of studies have argued that teachers' negative emotions are embedded in the teaching profession (e.g., Frenzel et al., 2021; Kelchtermans, 2005), it is hoped that sharing the findings of this research with teachers will help them to be more aware of their TE and emotional experiences, and of how these factors influence their professional lives, and facilitate an increase in their capacity to self-regulate those vulnerabilities.

Furthermore, emotional competence and high-expectation principles could help teachers to improve their teaching practices and help teachers to achieve better student outcomes.

In addition to the implications for teachers who are currently experiencing emotional pressures, it is hoped that the findings of this research will call for a collaboration between teachers with their school leaders and other colleagues (e.g., experienced teachers or other subject teachers). As revealed in the interview data in Study 2, and in previous literature, how teachers feel about themselves is directly related to the ways in which they are positioned by those around them (J. Chen, 2016). Therefore, improvements in teachers' emotional experiences and changes to their beliefs and practices can never be achieved by individual teachers, but, rather, should be carefully considered by different stakeholders within the level of support provided by the school climate. Given the multiple demands that have emerged in classrooms and standards by which teachers are judged, attention to teachers' experiences within schools is necessary. Specifically, it is important for school leaders to realise their responsibility for the psychological well-being of the teaching profession rather than merely for teaching effectiveness, especially in the context of the hierarchical Chinese culture where the voices at the educational frontline are more likely to be marginalised or even ignored during the decision-making process (Yin, 2013). It is hoped that the findings of this project could help raise school leaders' awareness of HTs' devotion to their work and recognise the role that leadership can play in supporting teachers' positive emotions and reducing their experience of negative emotions.

One step forward would be to develop ongoing partnerships between teacher colleagues in a way that moves beyond the pedagogical issue. As mentioned in the literature review chapter, in response to the experienced teachers' reluctance to take up an HT position, the age of current HTs was younger rather than older. However, it is reported that new teachers are more likely to experience emotional quandaries, and one crucial way for them to empower themselves is to seek support from their colleagues (Väisänen et al., 2017). Combined with the findings that contextual resources and support are key factors for teachers' positive emotions (Study 2), it is suggested that efforts should be made to initiate collaborations between teachers. New teachers can be trained in emotional regulation strategies and high-expectation principles, by experienced teachers, internally. In particular, an apprenticeship system could be set up and experience-sharing sessions could be arranged. When teachers share their beliefs, confusions, various aspects of teaching, and ways of responding to dilemmas, in a collaborative and dynamic way, they are more likely to develop coping solutions and relieve their difficulties (Ali et al., 2006).

6.5 Limitations and Future Research Directions

Some limitations of this research, such as the reliance on self-report data and the exploratory nature of the studies, have already been discussed in previous chapters and considered when interpreting the study findings. Thus, only the limitations of the whole research project will be addressed in this section, to avoid repetition. This section will also provide suggestions for future directions which are testimony to the implications of this research project.

One limitation to the overall design of this project is the lack of student voice and views of TE. Although students' SC outcomes were measured through a questionnaire, it would have been even better to have also approached the other side of the story, for example, how students perceived and interpreted their HT's TE. These views are worthy of investigation given that the way in which students conceive and perceive TE is a key part of TE effects. Therefore, a qualitative follow-up study (e.g., interview with students, class observations) could be conducted to enable additional understanding about why and how any significant relations emerged as they did.

Secondly, one thing that can be perceived as a limitation and a point of discussion is the lack of, and thus the need for, experimental studies that explore other types of TE. The studies in this project only focused on the academic TE, nevertheless, teachers may hold TE of other fields such as expectations for students' moral development. Therefore, future investigations could explore teachers' nonacademic expectations for their students and their possible relations with students' personal development. Whereas this project was conducted within the group of HTs, it is hoped that the findings can be transferred to subject teachers. Whether such TE effects exist among subject teachers and, if so, whether the patterns work in similar ways to those of their HT counterparts are worthy of further exploration.

Lastly, due to the time limit of a PhD project and the constraints of COVID-19, the current research was only able to track teacher and student data for 1 school year. A more dynamic trajectory of TE could be expected to emerge from the research if it covered more school years with more data points. Additionally, fewer time points measured in this research indicate that caution should be taken when interpreting the trends. Given the differences found between the students of high- and low-expectation teachers by the end of the school year, it would seem worthwhile to examine the accumulation of TE effects longitudinally. Additionally, longitudinal studies would also enable researchers to build trusted relationships with teachers and students, which would help participants feel more comfortable to share the crucial and underexplored experiences concerning their emotions and beliefs.

6.6 Concluding Comments

This doctoral project took 3 years, three studies, two methods of inquiry, and a total of 135 HTs and 348 students to generate an overall picture of TE effects in the Chinese high school context. The associations found between TE, teacher emotions, and student SC outcomes can be seen as a stepping-stone towards a more comprehensive understanding of TE effects.

Although this research attempted to portray how TE effects were exerted in Chinese high school contexts, and the possible explanations for the underlying mechanism, this work is still in its infancy. Therefore, this thesis has not only answered but has also raised profound questions regarding what could be done in future explorations to provide insights into the social-psychological field of education following the findings of this doctoral project.

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Appendices

Appendix A. Teacher Questionnaires

There are three sections of the questionnaires. Please answer each question to the best of your ability.

Section 1 Demographic Information

	Demographic Information
	Your name: (_____) The homeroom class you are in charge of this school year: Class (__) Grade (_____) I'm willing to attend the individual interview. Yes ( ) Please contact me at:_____ No ( )
1.	Are you currently a homeroom teacher?
	Yes / No
2.	What is your gender?
	Female / Male
3.	What is your age?
	21-25 / 26-30 / 31-35 / 36-40 / 41-45 / 46-50 / 51-55 / 56-60 / Over 60
4.	What is the highest level of formal education you have completed?
	Bachelor's Degree / Master's Degree / Doctorate
5.	Are you graduated from Normal University?
	Yes / No
6.	Did you receive training to become a homeroom teacher? If so, what was the length of the training?
	Yes / No Less than 20 hours / 20-40 hours / 40-60 hours / More than 60 hours
7.	How many total years of teaching experience do you have?
	Less than 1 month / Less than 6 months / Less than 1 year / 1-3 years / 4-6 years / 7-10 years / 11-15 years / 16-20 years / More than 20 years
8.	How many total years have you been a homeroom teacher?
	Less than 1 month / Less than 6 months / Less than 1 year / 1-3 years / 4-6 years / 7-10 years / 11-15 years / 16-20 years / More than 20 years

9.	Which of the following best describes the subject/s that you teach this school year? Check all that apply.
	Chinese / Mathematics / English / Chemistry / Physics / Arts / Physical education / Psychology / Other (please specify) (_____)
10.	In terms of your subject teaching, which of the following best describes the grade level/s that you are teaching this school year? Check all that apply.
	Grades 10 / Grades 11 / Grades 12
11.	How many classes do you teach your subject each week this school year? (assuming that one class lasts around 40 minutes)
	Less than 1 class / 1-5 classes / 6-10 classes / 11-15 classes / 16-20 classes / 21-25 classes / 26-30 classes / More than 30 classes
12.	How many total students are in your homeroom class this year?
	Below 25 / 25-30 / 31-35 / 36-40 / 41-45 / 45-50 / More than 50
13.	About how many hours do you spend per day on work related to your homeroom class?
	Less than 1 hour / 1-2 hours / 2-4 hours / 4-6 hours / 6-8 hours / Over 8 hours
14.	Was in-service training pertaining to being a homeroom teacher provided by your school? If yes, how often was it?
	Yes / No Once a school year / Once a semester / Twice a semester / More than twice a semester

Section 2 Homeroom Teacher Emotion Scale

Instructions:

In this section, please indicate how often you think or feel with the following statements.

Please choose the number which is the most appropriate for you.

		strongly disagree	**disagree**	**slightly disagree**	**Neutral**	**slightly agree**	**agree**	**strongly agree**
1.	I am glad when I achieve my teaching goals.	1	2	3	4	5	6	7
2.	I am joyful when the class atmosphere is positive.	1	2	3	4	5	6	7
3.	I am happy when I manage to motivate students to learn.	1	2	3	4	5	6	7
4.	I am happy when students understand the material.	1	2	3	4	5	6	7
5.	Exerting a positive influence on my students makes me happy.	1	2	3	4	5	6	7
6.	I feel like a winner when my students succeed.	1	2	3	4	5	6	7
7.	Due to my students' achievements, I feel as if I am 'growing.'	1	2	3	4	5	6	7
8.	I am filled with pride when I make a student interested in my subject.	1	2	3	4	5	6	7
9.	Meetings with successful former students of mine make me proud.	1	2	3	4	5	6	7
10.	When I am proud of my students, I feel that my confidence is growing.	1	2	3	4	5	6	7
11.	Pride due to my students' achievements confirms to me that I am doing a good job.	1	2	3	4	5	6	7
12.	I feel warmth when I just think about my students.	1	2	3	4	5	6	7
13.	I love my students.	1	2	3	4	5	6	7
14.	My students evoke feelings of love inside me.	1	2	3	4	5	6	7
15.	I feel affection towards my students.	1	2	3	4	5	6	7
16.	I wish to praise my students since I like them so much.	1	2	3	4	5	6	7
17.	I honestly care about each of my students.	1	2	3	4	5	6	7

18.	I sweat from frustration when the class does not operate in the way that I want it to.	1	2	3	4	5	6	7
19.	The reactions of some students frustrate me so much that I would rather just quit the job.	1	2	3	4	5	6	7
20.	The frustration I feel while working with students undermines my job motivation.	1	2	3	4	5	6	7
21.	Some students make me so angry that my face goes red.	1	2	3	4	5	6	7
22.	I get an anger-caused headache from the behaviour of some students.	1	2	3	4	5	6	7
23.	At the end of my working day, I just want to rest.	1	2	3	4	5	6	7
24.	When I finish classes, I feel numb.	1	2	3	4	5	6	7
25.	My job sometimes makes me so tired that all I want to do is 'switch off.'	1	2	3	4	5	6	7
26.	Due to the speedy pace of work, at the end of the day I feel as if I am going to fall down.	1	2	3	4	5	6	7
27.	Sometimes I am so exhausted at work that I only think about how to endure.	1	2	3	4	5	6	7
28.	When I finish my work, I feel drained.	1	2	3	4	5	6	7
29.	Sometimes working with children makes me so tired that I can barely move.	1	2	3	4	5	6	7
30.	I feel I cannot do anything more to correct the behaviour of some students.	1	2	3	4	5	6	7
31.	While working with completely unmotivated students, I feel there is no way out.	1	2	3	4	5	6	7
32.	Because of the behaviour of some students, I feel completely helpless.	1	2	3	4	5	6	7
33.	I feel hopeless when I think about the achievement of some students.	1	2	3	4	5	6	7
34.	It seems to me that I cannot do anything to get through to some students.	1	2	3	4	5	6	7
35.	I feel defenceless because I cannot help some of my students.	1	2	3	4	5	6	7
36.	I feel tense and nervous while teaching my students.	1	2	3	4	5	6	7

37.	I am often worried that my teaching isn't going so well with my students.	1	2	3	4	5	6	7
38.	Preparing to teach my students often causes me to worry.	1	2	3	4	5	6	7
39.	I feel uneasy when I think about teaching my students.	1	2	3	4	5	6	7

Section 3 Teacher Expectancy Survey

Student number	**Instructions:**		
	Please indicate the scores you believe your students will achieve at the end of this school year. You may need a list of student names and student number on hand to finish this survey. Note: please assume a total score per subject is 150. Level 1 (below 60), Level 2 (60–69), Level 3 (70–79), Level 4 (80–89), Level 5 (90–99), Level 6 (100–109), Level 7 (110–119), Level 8 (120–129), Level 9 (130–139), and Level 10 (140–150)		
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Thank you for your time and cooperation!

Appendix B. Participant Information Sheets, Consent/Assert Forms

School of Learning, Development, and Professional Practice
Faculty of Education and Social Work
Private Bag 92019
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The University of Auckland
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PARTICIPANT INFORMATION SHEET

(PRINCIPAL)

Project title: Chinese Homeroom Teachers' Expectations and Relations with their Emotions and Students' Self-Concept

Principal Investigator: Professor Christine Rubie-Davies

Co-investigator: Associate Professor Mei Kuin Lai

Researcher: Mengnan Li

I am Mengnan Li, a doctoral student in the Faculty of Education and Social Work. I am conducting research for my PhD thesis in Education, supervised by Professor Christine Rubie-Davies and Associate Professor Mei Kuin Lai, at the Faculty of Education and Social Work, the University of Auckland, New Zealand.

Project Description and Invitation

The aim of this project is to explore the relations between teacher expectations and their relations with teachers' emotions, and how such interactions might be related to their students' self-concept. There will be three studies in this project, including one questionnaire for teachers, two questionnaires for students, and some possible individual interviews with participating teachers. This project could reveal interesting results and future research directions, which will contribute to the understanding of teacher expectations and their emotions, and relations with students' self-concepts. Therefore, I would like to seek your permission to invite homeroom teachers and students in your school to participate in my research.

Project Procedures

Your participation. All participation in the research will be completely voluntary. If you agree that your school can be involved in this research, you will be asked to sign the Consent Form (CF). If your school agrees to participate, we will ask you to provide a contact list of homeroom teachers for the researcher and allow your students who consent to participate to provide their scores in the latest examination.

Participants' recruiting procedure. By signing the CF, you will give the researcher permission to contact the homeroom teachers and students in consenting homeroom teachers' classrooms. The researcher will email the Participation Information Sheets (PISs) and consent forms (CFs) to all homeroom teachers in your school. Meanwhile, there will be instructions in the PISs for homeroom teachers who agree to participate to distribute students' PISs and CFs to all the participants and parents/caregivers of students under 16 years old. The Qualtrics link of student questionnaire will be printed on student PISs.

Given that the project is entirely voluntary, I seek your assurance that your staff and students are free to participate in the research, and non-participation will not influence teachers' relations with the school, their employment, performance evaluation, and well-being, and your students' relation with the school, curriculum grades, dignity, and well-being.

Data Collection Procedure. Participating teachers will be asked to complete an online questionnaire, which will take approximately 20 minutes to complete. Teachers will also be asked to help send the PISs and CFs to their students. Additionally, some homeroom teachers might be invited to attend an individual interview, which will take around 30-60 minutes. All these parts will happen in teachers' work time. To thank them for their participation, each interviewee will be given a $20 gift card. This will be indicated in their PISs and CFs.

Participating students will be asked to complete an online questionnaire twice. They will need 10 minutes to complete each questionnaire. This point will also be indicated in the PIS for homeroom teachers. As a part of the measure of teacher expectations, student participants will be asked in the questionnaire about their scores of the final examination of the last semester in Maths, English, and Chinese. This could be their senior high school entrance examination scores (for Grade 10 students) or school final examination scores from the last semester (for Grade 11 and 12 students).

Anonymity and Confidentiality

Participants' responses to the questionnaire will not be anonymous because we need to compare teachers' data with those for students. Hence, students will be asked to provide

their student ID numbers along with their answers. Additionally, participants in interviews will expose their identity to the researcher only. This will be explicitly communicated to them via their PISs and the CFs they will have to sign prior to participating in this research. However, participants will be given an absolute assurance that their data will be reported anonymously.

Confidentiality is completely guaranteed, as the data collected from participants will be reported anonymously, and the researcher will not be exposing the identity of any participant when reporting the findings from the data. All responses provided in Qualtrics are protected through Transport Layer Security encryption and hosted by data centres using the industry standard SSAE-16 method. Additionally, all data will be coded by a coding method with numbers and letters when transcribed into computer documents. No schools, teachers, or students will be identified by name in any further publications related to this project. Further, no names will be entered into the research database.

Right to Withdraw from Participation

Participation in this research is completely voluntary. You have the right to withdraw your school from the research up to two weeks after the start of data collection without giving a reason. Any data from your school will be destroyed if you choose to withdraw from the research. The researcher will only use previously captured data with your permission.

All teacher and student participants also have the right to choose whether or not to participate in the research. Teacher interviewees will have the right to go through their transcribed interview and confirm whether any part of it needs to be changed or altered. This will be explicitly communicated to participants via their PISs and CFs. Also, participants may withdraw their participation up to two weeks after their completion of their questionnaires/ interviews without giving a reason.

Data Storage/Retention/Future Use

Audio recordings transcribed by the researcher will be deleted from the digital voice recorder within seven days after the date of the interview. Once data have been collected and all information has been transcribed, all study data will be locked in a file cabinet whereas the digital file will be stored in a password protected University of Auckland computer on a University of Auckland server (separate from any consent forms). All study data will be destroyed six years after the doctoral project has been completed.

The data will be used for the student researcher's PhD thesis, and in further academic publications and/or presentations.

A summary of the study findings can be provided to you upon request following the completion of the research in April 2022.

Thank you again for taking the time to consider and participate in this research.

Contact Details

<table>
<tr><th>Student Researcher</th><th colspan="2">Supervisors</th></tr>
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For any queries regarding ethical concerns you may contact the Chair, The University of Auckland Human Participants Ethics Committee, The University of Auckland, Research Office, Private Bag 92019, Auckland 1142. Telephone 09 373-7599 ext. 87830/83761. E-mail: humanethics@auckland.ac.nz

Approved by the University of Auckland Human Participants Ethics Committee on 4th May 2020 for three years. Reference Number 024436

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CONSENT FORM

(PRINCIPAL)

This form will be kept for a period of six years

Project title: Chinese Homeroom Teachers' Expectations and Relations with their Emotions and Students' Self-Concept

Principal Investigator: Professor Christine Rubie-Davies

Co-investigator: Associate Professor Mei Kuin Lai

Researcher: Mengnan Li

I have read the Participant Information Sheet carefully. I understand the nature of the research and why my school has been selected. I have had the opportunity to ask questions and have them answered to my satisfaction.

- I agree to take part in this research conducted by Mengnan Li as part of her doctoral study.
- I agree to provide the contact list of all homeroom teachers in my school (including their e-mail address).
- I agree the consented students in my school to share their latest examination scores with the researcher.
- I allow the researchers to contact homeroom teachers and students in my school.
- I allow the homeroom teachers and students to participate in the project in school time.
- I provide an assurance that my staff and students are free to participate in the research, and non-participation will not influence my staff's relationships with the school, employment, performance evaluation, and

well-being, and my students' relation with the school, curriculum grades, dignity, and well-being as well.

I understand that:

- My participation in this study is entirely voluntary.
- Confidentiality will be completely guaranteed to teachers and students.
- No third party will have access to any data collected in this research.
- If any provided information is reported or published, it will be in a way that does not identify any teacher, students, or my school as a source of the information.
- I am totally free to withdraw my school's participation and/or relevant data within two weeks after the start of data collection without giving a reason.
- I wish/do not wish to receive a summary of findings, which can be emailed to me at this email address: _____

Please write your name, sign and date below if you consent to participating in this research.

Name _____

Signature _____ Date _____

Approved by the University of Auckland Human Participants Ethics Committee on 4th May 2020 for three years. Reference Number 024436

School of Learning, Development, and Professional Practice
Faculty of Education and Social Work
Private Bag 92019
Auckland 1142, New Zealand
The University of Auckland
Private Bag 92019
Auckland, New Zealand

PARTICIPANT INFORMATION SHEET

(TEACHERS)

Project title: Chinese Homeroom Teachers' Expectations and Relations with their Emotions and Students' Self-Concept

Principal Investigator: Professor Christine Rubie-Davies

Co-investigator: Associate Professor Mei Kuin Lai

Researcher: Mengnan Li

I am Mengnan Li, a doctoral student in the Faculty of Education and Social Work. I am conducting research for my PhD thesis in Education, supervised by Professor Christine Rubie-Davies and Associate Professor Mei Kuin Lai, at the Faculty of Education and Social Work, the University of Auckland, New Zealand.

Project Description and Invitation

The aim of this project is to explore the relations between teacher expectations and their emotions, and how such interactions might be related to their students' self-concept. There will be three studies in this project, including one questionnaire for teachers, two questionnaires for students, and some possible individual interviews with participating teachers. This project could reveal interesting results and future research directions, which will contribute to the understanding of teacher expectations, their emotions, and students' self-concepts. Therefore, I would like to invite you to take part in this project as you are a homeroom teacher working in a high school in China.

Project Procedures

Participation in the research is entirely voluntary and I have an assurance from your principal that your participation or non-participation will not affect your relationship with the school, employment, performance evaluation, and well-being. If you agree to participate in this research, you will be asked to sign the Consent Form (CF). Your participation is entirely

voluntary. You are assured that no information you give will/can be shared with your principal and he/she won't even be able to tell whether you have participated in the study.

Your participation in this research might include the following three parts:

(1) Completing an on-line questionnaire, which will take approximately 20 minutes. You are allowed to complete the questionnaire during your work time as the researcher has already acquired the permission of your principal for that. Please enter the link:
https://auckland.au1.qualtrics.com/jfe/form/SV_aV7Fnm5oLUF0BSe
or scan the code:

(2) You will need to help send the Participation information sheets (PISs), consent forms (CFs) to students and students' (who are under 16 years old) parents/caregivers in your homeroom class. The online link of student questionnaire is shown on student PISs. As a part of the measure of teacher expectations, student participants will be asked in the questionnaire about their scores of the final examination of the last semester in Maths, English, and Chinese. This could be their senior high school entrance examination scores (for Grade 10 students) or school final examination scores from the last semester (for Grade 11 and 12 students). Please provide an assurance that your students are free to participate in the research. Students who are willing to participate in the project will need approximately 10 minutes to finish their questions. Please also inform the students that you have no access to their answers and their participation is totally voluntary.

(3) Indicating on your CF whether you are willing to attend the follow-up individual interview. You might be invited to attend an individual interview if you volunteered, which will take around 30-60 minutes. Both questionnaire and interviews will happen in your work time. To thank you for your participation in the interviews, you will be given a $20 gift card. Your interest in participating in the interviews will not affect your participation in the rest of the project. You can participate in the questionnaire but not the interview.

Anonymity and Confidentiality

Your responses to the questionnaire will not be anonymous, because we need to compare your answers with students' data. Hence, you will be asked to provide your homeroom class number on the questionnaire. If you consent to be interviewed, the participants in interviews will expose their identity to the researcher only.

However, the researchers give you an assurance of confidentiality. All responses provided in Qualtrics are protected through Transport Layer Security encryption and hosted by data centres using the industry standard SSAE-16 method. Additionally, all data will be coded by a coding method with numbers and letters when transcribed into computer documents. No schools, teachers, or students will be identified by name in any further publications related to this project. Further, no names will be entered into the research database.

Right to Withdraw from Participation

Participation in this research is completely voluntary. You have the right to withdraw from the research up to two weeks after your completion of the questionnaire /interviews without giving a reason. Any data provided by you will be destroyed if you choose to withdraw from the research. The researcher will only use previously captured data with your permission.

Data Storage/Retention/Future Use

Audio recordings transcribed by the researcher will be deleted from the digital voice recorder within seven days after the date of the interview. Once data have been collected and all information has been transcribed, all study data will be locked in a filing cabinet whereas the digital file will be stored in a password protected University of Auckland computer on a University of Auckland server (separate from any consent forms). All study data will be destroyed six years after the doctoral project has been completed.

The data will be used for the student researcher's PhD thesis, and in further academic publications and/or presentations.

A summary of the study findings can be provided for you upon request following the completion of the research in April 2022.

Thank you again for taking the time to consider and participate in this research.

Contact Details

Student Researcher	**Supervisors**	
Mengnan Li	**Christine Margaret Rubie-Davies**	**Associate Professor Mei Kuin Lai**

Doctoral Student Learning, Development and Professional Practice Faculty of Education and Social Work The University of Auckland Ph: 021 2632779 (NZ) / +86-13764919859 (CH) Email: mengnan.li@auckland.ac.nz	Professor Learning, Development and Professional Practice Faculty of Education and Social Work The University of Auckland Private Bag 92601 Auckland, New Zealand Ph: (+649) 923 2974 Email: c.rubie@auckland.ac.nz	Associate Professor Curriculum and Pedagogy Faculty of Education and Social Work The University of Auckland Private Bag 92601 Auckland, New Zealand Ph: +64 9 373 7999 ext. 48658 Email: mei.lai@auckland.ac.nz
Head of School: Associate Professor Richard Joseph Hamilton School of Learning, Development and Professional Practice Faculty of Education and Social Work The University of Auckland Private Bag 92019 Auckland, New Zealand Ph: (+64 9) 923 5619 Email: rj.hamilton@auckland.ac.nz		

For any queries regarding ethical concerns you may contact the Chair, The University of Auckland Human Participants Ethics Committee, The University of Auckland, Research Office, Private Bag 92019, Auckland 1142. Telephone 09 373-7599 ext. 87830/83761. E-mail: humanethics@auckland.ac.nz

Approved by the University of Auckland Human Participants Ethics Committee on 4th May 2020 for three years. Reference Number 024436

School of Learning, Development, and Professional Practice
Faculty of Education and Social Work
Private Bag 92019
Auckland 1142, New Zealand
The University of Auckland
Private Bag 92019
Auckland, New Zealand

CONSENT FORM

(HOMEROOM TEACHERS' QUESTIONNAIRE)

This form will be kept for a period of six years

Project title: Chinese Homeroom Teachers' Expectations and Relations with their Emotions and Students' Self-Concept

Principal Investigator: Professor Christine Rubie-Davies

Co-investigator: Associate Professor Mei Kuin Lai

Researcher: Mengnan Li

I have read the Participant Information Sheet and have understood the nature of the research and why I have been selected. I have had the opportunity to ask questions and have them answered to my satisfaction.

- I agree to take part in the questionnaire.
- I agree to send the Participant Information Sheet and the Consent Form to the students in my homeroom class.
- I agree to allow students who are willing to participate in the project approximately 10 minutes to finish their questions.
- I provide an assurance that my students are free to participate in the research.
- I agree/do not agree to participate in the following individual interview.
  If Yes please provide your Contact details:

  _____

  _____

I understand that

- My participation is voluntary and will take around 20-30 minutes for the questionnaire.

- I'm free to withdraw participation and any data traceable to me up to two weeks from completing the questionnaire without giving a reason.
- I do not have to answer any questions that I do not wish to answer, without giving a reason.
- My responses will be treated in a confidential manner.
- The data I provide will be stored securely on the University of Auckland server and will be kept for a minimum of 6 years or until the project is completed, after which they will be destroyed.
- The data collected from me will be used for the student researcher's PhD thesis and other publications or conference presentations.
- An assurance has been given by the principal that I am free to participate in the research, and non-participation will not influence my relations with the school, employment, performance evaluation, and well-being.
- No third party will have access to any data collected in this research.
- I wish/do not wish to receive a summary of findings, which can be emailed to me at this email address: _____

Please write your name, sign and date below if you consent to participating in this research.

Name _____

Signature _____ Date _____

Approved by the University of Auckland Human Participants Ethics Committee on 4th May 2020 for three years. Reference Number 024436

School of Learning, Development, and Professional Practice
Faculty of Education and Social Work
Private Bag 92019
Auckland 1142, New Zealand
The University of Auckland
Private Bag 92019
Auckland, New Zealand

CONSENT FORM

(HOMEROOM TEACHERS' INTERVIEWS)

This form will be kept for a period of six years

Project title: Chinese Homeroom Teachers' Expectations and Relations with their Emotions and Students' Self-Concept

Principal Investigator: Professor Christine Rubie-Davies

Co-investigator: Associate Professor Mei Kuin Lai

Researcher: Mengnan Li

I have read the Participant Information Sheet and have understood the nature of the research and why I have been selected. I have had the opportunity to ask questions and have them answered to my satisfaction.

- I agree to take part in the interview.

I understand that

- My participation is voluntary and will take between 30 to 60 minutes.
- I'm free to withdraw participation and any data traceable to me up to two weeks from completing the interview.
- I will receive a $20 gift voucher for my participation at the end of the interview.
- My interview will be audio-recorded and transcribed.
- I have the option to stop the recording at any time during the interview.
- I do not have to answer any questions that I do not wish to answer, without giving a reason.
- The audio recording in digital voice recorder will be deleted within seven days after the completion of the interview.
- My responses will be treated in a confidential manner.

- The data I provide will be stored securely on the University of Auckland server and will be kept for a minimum 6 years or until the project is completed, after which they will be destroyed.
- The data collected from my interview will be used for the student researcher's PhD thesis and other publications or conference presentations.
- No third party will have access to any data collected in this research.
- I wish / do not wish to receive a copy of the transcription. If yes, I will be allowed to change and withdraw any data I like without giving a reason within two weeks of receiving the transcripts.
  If Yes, please provide your contact details:
  _____
  _____
- I wish/do not wish to receive a summary of findings, which can be emailed to me at this email address: _____

Please write your name, sign and date below if you consent to participating in this research.

Name _____

Signature _____ Date _____

Approved by the University of Auckland Human Participants Ethics Committee on 4th May 2020 for three years. Reference Number 024436

School of Learning, Development, and Professional Practice
Faculty of Education and Social Work
Private Bag 92019
Auckland 1142, New Zealand
The University of Auckland
Private Bag 92019
Auckland, New Zealand

PARTICIPANT INFORMATION SHEET

(Students 16 years old and over)

Project title: Chinese Homeroom Teachers' Expectations and Relations with their Emotions and Students' Self-Concept

Principal Investigator: Professor Christine Rubie-Davies

Co-investigator: Associate Professor Mei Kuin Lai

Researcher: Mengnan Li

I am Mengnan Li, a doctoral student in the Faculty of Education and Social Work. I am conducting research for my PhD thesis in Education, supervised by Professor Christine Rubie-Davies and Associate Professor Mei Kuin Lai, at the Faculty of Education and Social Work, the University of Auckland, New Zealand.

Project Description and Invitation

The aim of this project is to explore the relations between teacher expectations and their emotions, and how such interactions might be related to their students' self-concept. I would like to invite you to take part in this project as you are a high school student and your information will be valuable for this project. The questionnaire has been designed to understand and track the development of your self-concepts.

Project Procedures

Your participation. If you agree to participate in this research, you will be asked to sign the Consent Form (CF). You can then click a button at the end of the form and it will come to us. Your participation in this research is entirely voluntary. You are assured that no information you give will/can be shared with your principal or teachers and they won't even be able to tell whether you have participated in the study.

Your participation will be completing a questionnaire twice. Each of them will take approximately 10 minutes and you can complete them online. The questionnaire involves 1) a

question on your latest scores in Chinese, Mathematics and English; and 2) questions related to your self-concepts. It is important to know that your willingness to participate in these two parts will not affect your taking part in either one. No one except the researcher will get access to your answers.

If you are willing to participate, please enter the link: https://auckland.au1.qualtrics.com/jfe/form/SV_cBGa0fJuhTltKTQ

or scan the code:

Anonymity and Confidentiality

Your responses to the questionnaire will not be anonymous, because we need to compare your answers with your homeroom teachers' data, you will be asked to provide your student ID number on the questionnaire.

However, the researchers give you an assurance of confidentiality. Regarding questionnaires, all responses provided in Qualtrics are protected through Transport Layer Security encryption and hosted by data centres using the industry standard SSAE-16 method. Additionally, all data will be coded using a coding method with numbers and letters when transcribed into computer documents. No schools, teachers, or students will be identified by name in any publications related to this project. Further, no names will be entered into the research database.

Right to Withdraw from Participation

Participation in this research is completely voluntary. You have the right to withdraw from the research up to two weeks after completing the questionnaires without giving a reason. Any data provided by you will be destroyed if you choose to withdraw from the research. The researcher will only use previously captured data with your permission.

Data Storage/Retention/Future Use

Once data have been collected and all information has been transcribed, all study data will be locked in a filing cabinet whereas the digital file will be stored in a password protected University of Auckland computer on a University of Auckland server (separate from any consent forms). All study data will be destroyed six years after the doctoral project has been completed.

The data will be used for the student researcher's PhD thesis, and in further academic publications and/or presentations.

Thank you again for taking the time to consider participating in this research.

Contact Details

<table>
<tr><th>Student Researcher</th><th colspan="2">Supervisors</th></tr>
<tr><td>Mengnan Li</td><td>Christine Margaret Rubie-Davies</td><td>Associate Professor Mei Kuin Lai</td></tr>
<tr><td>Doctoral Student
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mei.lai@auckland.ac.nz</td></tr>
<tr><td colspan="3">Head of School: Associate Professor Richard Joseph Hamilton
School of Learning, Development and Professional Practice
Faculty of Education and Social Work
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Private Bag 92019
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Ph: (+64 9) 923 5619
Email: rj.hamilton@auckland.ac.nz</td></tr>
</table>

For any queries regarding ethical concerns you may contact the Chair, The University of Auckland Human Participants Ethics Committee, The University of Auckland, Research Office, Private Bag 92019, Auckland 1142. Telephone 09 373-7599 ext. 87830/83761. E-mail: humanethics@auckland.ac.nz

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Faculty of Education and Social Work
Private Bag 92019
Auckland 1142, New Zealand
The University of Auckland
Private Bag 92019
Auckland, New Zealand

CONSENT FORM

(Students 16 years old and over)

This form will be kept for a period of six years

Project title: Chinese Homeroom Teachers' Expectations and Relations with their Emotions and Students' Self-Concept

Principal Investigator: Professor Christine Rubie-Davies

Co-investigator: Associate Professor Mei Kuin Lai

Researcher: Mengnan Li

I have read the Participant Information Sheet and have understood the nature of the research and why I have been selected. I have had the opportunity to ask questions and have them answered to my satisfaction.

- I agree to complete the two questionnaires.

I understand that

- My participation is voluntary and will take around 20 minutes in total.
- My willingness to share my examination scores with the researchers will not affect my participation in the questionnaire, and vice versa.
- I'm free to withdraw participation and any data traceable to me up to two weeks from completing the questionnaire/sharing my scores without giving a reason. I do not have to answer any questions that I do not wish to answer, without giving a reason.
- My responses and my scores will be treated in a confidential manner if I choose to share them with the researchers.
- The data I provide will be stored securely on the University of Auckland server and will be kept for a minimum 6 years or until the project is completed, after which they will be destroyed.

- The data collected from me will be used for the student researcher's PhD thesis and other publications or conference presentations.
- No third party will have access to any data collected in this research.

Please write your name, sign and date below if you consent to participating in this research.

Name _____

Signature _____ Date _____

Please click this button if you have read the Consent Form and agree to be part of this study.

Approved by the University of Auckland Human Participants Ethics Committee on 4th May 2020 for three years. Reference Number 024436

School of Learning, Development, and Professional Practice
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Auckland 1142, New Zealand
The University of Auckland
Private Bag 92019
Auckland, New Zealand

CONSENT FORM

(Parents/Caregivers)

This form will be kept for a period of six years

Project title: Chinese Homeroom Teachers' Expectations and Relations with their Emotions and Students' Self-Concept

Principal Investigator: Professor Christine Rubie-Davies

Co-investigator: Associate Professor Mei Kuin Lai

Researcher: Mengnan Li

I have read the Participant Information Sheet and have understood the nature of the research and why my child has been selected. I have had the opportunity to ask questions and have them answered to my satisfaction.

- I voluntarily agree that my child may participate in completing two questionnaires for this research.

I understand that

- The participation of my child is voluntary and will take around 20 minutes in total.
- The willingness to share the examination scores with the researchers will not affect the participation in the questionnaire, and vice versa.
- I'm free to withdraw my child's participation and any data traceable to my child up to two weeks from completing the questionnaire/sharing the scores without giving a reason.
- My child does not have to answer any questions that my child does not wish to answer, without giving a reason.
- The responses and scores my child provide will be treated in a confidential manner if my child choose to share them with the researchers.

- The data my child provide will be stored securely on the University of Auckland server and will be kept for a minimum 6 years or until the project is completed, after which they will be destroyed.
- The data collected from my child will be used for the student researcher's PhD thesis and other publications or conference presentations.
- No third party will have access to any data collected in this research.

Please write your name, sign and date below if you consent your child to participating in this research, and then click the button below which will send your consent to the student researcher. If you do not consent to your child taking part in this study, simply close your browser. Your form will not be submitted.

Name _____

Signature _____ Date _____

Please click this button if you have read the Consent Form and agree for your child to be part of this study.

Approved by the University of Auckland Human Participants Ethics Committee on 4th May 2020 for three years. Reference Number 024436

School of Learning, Development, and Professional Practice
Faculty of Education and Social Work
Private Bag 92019
Auckland 1142, New Zealand
The University of Auckland
Private Bag 92019
Auckland, New Zealand

ASSENT FORM

(Students under 16 years old)

To all students who are under 16 years old from _____School

I am Mengnan Li, a doctoral student in the Faculty of Education and Social Work. I am conducting research for my PhD thesis in Education, supervised by Professor Christine Rubie-Davies and Associate Professor Mei Kuin Lai, at the Faculty of Education and Social Work, the University of Auckland, New Zealand.

The aim of this project is to explore the relations between teacher expectations and their emotions, and how such interactions might be related to their students' self-concept. I would like to invite you to take part in this project as you are a high school student and your information will be valuable for this project. The questionnaire has been designed to understand and track the development of your self-concepts.

I will be working in your school and other schools conduct a student questionnaire twice, one homeroom teacher questionnaire and collecting your scores. The purpose of the student questionnaire is to investigate how student self-concepts are related to teacher expectations. The collection of your scores is to evaluate the level of teacher expectations which requires a comparison between your actual achievement and how your teacher believe you will achieve in future. You are warmly invited to participate in this research.

If you agree to participate in this research, you will be asked to sign the Consent Form (CF). Your participation in this research is entirely voluntary. You are assured that no information you give will/can be shared with your principal or teachers and they won't even be able to tell whether you have participated in the study.

If you consent to be involved in this study, you will be asked to complete a questionnaire twice. Each of them will take approximately 10 minutes and you can complete

them either online. The questionnaire involves 1) a question on your latest scores in Chinese, Mathematics, and English; and 2) questions related to your self-concepts. It is important to know that your willingness to participate in these two parts will not affect your taking part in either one. No one except the researcher will get access to your answers.

If you would like to participate in two questionnaires, and / or sharing your latest scores, please sign your name below:

Name _____

Signature _____ Date _____

Please click this button if you have read the Consent Form and agree to be part of this study.

Approved by the University of Auckland Human Participants Ethics Committee on 4th May 2020 for three years. Reference Number 024436

Appendix C. Student Self-Description Questionnaires

In this section, please indicate how often you think or feel with the following statements. Please choose the number which is the most appropriate for you.

	Student number: ( ) **Grade ( ) Class ( )** **My recent score is ( )**	**strongly disagree**	**disagree**	**slightly disagree**	**Neutral**	**slightly agree**	**agree**	**strongly agree**
1.	I often tell small lies to avoid embarrassing situations.	1	2	3	4	5	6	7
2.	People can always rely on me.	1	2	3	4	5	6	7
3.	Being honest is not particularly important to me.	1	2	3	4	5	6	7
4.	I nearly always tell the truth.	1	2	3	4	5	6	7
5.	I sometimes take things that do not belong to me.	1	2	3	4	5	6	7
6.	I never cheat.	1	2	3	4	5	6	7
7.	Being dishonest is often the lesser of two evils.	1	2	3	4	5	6	7
8.	I am a very honest person.	1	2	3	4	5	6	7
9.	I would feel OK about cheating on a test as long as I did not get caught.	1	2	3	4	5	6	7
10.	I value integrity above all other virtues.	1	2	3	4	5	6	7
11.	I am not a very reliable person.	1	2	3	4	5	6	7
12.	I have never stolen anything of consequence.	1	2	3	4	5	6	7
13.	I am usually pretty calm and relaxed.	1	2	3	4	5	6	7
14.	I worry a lot.	1	2	3	4	5	6	7
15.	I am happy most of the time.	1	2	3	4	5	6	7
16.	I am anxious much of the time.	1	2	3	4	5	6	7
17.	I hardly ever feel depressed.	1	2	3	4	5	6	7
18.	I tend to be high-strung, tense, and restless.	1	2	3	4	5	6	7
19.	I do not spend a lot of time worrying about things	1	2	3	4	5	6	7
20.	I am often depressed.	1	2	3	4	5	6	7
21.	I am inclined towards being an optimist.	1	2	3	4	5	6	7
22.	I tend to be a very nervous person.	1	2	3	4	5	6	7
23.	I am never able to think up answers to problems that haven’t already been figured out.	1	2	3	4	5	6	7

24.	I am good at combining ideas in ways that others have not tried.	1	2	3	4	5	6	7
25.	I wish I had more imagination and originality.	1	2	3	4	5	6	7
26.	I enjoy working out new ways of solving problems.	1	2	3	4	5	6	7
27.	I'm not much good at problem solving.	1	2	3	4	5	6	7
28.	I have a lot of intellectual curiosity.	1	2	3	4	5	6	7
29.	I am not very original in my ideas, thoughts, and actions.	1	2	3	4	5	6	7
30.	I am an imaginative person.	1	2	3	4	5	6	7
31.	I would have no interest in being an inventor.	1	2	3	4	5	6	7
32.	I can often see better ways of doing routine tasks.	1	2	3	4	5	6	7
33.	I find many mathematical problems interesting and challenging.	1	2	3	4	5	6	7
34.	I have hesitated to take courses that involve mathematics.	1	2	3	4	5	6	7
35.	I have generally done better in mathematics courses than other courses.	1	2	3	4	5	6	7
36.	Mathematics makes me feel inadequate.	1	2	3	4	5	6	7
37.	I am quite good at mathematics.	1	2	3	4	5	6	7
38.	I have trouble understanding anything that is based upon mathematics.	1	2	3	4	5	6	7
39.	I have always done well in mathematics classes.	1	2	3	4	5	6	7
40.	I never do well on tests that require mathematical reasoning.	1	2	3	4	5	6	7
41.	At school, my friends always come to me for help in mathematics.	1	2	3	4	5	6	7
42.	I have never been very excited about mathematics.	1	2	3	4	5	6	7
43.	I have trouble expressing myself when trying to write something.	1	2	3	4	5	6	7
44.	I can write effectively.	1	2	3	4	5	6	7
45.	I have a poor vocabulary.	1	2	3	4	5	6	7
46.	I am an avid reader.	1	2	3	4	5	6	7
47.	I do not do well on tests that require a lot of verbal reasoning ability.	1	2	3	4	5	6	7

48.	Relative to most people, my verbal skills are quite good.	1	2	3	4	5	6	7
49.	I often have to read things several times before I understand them.	1	2	3	4	5	6	7
50.	I am good at expressing myself.	1	2	3	4	5	6	7
51.	In school I had more trouble learning to read than most other students.	1	2	3	4	5	6	7
52.	I have good reading comprehension.	1	2	3	4	5	6	7

Thank you for your time and cooperation!

Appendix D. Interview Protocol

Interview Protocol Form

(Homeroom teachers)

Interviewee: _____

Interviewer: _____

Protocol Sections:

A: Introductory Protocol

B: Interview Background

C: Interview Questions

D: Interview Wrap Up

E: Post Interview Comments and/or Observations

A: Introductory Protocol

Hello _____. Thanks for joining me today. My name is _____ and I will be conducting the interview today. How are you going today? [fill with appropriate response]

You have been selected to speak with me today because you wished to share what you know about teacher expectations and emotions. Our research project as a whole focuses on the relations between these two factors in the context of homeroom teachers, and how such interactions might affect your teaching practices. This research project will also look at students' self-concepts and how these are related to teacher expectations. Today's interview does not aim to evaluate your views or experiences. Rather, we are trying to learn more about how you believe that your expectations are related to your emotions, and to investigate how such relations predict your practice.

To facilitate my note-taking, I would like to audio tape our conversation today. For your information, only researchers on the project will be privy to the recordings which will be eventually destroyed after they are transcribed and the project has been completed. Please sign the consent form [if they have not already done so]. Essentially, this form states that: (1) all information will be held confidential, (2) your participation is voluntary and you may stop at any time without giving a reason, and (3) your interview will be audio-recorded and transcribed. Thank you for your agreeing to participate.

I have planned this interview to last no longer than one hour. During this time, I have several questions that I would like to cover. If time begins to run short, it may be necessary to interrupt you in order to push ahead and complete the questioning.

B: Interviewee Background

Tell me more about yourself (year level, degree, major, ethnicity, etc). How long have you been a high school homeroom teacher? What kind of grade and subjects do you currently teach?

C: Interview Questions

Interview Questions

Questions
Semistructured Questions
1. Can you please describe in five words the most frequent emotions you have experienced as an HT?
2. In what ways, if any, do you believe that your emotions are related to your expectations of students in your role as an HT?
3. How do you think your emotions influence your teaching practices in class?
4. How do you think your expectations of students influence your teaching practices in class?
5. In what ways, if any, do you believe that you can deal with your negative emotions effectively in class?
Scenario-Based Questions
1. Improper behaviours of students Please imagine a scenario where you are informed that some of your students have cheated in their exams. But the subject they cheated on was not the one that you teach. This means that you need to address this issue together with your colleagues (e.g., the subject teachers, the school leader….). How do you think this will affect you? How will you respond to this issue?
2. Pressures from parents Please imagine a scenario where some parents of the students in your homeroom class blame you for the regressions in learning of their children. This means that the parents doubt the quality of your instruction and attribute the failure of the students to you. How do you think this will affect you? How will you respond to this issue?

3. **Progress of students**

   Please imagine a scenario where some students in your homeroom class have made impressive progress in the final exam, especially the subject taught by you. How do you think this will affect you? How will you respond to this issue?

4. **Disengagement of students**

   Please imagine a scenario where students in your homeroom class are relatively less active during class time, especially in the subject taught by you. For example, they are not engaged in the group discussions or are unresponsive in your class. How do you think this will affect you? How will you respond to this issue?

D: Interview Wrap Up

Is there anything else you would like to add?

Do you have any questions?

Your Participant Information Sheet includes all the relevant information regarding the project as well as our contact details should you have any further queries.

On behalf of the research team, I would like to thank you for participating in this research project. We really appreciate it.

E: Post Interview Comments and/or Observations:
