Teachers Matter

Expectation Effects in Foreign Language Classrooms at University

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Abstract

The current research explored normative teacher expectation effects in first-year foreign language classrooms in tertiary settings. Mixed methodology was adopted in this research to survey 4,617 first-year undergraduate students (116 classes) and their 50 teachers from 2 universities in China. Teacher expectations, student prior achievement, and achievement at the end of the school year were collected. Teacher interviews and student focus groups were conducted. Groups of teachers who held normatively high or low expectations for all students in multiple classes, despite similar student distribution and similar student prior achievement for each class, were identified at the beginning of the school year. At the end of the school year, the overall student achievement was found to vary in line with teachers' normative expectations. Further findings indicated that teachers with different normative expectations differed in their instructional practice and in the type of classroom climate they created. The students were able to perceive their teachers' expectations and they reacted to them in ways that depended on whether their teachers' expectations were high or low. Differing instructional practices and classroom climates in the different teacher expectation groups seemed to result in differing learning opportunities and experiences for students, which suggested possible mechanisms for normative teacher expectation effects. In addition, results showed that classroom climate factors moderated normative teacher expectation effects, and teacher expectation groups also played a part in the moderation effects of classroom climate factors. The findings indicate that teacher beliefs and practices played a more decisive role in forming expectations and generating expectancy effects than students did. A model is proposed which suggests that teachers' normative expectations can have effects on instructional practice, classroom climate, learning opportunities and experiences, and student academic outcomes. Implications for teacher professional development and educational practice are also discussed.

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Chapter 1 Introduction

Since the middle of last century, teacher expectation effects have attracted great interest from a large number of researchers. Rooted in the sociological concept of self-fulfilling prophecy effects (Merton, 1948), Rosenthal and Jacobson's classic Pygmalion experiment (1968) ignited vigorous and fruitful research about self-fulfilling effects of teacher expectations in the educational realm. Abundant studies have investigated and documented whether, how, and to what degree teacher expectations may influence student social and academic outcomes.

Teacher Expectation Effects in Tertiary Settings

Generally, most previous research has concentrated on teacher expectation effects in relation to student learning at elementary and secondary levels (e.g., Babad, Inbar, & Rosenthal, 1982a; Brophy & Good, 1974; Rosenthal, 1968; Rubie-Davies, 2007, 2010; Sorhagen, 2013; Weinstein & McKown, 1998), but little about teacher expectation effects has been located in tertiary settings. One possible reason may be because it has been widely argued and acknowledged that younger students are more likely to be affected by teacher expectations than older ones (see Brophy, 1983; Jussim, Smith, Madon, & Palumbo, 1998 for reviews). Although it seems that younger students are more likely to be dependent on the teacher for information and more likely to behave in accordance with the teacher's particular expectations, some researchers have suggested that situational or contextual factors should be considered as well (Jussim et al., 1998; Raudenbush, 1984). As previous research (e.g., Eden &

Shani, 1982; Jussim et al., 1998) has stated, older students and adults are also vulnerable to expectancy effects in new situations, for example in transition from elementary school to middle school or from middle school to secondary school. Hence, it can be assumed that first-year undergraduate students, who are in transition from secondary to tertiary schools, may feel less self-aware, less self-confident, more dependent on teachers' affective support, and thus may become susceptible to teacher expectation effects. To the author's knowledge, there are only three studies of teacher expectation effects in tertiary settings (Haynes & Johnson, 1983; Kim, 2003; Minner & Prater, 1984). However none of these three studies has conducted intensive investigations. For example, Haynes and Johnson's study (1983) manipulated teacher expectations in a tertiary setting by providing lists purporting to indicate students who were likely to improve in performance. Their study had limited implications for teacher–student interactions in a naturalistic classroom. Minner and Prater (1984) documented college teachers' biased expectations of students with learning disabilities, which merely indicated the influence of student labelling information on teacher expectations. A more recent thesis by Kim (2003) discussed how the cultural backgrounds of university teachers and students may affect the formation and interpretations of their expectations, but went no further than the discussion. Tertiary education is quite different from elementary and secondary schooling in various ways, such as the teacher–student interactions, instructional practices and assessments that occur. Further explorations are needed to investigate whether teacher expectations are

related to student academic outcomes at university, how university teachers form their expectations if they spend less time on dyadic interactions with students, in what ways university teachers communicate their expectations when addressing lectures to the overall class, in what ways university students perceive and interpret teacher expectations, and whether university students, as independent grown-ups, conform to teacher expectations. Teacher expectation effects at university or college have long been neglected by the expectancy field; it is now time for a systematic exploration of the relationships between teacher expectations and student outcomes at the tertiary level.

Teacher Expectation Effects in a Foreign Language Curriculum

Meanwhile, while previous research has studied teacher expectation effects in specific curriculum areas such as reading (Rubie-Davies, 2008a), mathematics (Riegle-Crumb & Humphries, 2012), and physical education (Babad et al., 1982a), the only empirical study that could be located that explores expectation effects in learning foreign languages is a study by Taguchi (2006). This study investigated the relationship between student motivation and students' foreign language learning; however the results showed that the most powerful predictors of language gains were teachers' implicit beliefs about their students' capacities, and their expectations of their students' achievement. This study had a limited sample size: four teachers and their 61 students, which obviously could not provide sufficient evidence of teacher expectation effects in the specific curriculum of foreign language. Moreover, teacher

expectation effects in foreign language classrooms are highly probable, theoretically speaking. One reason may be the pedagogical characteristics of the foreign language curriculum where instructional practice mainly consists of dialogue, conversation, or discussion. There are more frequent and direct interactions between the teacher and students than in other curriculum areas where lecturing and listening are the major classroom activities (Johnson, 2008). Previous research in the expectancy area (e.g., Babad, 2009; Babad, Bernieri, & Rosenthal, 1989a) has found that teachers may demonstrate substantial leakage effects; that is, a discrepancy between messages transmitted through different channels, suggesting that more positive expectations may be transmitted in more controllable channels like verbal content but more negative expectations may be leaked in less controllable channels such as nonverbal behaviours. Although teachers believe that they can control their affective transmissions and conceal their feelings from their students, students' perceptions of teachers' expectancy-related behaviours appear to be accurate (Babad, Bernieri, & Rosenthal, 1991), even in a cross-cultural, foreign language context (Babad & Taylor, 1992). Hence, it can be assumed that foreign language teachers are perhaps less able to hide their expectations and beliefs towards their students during their frequent and direct interaction with their students, while students could perceive teachers' expectation cues more easily than they do in other learning contexts. These identified gaps in the literature indicate a need for an intensive investigation into teacher expectation effects in foreign language classrooms.

More Generalised Teacher Expectation Effects

There are also other aspects of teacher expectancy effects that need further exploration. Previous research has predominantly concentrated on teacher expectation effects on individual students (e.g., Babad et al., 1982a; de Boer, Bosker, & van der Werf, 2010; Rosenthal & Jacobson, 1968). Such research implies that teacher expectations are developed and expectancy effects occur because of individual differences in students; that is, teachers behave differently towards individual students whom they hold high or low expectations for, and consequently, students achieve diversely. In comparison, very few studies have investigated more generalised teacher expectation effects other than those involving dyadic interactions. It has been proposed that generalised teacher expectation effects may function for the overall class (e.g., Brophy, 1983), but so far only a few studies have offered empirical evidence of whole-class expectancy effects (e.g., Rubie-Davies, 2007; Rubie-Davies, 2008a). However, the expectations teachers have for their classes may have more significance for student achievement, probably because students spend more time as a part of the classroom than they do in one-on-one engagement with the teacher (Blatchford, Burke, Farquhar, Plewis, & Tizard, 1989). Thus, it can be further assumed that generalised teacher expectation effects, especially in higher education, are more salient, because university teachers are more likely to adopt whole-class instructional methods and minimise individual differential treatment to different students. Furthermore, recent studies have increasingly shifted the focus to the

individual differences in the teacher, suggesting that teachers with particular characteristics may generate stronger expectancy effects on their students than teachers without such characteristics (e.g., Babad et al., 1982a; Brattesani, Weinstein, & Marshall, 1984; Rubie-Davies, 2008a). Based on the argument that teacher expectation effects are related more to teacher variables than to student characteristics, it could be assumed that teachers with different characteristics may generate variable expectancy effects on all their students. Thus, teacher expectations could extend beyond just one class to multiple classes. If so, evidence is needed to demonstrate the bases on which teachers form their normative expectations for all their students; the ways teachers communicate their normative expectations; and whether overall student achievement is related significantly to the teacher's normative expectations. All these questions await careful exploration and possible explanations.

There is also a paucity of research on classroom climate in relation to teacher expectancy effects. Researchers stated and acknowledged the importance of classroom climate in teacher expectation effects about 40 years ago. Rosenthal proposed the four-factor theory (Rosenthal, 1974) and later modified it to a two-factor theory (Harris & Rosenthal, 1985), but both studies highlighted the significance of the classroom climate in mediating teacher expectations for student performance. A plausible explanation for the mediating function of classroom climate may be that it helps to communicate teacher expectation cues. Previous empirical studies have focused on examining only one particular dimension of classroom climate, for

example, differential treatment (Brattesani et al., 1984) and learner autonomy (Trouilloud, Sarrazin, Bressoux, & Bois, 2006). In addition, the function of classroom climate in class-level teacher expectation effects has not been fully explored yet. Rubie-Davies (2007, 2008a) explored the mediating role of classroom climate in her work, but she placed greater emphasis on the instructional environment, and the socioemotional environment was not statistically measured. Furthermore, there has been no previous study to investigate the moderating role of classroom climate in teacher expectation effects. Classroom climate may moderate the magnitude of teacher expectation effects and the strength of teacher expectancies on student performance, because changes in the classroom climate may influence the salience of teacher expectations and students' reliance on teachers. To better understand normative teacher expectation effects, the current research takes an intensive and comprehensive examination of classroom climate as both a mediator and a moderator. Classroom climate, as shared by all the students in the classroom, is an integration of the social and academic environment, and a specific classroom climate may mediate and modify the relationship between normative teacher expectancies and student outcomes.

Teacher Expectancy Research in China

Although the self-fulfilling effects of teacher expectations have been extensively explored by the western academic world for a long time, there has been no large-scale empirical research about such effects in China. So far the related studies in China

have mostly been literature reviews and small-scale replications. Traditionally, Chinese students are obedient to their teachers (Ho & Crookall, 1995; Ma & Ma, 2012; Qi, 2011). Therefore the influence of teachers on students may be more powerful than in most other countries. It can be anticipated that teacher expectation effects would be probable in the Chinese education system but empirical evidence is needed.

Research Aims

The current research was designed to explore normative teacher expectation effects in foreign language classrooms at university. The major research aim was to identify normative teacher expectation effects in College English classrooms in China, propose possible mechanisms for such expectancy effects, and investigate the functions of classroom climate in normative teacher expectation effects.

The research comprised four studies. Study 1 presents the major findings of the current research, which indentifies normative teacher expectation effects in the given context. Based on the results of Study 1, Study 2, 3 and 4 are designed to probe into the expectancy effects mechanisms. The four studies vary in their contribution: Study 1 is of the greatest significance and lays the foundation for further exploration, while the subsequent three studies provide exploratory information to complete the understanding of Study 1.

Study 1 was designed to investigate firstly whether class-level teacher expectations were related to whole-class achievement in the College English course. The hypothesis was that class-level teacher expectation effects could be identified for

students who learn English as a foreign language at universities. Further, the study investigated teachers' expectations for multiple classes, and sought evidence of normative teacher expectation effects for all the students in different classes, which could suggest that teacher expectations may be more likely to be a function of teacher characteristics, in spite of student variables. That is, some teachers may hold normatively high expectations for all their students and across multiple classes, while some may hold normatively low expectations. In addition, normative teacher expectations could be related to the overall student achievement.

Study 2 continued to probe the mediating process of normative teacher expectation effects. It examined how normative teacher expectations are formed, transmitted, perceived and responded to. Teachers with normatively high, medium, and low expectations and their students were interviewed, and the hypothesis was that teachers with differing normative expectations would vary in their teacher beliefs, teaching practice, and interactions with their students. Any such differences may contribute to understandings of how normative teacher expectation effects are mediated.

Study 3 focused on the mediating role of classroom climate in normative teacher expectation effects. It investigated multiple dimensions of the social and instructional environment in classrooms with varying normative teacher expectations. Classroom climate has been proposed as an important mediator in teacher expectation effects (eg., Rosenthal, 1974) but not fully studied; hence, Study 3 was a comprehensive

investigation about the personal relationships among all the participants in the classroom and the ecology of the learning environment. The hypothesis was that classroom climate may vary in relation to normative teacher expectations, and thus these differences may suggest a potential mechanism for the mediating process of normative teacher expectation effects.

Study 4 explored the moderating role of classroom climate. It examined the influence of the classroom climate on the magnitude of normative teacher expectation effects. The hypothesis was that with certain classroom climates, teacher expectation cues will be more salient, students will be more compliant, and consequently more powerful teacher expectation effects will occur. Moreover, the function of classroom climate may vary depending on normative teacher expectations, suggesting that the moderating effects of a certain classroom climate dimension may work for particular teachers only.

Significance of the Research

The current research is significant in several ways. Firstly, it is the first attempt to intensively investigate teacher expectation effects in the specific domain of foreign language teaching and learning. Little previous research has related the two realms, and there is good reason to believe that a cross-disciplinary study would expand our understanding of teacher expectation effects. Foreign language learning is an international issue which undoubtedly is essential for globalisation. Studies of foreign language learning indicate that such learning is not only a cognitive process, but also

a social construct constrained by the conventions of schooling (VanPatten & Lee, 1990). Affective variables are of vital importance in learning foreign languages—students often suffer from negative psychological states, such as tension, anxiety, lack of confidence, and lack of motivation, which can hinder their academic attainment considerably (Estarellas, 1966; Ortega, 2009). Hence, teacher expectations in foreign language classrooms, which may be related closely to student emotional states, are worthy of further investigation. Potential outcomes of exploring self-fulfilling effects of teacher expectations in the context of foreign language teaching and learning are to identify implications for affective strategies of foreign language instruction, and hence to build a positive social environment for classroom communities. Favourable teacher expectations may help students to learn actively and efficiently (Brophy & Good, 1974), which could increase student academic performance in foreign language classrooms.

Secondly, the current research targets undergraduate students at university, which is also a pioneering attempt in the related field, because most previous studies have concentrated on students at elementary and secondary levels. The research on students who enter tertiary level education for the first year will add weight to the argument that the new situation factor may magnify teacher expectation effects on older students and even adults. Hopefully, it may help researchers in the related field to attach more importance to studying and employing situational or ecological factors (Weinstein, 2002). In addition, identifying teacher expectation effects at college or

university may have some implications for tertiary educational practice. Understanding of teacher expectation effects in tertiary settings may help to create better learning experiences for students and enhance their achievement, especially for students who are in transition from secondary schools to universities.

Thirdly, the current research is the first large-scale empirical study of teacher expectancy effects conducted in China. It is of great significance to explore the Chinese version of how teacher expectations are related to student academic achievement which may contribute to a broader understanding of the mechanism. The findings have implications for enhancing Chinese student learning and provide new evidence of teacher expectation effects in different cultural contexts.

Fourthly, the research provides evidence of the direction of teacher expectation effects. If different teachers develop different expectations at the beginning of the school year for students with similar characteristics, and teachers tend to have normatively high or low expectations for all their students across different classes, such findings would suggest that teachers' normative expectations are more closely related to their personal characteristics, teacher beliefs, and self-efficacy than to student characteristics. In addition, if students' later performance confirms teacher initial expectations despite their similar prior achievement and demographic distribution, the findings would add weight to the argument that teacher expectation effects are more likely to be in the direction from teachers to students, rather than the opposite.

Further, the identification of teachers who have normatively high and low expectations would also have some implications for adjusting instructional practice and promoting student achievement. Low expectation teachers could be assisted to develop their pedagogical beliefs and optimise their teaching strategies. One intervention study (Rubie-Davies, 2014) has shown that professional development can provide low expectation teachers with alternative instructional practices that result in significant gains for their students. Research on normative teacher expectation effects may contribute to a deeper understanding of relevant teacher practices and lead to the improved performance of all students.

Finally, the current research is dedicated to identifying the mediating and moderating role of classroom climate in normative teacher expectation effects. According to the classic reference on the mediator–moderator variable distinction (Baron & Kenny, 1986), the function of a mediator is to "account for the relation between the predictor and the criterion" (p. 1176), explaining how or why such effects occur; while a moderator is a variable that "affects the direction and/or strength of the relation between an independent variable and dependent variable" (p. 1174). To be specific, the current research explores if classroom climate may work as a possible mechanism for teacher expectation effects, suggesting the way in which teachers' expectations are self-fulfilled. In addition, investigation is conducted to examine the moderation effects of classroom climate, explaining teacher expectation effects may be more powerful in some classrooms than in others. Studying climate as mediators

and moderators will contribute in a practical way to generating favourable teacher expectation effects, which could help to develop a positive cycle of teacher–student interactions and enhance academic gains of all students.

To sum up, the research explored teacher expectation effects in a new context, which may provide new evidence for the generality of expectancy theory. Moreover, the research may contribute to a deeper understanding of teacher and contextual factors in expectancy effects, and lead to better teacher–student interactions and higher achievement of all students.

Design of the Research

Approval to undertake the current research was obtained from the University of Auckland Human Subjects Ethics Committee which complies with a strict code of ethics pertaining to the conducting of research involving human participants. Copies of all participant information sheets and consent forms are in Appendix A.

The research comprised four studies. Study 1 was designed to survey teachers' expectations for all their students in learning English as a foreign language and to investigate the possible relationship between their expectations and student later achievement. The study identified three groups of teachers—those who held normatively high, medium and low expectations for their students at the beginning of the school year. Students' achievement at the beginning and end of the school year was aggregated by teachers and then compared depending on the three teacher groups, to see if there were between-group differences.

The three teacher groups indentified in Study 1 formed the basis of the second study which looked closely at the classroom interactions of these separate groups of teachers. Study 2 used teacher interviews and student focus groups to explore how teachers within the three separate groups developed and transmitted their normative expectations, and how their students reacted; this was an attempt to unravel the possible mediating process of normative teacher expectation effects.

Study 3 used standard structured interviews and focus groups with each group of teachers and their students identified in Study 1 to gain an understanding of the classroom climate that these different teachers created for the social and instructional environment for student learning. In Study 3, the classroom climate was intensively surveyed to examine which dimensions of classroom climate could be identified as mediators of normative teacher expectation effects.

Study 4 investigated the moderation effects of classroom climate on the relationship between normative teacher expectations and student achievement. It attempted to find out in which climate normative teacher expectation effects may be more powerful.

The next chapter is a review of the literature on teacher expectations and teacher expectation effects. It presents an overview of the history of the research mainstream about teacher expectation effects. The chapter begins with the self-fulfilling prophecy effects identified within sociology and the Pygmalion study (Rosenthal & Jacobson, 1968) which resulted in vigorous and fruitful research about teacher expectation

effects within educational psychology. Following a discussion of the meta-analysis which provided evidence of the existence of teacher expectation effects (see Rosenthal, 1985 for a review), there is a review of the research related to the magnitude of such effects, including teacher, student and context moderators which may magnify or reduce the power of teacher expectation effects. Then the literature review summarises some underlying models of teacher expectation effects, and reviews the major steps in the mediating mechanism: formation of teacher expectations, transmission of teacher expectations, and student reactions. The final section of the literature review considers research about generalised teacher expectation effects, including teachers' class-level expectations and their relationship to overall class achievement, which functioned as the theoretical and empirical bases for the current research.

The subsequent four chapters present the four studies previously described. The final chapter provides a discussion of the educational significance and implications of the four studies as a whole.

Chapter 2 Literature Review

Self-Fulfilling Prophecy Effects

The concept of the self-fulfilling prophecy was first established and developed in the field of sociology. In the early work, Merton (1948) illustrated this sociological phenomenon to demonstrate the confirmation of the originally false expectation with examples such as that of an imaginary bank. In this example, the Last National Bank was a flourishing institution, but a rumour of insolvency began to spread suddenly. More and more clients queued up to withdraw their money so that the bank consequently did collapse, which indicated that the originally false belief of the bank failure became true (Merton, 1948). Another example described the beliefs of white citizens that "Negroes" were strike-breakers. Merton (1948) stated:

Our unionist fails to see, of course, that he and his kind have

produced the very "facts" which he observes. For by defining the

situation in which Negroes are held to be incorrigibly at odds with

principles of unionism and by excluding Negroes from unions, he

invited a series of consequences which indeed made it difficult if not

impossible for many Negroes to avoid the role of scab. Out of work

after World War I, and kept out of unions, thousands of Negroes

could not resist strikebound employers who held a door invitingly

open upon a world from which they were otherwise excluded. (p.

197)

Merton (1948) defined the self-fulfilling prophecy as a false definition of the

situation evoking a new behaviour which makes the originally false conception come

true. He argued its relevance to many social phenomena and processes as diverse as

economy, national defence, social prejudice and discrimination. The definition

underscored the three key components in the processes underlying self-fulfilling

prophecies: the beliefs about a situation, the behaviours caused by the beliefs, and the

confirming outcomes.

Self-fulfilling prophecies did not receive empirical and systematic exploration

until Rosenthal's work (1963, 1966) on unconscious experimenter bias. In his work,

Rosenthal recorded a series of experiments with animals, mostly laboratory rats,

which showed that when the experimenter believed that the subject animals were

intelligent, the animals did learn more quickly and performed better than the other

animals in the same experiment deemed to be unintelligent. The self-fulfilling

prophecy was illustrated by experimenter effects in which researchers sometimes

acted in unconscious and subtle ways that evoked behaviours in the subjects that

consequently increased the researchers' probability of verifying their initial

hypotheses (Rosenthal, 1963, 1966). It was the Pygmalion experiment conducted by

Rosenthal and Jacobson (1968) that introduced the self-fulfilling prophecy effect of

interpersonal expectations to the education realm. With the publication of *Pygmalion*

in the Classroom (Rosenthal & Jacobson, 1968), the self-fulfilling prophecy theory

was acknowledged within educational psychology, and hence, self-fulfilling prophecy

effects of teacher expectations have been studied by researchers for several decades.

Pygmalion Experiment

In the classic Pygmalion experiment, teachers in an elementary school were

induced to believe that certain students in their classes were "late bloomers" whose

performance would increase dramatically by the end of the school year (Rosenthal &

Jacobson, 1968). However, the fact was that those students had been selected

randomly and there were no differences between the "late bloomers" (about 20% of

the total children) and the other 80% of the students. Hence, teachers appeared to

hold false expectations for the "late bloomers" and consequently one year later and

two years later, when the researchers administered the TOGA (Test of General

Ability), a nonverbal intelligence test, the "late bloomers" indeed showed greater

gains in IQ than control group students. The results also showed that the teachers

were even hostile towards the control group students who gained unexpected

intellectual growth. As the researchers (Rosenthal & Jacobson, 1968) put it, "The

difference between the children earmarked for intellectual growth and the

undesignated control children was in the mind of the teacher" (p. 70). With

manipulated differing teacher expectations, the students exhibited different outcomes

accordingly, and the unexpected gain of some control group students triggered

teachers' negative responses rather than the behaviours being welcomed and supported. It seemed that teacher expectations could be a major contributor to the student achievement gap. The authors concluded that teacher expectation effects caused teachers' initially inaccurate expectations to be confirmed. The causal inferences made were that (a) the treatment influenced the teacher' expectancies (not measured) for the experimental group by setting the expectancies higher than they would have been, which in turn (b) influenced the teacher behaviour (not measured), which (c) influenced the students' capacity and thus the higher IQ test scores (Dusek, Hall, & Meyer, 1985).

The Pygmalion study provoked extremely controversial reactions. Advocates accepted the findings enthusiastically and praised the study as the key to eliminating educational and social inequalities (see Spitz, 1999; Wineburg, 1987 for reviews). The Pygmalion study was frequently cited in some newspapers and textbooks in support of the oversimplified argument that all students would begin to achieve at high levels as soon as teachers were trained to have high expectations for them. Furthermore, the enthusiasts believed that the self-fulfilling process occurred not only in school classrooms, but also in the workplace, in government, and so on, which was capable of accounting for the long-term entrenchment of social injustices (Jussim & Harber, 2005; Spitz, 1999; Wineburg, 1987). The study was even cited in American courts. In several well-known cases, the plaintiffs and defendants drew on the Pygmalion experiment in their arguments, which resulted in the abolition of the

school tracking programme in some places, the prohibition of the use of intelligence

tests to identify students with special education needs, and the establishment of better

racial balance in schools (Spitz, 1999). These arguments, to some extent,

misinterpreted or exaggerated the Pygmalion experiment. For instance, the study only

investigated the manipulation of positive expectations of teachers, and the effects of

negative teacher expectations still remained unexplored. Additionally, the effects

found by the Pygmalion study were not as powerful as claimed. Furthermore, the

researchers did not include racial or social stereotype factors in their experimental

design (Jussim et al., 1998).

Not everyone, however, accepted the Pygmalion experiment uncritically.

Among some researchers studying educational psychology and intelligence, the

experiment generated a storm of criticism (see Spitz, 1999 for a review). Of the

unfavourable reviews, two in particular were notably critical. The first, by Thorndike

(1968), questioned the validity of the TOGA measure, and stated that the data

indicated flaws with the test and/or the testing procedure. Thorndike (1968)

commented that the children with a mean Reasoning IQ of 31 in the pre-test "just

barely appear to make the grade as imbeciles" (p. 709). On the other hand, the post-

test Reasoning IQ of 150 for the six "late bloomers", according to Thorndike,

suggested that they would have obtained perfect scores in the test, which seemed

empirically unlikely. The other extremely critical review was by Snow and his

colleague (Elashoff & Snow, 1971; Snow, 1969). They argued that the Pygmalion

study suffered from seriously problematic measurement and inadequate data analysis (Elashoff & Snow, 1971; Snow, 1969). Snow (1969) pointed out a weakness of the test used in the experiment, TOGA, which "does not have adequate norms for the youngest children, especially for children from lower socioeconomic backgrounds" (p. 198). He also provided examples of pre-test and post-test scores that seemed very improbable, as Thorndike (1968) had done. Furthermore, Snow and his colleague remarked that the interpretation of the experimental results was inaccurate, because the significant differences only existed in first and second grades instead of in all the experimental groups (Elashoff & Snow, 1971).

The criticisms of other researchers about the Pygmalion study included that: (a) the experiment only induced and investigated positive teacher expectations, so it could not be reasonably assumed that negative teacher expectation effects would mirror positive ones (Spitz, 1999; Wineburg, 1987); (b) the experiment did not probe into the mediation process of teacher expectations, so it lacked arguments for how teacher expectations would be communicated to students (Brophy & Good, 1974); (c) the experiment equated IQ scores with intelligence growth and academic achievement, and researchers pointed out such equivalence could not be acknowledged unquestioningly (Elashoff & Snow, 1971; Spitz, 1999); and (d) the experiment manipulated teachers' expectations and assigned students to experimental or control groups, so the findings of the experimentally induced teacher expectations could not be applicable to natural classroom settings (Dusek et al., 1985).

Immediately following the Pygmalion experiment, researchers completed a large number of replication studies, trying to identify teacher expectation effects on student IQ, academic achievement, and other outcomes in both laboratory settings and real classrooms (see reviews by Brophy & Good, 1974; Hall & Merkel, 1985; Spitz, 1999). Those studies investigated teachers' expectations which were either experimentally induced (e.g., Fielder, Cohen, & Feeney, 1971; Fleming & Anttonen, 1971; Pellegrini & Hicks, 1972) or naturalistically formed (e.g., Brophy & Good, 1970; Doyle, Hancock, & Kifer, 1972; Palardy, 1969); however, there were still controversial results and diverse interpretations about self-fulfilling effects of teacher expectations on students. The debate came to an end, as Rosenthal's series of meta-analyses finally demonstrated the existence of self-fulfilling prophecy effects of teacher expectations (Rosenthal, 1968, 1974, 1976, 1985; Rosenthal & Rubin, 1971; Rosenthal & Rubin, 1978). The meta-analyses examined studies of interpersonal expectancy effects in laboratory and everyday situations, and revealed that overall 34–40% of the previous expectation effect studies had reported significant self-fulfilling prophecy effects, with the percentage of positive results being slightly higher in the classroom studies. Raudenbush (1984) later also did a meta-analysis to examine the variability in the outcomes of experiments testing the effects of teacher expectancy on student IQ. The findings showed that teacher expectation effects were significant but the time of year that a study was conducted would moderate expectancy effects (Raudenbush, 1984). When the manipulation of teacher expectations took place

within the first week of the year, self-fulfilling effects on student IQ were more pronounced ($r = .15$) than the overall effect size of .11. Raudenbush's work (1984) provided evidence of teacher expectation effects and accounted for the failures of some replication studies which did not get statistically significant effects of teacher expectations. He showed that where researchers tried to manipulate teachers' expectations more than two weeks into the academic year, their attempts were unsuccessful. These data and other reviews (e.g., Brophy, 1983; Jussim & Harber, 2005) have supported the existence of teacher expectation effects and the concept that teachers' initial expectations increase the probability of students conforming to meet the teachers' perceptions and predictions. Further the substantial evidence from multitudes of studies showing the existence of teacher expectations and teacher expectation effects, renders any debate about their existence redundant.

Teacher Expectation Effects

Teacher expectations are inferences that teachers make about current and future academic achievement and general classroom behaviour of students (Brophy, 1998). Teachers form their expectations towards students on the basis of teacher beliefs, teacher behaviours and student previous outcomes (Good & Brophy, 2009). Teacher expectations may predict students' later outcomes. There are three explanations to account for the confirmation of teacher expectations—self-fulfilling prophecy effects, perceptual biases, and accuracy (Jussim, 1989; Smith et al., 1998).

Self-fulfilling prophecy effects. Self-fulfilling prophecy effects of teacher expectations may function when teachers' inaccurate expectations are maintained despite contradictory evidence (Brophy, 1983), and, consequently, cause changes in student performance in accordance with teachers' initial expectations. Hence whether teacher expectations may exert self-fulfilling prophecy effects depends to a large extent on the rigidity of teacher expectations rather than the accuracy.

Self-fulfilling prophecy effects include three major subtypes: Golem effects; Galatea effects (Babad et al., 1982a), and sustaining expectation effects. Golem effects are the negative effect on students' performance that results from low teacher expectations. Galatea effects occur when high teacher expectations are realised by students' high achievement. Sustaining expectation effects occur when teachers respond on the basis of their previously established expectations for students rather than future changes in student performance (Cooper & Good, 1983). All three expectation effects show the impact of initially inaccurate teacher expectations which are confirmed by student achievement later. The difference between these three subtypes is that Golem effects and Galatea effects create changes in student achievement, while sustaining expectation effects impede changes.

Perceptual biases. Perceptual biases occur when a perceiver's beliefs influence their evaluation of target behaviour. For example, a teacher may believe that a particular student is especially talented. If the teacher evaluates this student

more favourably than other students of comparable talent, perceptual bias has

occurred (Smith et al., 1998).

Accuracy. Perceivers' beliefs can also correspond to reality because they are

accurate. In terms of teacher expectation effects, predictive accuracy refers to

teachers successfully predicting student achievement without influencing target

behaviour (Jussim, 1991; Smith et al., 1998). Some researchers have argued that in

most cases teachers can accurately predict student achievement (Brophy, 1983;

Jussim, 1989; Jussim, Eccles, & Madon, 1996).

Though it has been acknowledged that self-fulfilling effects of teacher

expectations do exist, there have been concerns about the strength of teacher

expectation effects in naturalistic classrooms. Some research argued that the

magnitude of teacher expectation effects was relatively small. For example, Brophy

and Good (1974) reported that the self-fulfilling effects of teacher expectations

contributed on average to only 5–10% differences per student on academic

achievement, and Cooper and Good also stated that there was relatively little evidence

in favour of sizeable self-fulfilling effects of teacher expectations (Cooper, 1979;

Cooper & Good, 1983). However, researchers have also contended that stronger

teacher expectation effects may be found in particular classrooms (e.g., Raudenbush,

1984), suggesting that the magnitude of teacher expectation effects varied by different

teachers, students, classrooms or other circumstances. Previous findings showed that

individual differences in teachers (e.g., Rubie-Davies, 2008a), students (e.g., Hinnant,

O'Brien, & Ghazarian, 2009) and contexts (e.g., Weinstein & McKown, 1998) may strengthen or weaken teacher expectation effects to a significant degree, which indicated that the self-fulfilling effects of teacher expectations may be moderated by other variables.

Student Moderators of Teacher Expectations Effects

As mentioned above, the self-fulfilling effects of teacher expectations may be relatively small, but that does not necessarily mean that teacher expectations never have powerful effects on students. The search for moderators is to investigate the characteristics of students, teachers and situations that may exert significantly stronger teacher expectation effects.

In terms of student moderators, findings have shown that students with specific characteristics are more susceptible to teacher expectation effects. These characteristics include student individual differences in race, socioeconomic status, gender, age, prior achievement and so on.

Student ethnic group. Jussim and colleagues (1996) found that teacher expectations influenced the standardised test scores of African Americans ($\beta = .37$) more strongly than they influenced the scores of European American students ($\beta = .14$). Steele (1992, 2003) also conducted studies primarily on African American students and argued that they were more susceptible to teacher expectation effects than their European American counterparts. McKown and Weinstein (2002, 2003) investigated the role of student race as a moderator of the relation between teacher

expectations and student mathematics and reading achievement and they found that

African American children were more vulnerable to stereotype threat and teacher

expectation effects, especially negative expectancy effects, than other student groups,

for instance Caucasian children. In New Zealand, researchers (Rubie-Davies, Hattie,

& Hamilton, 2006) have also reported that Māori students were more subject to

unfavourable teacher expectation effects than other ethnic groups. More recently, one

study about children from kindergarten to sixth grade in Europe (Speybroeck et al.,

2012) documented differing associations between teacher expectations and student

mathematics achievement for ethnic minority and majority children, and the findings

showed teacher expectation effects seemed to be somewhat stronger for ethnic

majority students ($\beta = .16$) than for ethnic minority students ($\beta = .11$). In some cases,

researchers have found an interacting pattern of student ethnicity and gender

difference which may influence the magnitude of teacher expectation effects. For

example, Hinnant and colleagues (2009) explored to what extent student

characteristics may moderate teacher expectation effects on student later achievement,

and they found first-grade teacher expectations were linked more closely to ethnic

minority boys' third-grade reading performance than they were for ethnic majority

students and minority girls. Generally, previous research has concluded that self-

fulfilling prophecy effects are more powerful among students who are from ethnic

minority groups. However, in most cases, ethnic minority students may be

particularly likely to suffer negative self-fulfilling prophecy effects of teacher expectations.

Student socioeconomic status. Student socioeconomic status (SES) has been found to moderate the relationship between teacher initial expectations and student later achievement. Investigation of students from lower socioeconomic groups whose family has a low income and poor education background has shown that low SES students may be more vulnerable to teacher expectation effects, with standardised coefficients relating teacher expectations to student future achievement of .11 for students from higher SES background, and .25 for students from lower SES backgrounds (Jussim et al., 1996). A longitudinal study (Alvidrez & Weinstein, 1999) explored the relations between preschool teacher expectations and student high school performance and found that teacher predictions were weakest for students with higher SES families. Another study (Hinnant et al., 2009) about teacher expectations in the early school years as a predictor of future academic achievement in the reading and mathematics domains investigated nearly 1000 children and families at first, third and fifth grades. The findings showed that teacher expectations were significantly and positively related to later mathematics performance of children from families with low ($\beta = .20$, $p < .001$) and average incomes ($\beta = .12$, $p < .01$), whereas teacher expectations were not significantly related to later mathematics performance of high income family students ($\beta = .04$, $p > .10$). More recent studies have also reported consistent results of the student SES moderator. For example, one study (Gregory &

Huang, 2013) about teachers' college-going expectations and student postsecondary education status collected data from more than 4000 tenth-grade students and their teachers and parents, which found that teacher expectations had the strongest link to post-secondary education for lower income students. Sorhagen's study (2013) also used prospective longitudinal data to examine the associations between teachers' inaccurate expectations in first grade and students' high school performance at age 15; the findings suggested a significant interaction between teacher expectations and student family income, with stronger teacher expectation effects on children from relatively poorer families with respect to mathematics, reading comprehension, word knowledge and verbal reasoning scores. Consistent findings have shown that students from lower SES families may be more susceptible to expectancy effects and therefore more likely to conform to what their teachers expected.

Student gender. Previous studies have shown that female students may be more vulnerable to teachers' stereotyped expectations in mathematics, especially when they themselves have incorporated this stereotype into their own views (Eccles & Hoffman, 1984; Eccles & Jacobs, 1986; Meece, Parsons, Kaczala, & Goff, 1982). However, Jussim and colleagues (1996) conducted a study which examined nearly 2000 students in seventh-grade mathematics classes, and documented that girls' scores were not significantly affected by teacher expectations for their talent more than boys' were; the predictive effects of teacher expectations on both boys' and girls' later scores in mathematics were comparatively small (.10 to .20). Hinnant and

colleagues' work (2009) found in the subject of reading, first-grade teacher

expectations were reliably related to ethnic minority boys' third-grade reading

performance, but not to ethnic minority girls'. A more recent study (Wood, Kurtz-

Costes, & Copping, 2011) into African American students found that for boys, but not

girls, educational attainment expectations made a significant contribution to their

post-secondary progress, with eleventh-grade teacher expectations predicting college

attendance one year after high school graduation. It seemed that student gender

generally was reported as a moderator of teacher expectation effects. However, the

gender moderator functioned in a complicated manner; it seemed to interact with

some other variables, like subject and student ethnicity.

Student age. It has been commonly acknowledged that student age works as a

moderator of the teacher expectation effects mechanism, which indicates that stronger

teacher expectation effects may occur for children at earlier ages. In the classic

Pygmalion study, Rosenthal and Jacobson (1968) suggested that younger students

would be more likely to be affected by teacher expectation effects than older students.

Later studies confirmed that assumption (e.g., Kuklinski & Weinstein, 2001;

Weinstein, Marshall, Sharp, & Botkin, 1987; West & Anderson, 1976). For example,

in Kuklinski and Weinstein's study (2001), a significant age-related decline in the

effects of teacher expectations on student later achievement was found, and this

outcome may suggest that teacher expectation effects tend to magnify children's

performance gap in the early grades but gradually diminish in later grades.

Student prior achievement. In Madon, Jussim and Eccles' study (1997) of naturally occurring self-fulfilling prophecy effects of teacher expectations, evidence showed that teacher perceptions predicted student future achievement more precisely for low achievers than for high achievers. The authors (Madon et al., 1997) argued that low achieving students may "find school consistently difficult and unpleasant" (p. 793), and their greater susceptibility to teacher expectations, both positive and negative, may stem from their lower self-concept (Jussim, 1986; Swann, 1987), which may lead to greater likelihood of internalising their teachers' expectations. A more recent study conducted in the Netherlands (de Boer et al., 2010) explored the relationship between teacher expectation bias (the difference between observed teacher expectations and predicted teacher expectations on the basis of students' talent, effort and achievement) and long-term student later achievement. The findings of the study (de Boer et al., 2010) demonstrated that teacher expectations, positive or negative ones, were more closely related to low-achieving student performance after one year; however, teacher expectation effects were stronger for high-achieving students' performance after five years. Another study (Archambault, Janosz, & Chouinard, 2012) reported different results; it was found that teacher expectancy effects on student academic accomplishment in mathematics one year later were similar for all students regardless of their prior grades. However, the results may be not representative because the samples for this study were all from schools serving low SES students. In general, student susceptibility to teacher expectation effects

may vary as a function of their prior achievement. Although some studies present different and even contradictory findings, they appear to suggest that the moderation effects of student prior achievement may be influenced by other factors as well (e.g., student SES), which calls for more intensive investigations.

Other student personal characteristics. Other student personal characteristics, such as motivation, attribution pattern (Brophy, 1983), and self-concept (Madon et al., 1997), have also been found to moderate teacher expectation effects. Students who are more motivated are more prone to teacher expectation effects (Brophy, 1983). Students who attribute their success at least partially to their own efforts are more vulnerable to teacher expectation effects than students who attribute success completely to uncontrollable factors such as ability or luck (Brophy, 1983). Teacher expectations produce considerably stronger self-fulfilling effects for students with lower self-concept in mathematics than students with higher self-concept (Madon et al., 1997). When students desire to facilitate smooth social interactions, they are also more likely to conform to teachers' expectations (Snyder, 1992). So far, there is limited knowledge about student personal characteristics that may moderate teacher expectation effects, because there were few related studies and some findings were obtained from laboratory studies (e.g., Snyder, 1992) rather than in naturalistic classroom settings.

Teacher Moderators of Teacher Expectation Effects

Susceptibility to teacher expectation effects is also an individual variable in teachers (Brophy, 1983). Teacher expectation effects are more likely to occur to some teachers with particular characteristics. This section will review some major research which has classified teachers in accordance with their beliefs, expectations or behaviours and explored their varying susceptibility to teacher expectation effects.

Proactive, reactive and overreactive teacher. Based on teachers' behaviour towards students' previous and current performance, Brophy and Good (1974) hypothesised teachers as being proactive, reactive, or overreactive. Proactive teachers, who were most likely to have positive expectation effects on students, performed their own analysis of their students' characteristics and needs, had well-articulated ideas about what and how to teach, and consequently shaped students through teachers' expectations rather than through other sources (Brophy, 1983). According to Brophy and Good (1974), most teachers were reactive and had few self-fulfilling prophecy effects on students. Reactive teachers held their expectations more lightly, adjusting them to respond to new feedback and emerging trends. However, overreactive teachers, according to the authors (Brophy & Good, 1974), usually developed and maintained rigid, stereotyped expectations of students based on student prior records or first impressions, and treated students as stereotypes when interacting with them. These overreactive teachers were most likely to foster undesirable expectation effects in low achievers.

The proposal of proactive, reactive and overreactive teachers lacked empirical evidence, however. The authors hypothesised such teacher groupings on the basis of speculated teacher responses to students' prior records and present behaviour. In their studies (Brophy, 1983; Brophy & Good, 1974), teachers' expectations, teaching behaviours and the effects on student outcomes were not measured or recorded at all, but the speculations about teacher individual differences shed light upon teachers' susceptibility to teacher expectation effects.

High bias and no-bias teachers. Babad and his colleagues distinguished teachers as high bias teachers and no-bias teachers and explored the features of teachers with different susceptibility to biasing information (Babad, 1979; Babad & Inbar, 1981; Babad et al., 1982a; Babad, Inbar, & Rosenthal, 1982b). Babad (1979) devised a performance measure to identify teachers who were prone to demonstrate expectancy effects in the classrooms. In this measure (Babad, 1979), students of a physical education college were asked to score two drawings which they were told were drawn by a high-status and a low-status child (based on ethnic and socioeconomic information provided about the two imaginary children). In fact, the two drawings were actually reproduced from a test manual and the drawing attributed to the high SES child had a test manual score three points higher than the drawing attributed to the low-SES child. The differences between the scores given to the two children by the subjects (minus the three-point objective difference) were interpreted as the scorers' susceptibility to biasing information. Unbiased teachers were not

easily influenced by social status information in grading students' assignments, but highly biased teachers assigned notably higher scores to high SES students than to students with low SES.

In a series of experimental studies conducted among physical education pre-service teachers (Babad, 1979; Babad & Inbar, 1981; Babad et al., 1982a, 1982b), Babad and colleagues reported stable distributions of bias scores for the student teachers, with one sixth of the subjects scoring the drawings objectively, half mildly biased, and one fourth highly biased (Babad, 1998). Substantial differences were found between unbiased and highly biased individuals. Although highly biased teachers, not the unbiased ones, were more likely to describe themselves as over-reasonable, highly objective, logically reasoned, and unbiased (Babad, 1979), they used more dogmatic statements in written analyses of educational events and manifested more dogmatic behaviours, while no-bias teachers behaved towards students in a more democratic, balanced, flexible, and open manner (Babad & Inbar, 1981). Highly biased teachers held more strongly expressed political views (Babad, 1979) and educational beliefs (Babad, 1985) and exaggerated much more the achievement difference between high expectation students and low expectation students (Babad, 1998). Unbiased teachers perceived and predicted more accurately the differences between students, while highly biased teachers treated different students with different degrees of friendliness, different motivational strategies, and different degrees of criticism (Babad et al., 1982a). Highly biased teachers

demonstrated more nonverbal leakage indicating expectation and affect cues towards their classrooms than unbiased teachers (Babad et al., 1989a; Babad, Bernieri, & Rosenthal, 1989b). Most importantly, teachers' differing susceptibility to biasing information may lead to varying probability of generating teacher expectation effects. Highly biased teachers created more substantial negative expectancy effects on their students than unbiased teachers (Babad, 1985; Babad et al., 1982a). The series of studies by Babad and colleagues (Babad, 1979, 1985; Babad et al., 1989a, 1989b; Babad & Inbar, 1981; Babad et al., 1982a, 1982b) demonstrated teachers' susceptibility to biasing information and their subsequent differential treatment towards students. Limitations of their studies were that the participants were not in-service teachers but student teachers, the studies mainly focused on a single subject, physical education, and scorers' expectation biases were manipulated by the experimenters rather than naturally occurring.

High differentiating and low differentiating teachers. Another major teacher moderator that has been investigated is the extent to which teachers are perceived by students to treat students differentially (e.g., Brattesani et al., 1984; Weinstein, Marshall, Brattesani, & Middlestadt, 1982). In a series of naturalistic studies of elementary school-aged children (Weinstein et al., 1982; Weinstein et al., 1987; Weinstein & Middlestadt, 1979), Weinstein and colleagues developed an instrument, the Teacher Treatment Inventory (TTI), in which children independently reported on the frequency of a variety of teacher behaviours towards a hypothetical

high- and low-achieving student in their classrooms, and thus perceptions of differential teacher treatment were reflected in the difference between the ratings for hypothetical high and low-achieving students. Consistent student reports of differences in teacher treatment supported the classification of high differentiating teachers and low differentiating teachers (Weinstein et al., 1982), and classrooms may be also "characterised by the degree to which teachers are perceived to differentiate their behaviour" (Weinstein & McKown, 1998, p. 220).

Studies linking teacher expectations to student outcomes (Brattesani et al., 1984; Kuklinski & Weinstein, 2001; Marshall & Weinstein, 1986; McKown & Weinstein, 2008) showed stronger relationships between teacher expectations and subsequent academic, social and emotional outcomes of students in classrooms with high levels of perceived teachers' differential treatment. Statistical analyses reported that in classes of high differentiating teachers, 9–18% of the variance in student achievement could be explained by teacher expectations, while the figure dropped to 1–5% in classes of low differentiating teachers (Kuklinski & Weinstein, 2001).

Weinstein and her colleagues identified that high differentiating teachers were perceived by their students as communicating high expectations and allowing more opportunities to participate and more choice of tasks to high achievers, while being more directive, restrictive, and negative in their treatment of low achievers. However, low differentiating teachers were not perceived by their students to treat high and low achievers so differently (Marshall & Weinstein, 1986).

Six specific areas have been proposed to demonstrate where high differentiating teachers differed from low differentiating teachers in terms of student treatment (Weinstein, 2002). According to Weinstein (2002), high differentiating teachers were more likely to group students primarily by race, ability and relative skills, and make reference to ability differences between instructional groups, while low differentiating teachers tended to group students more flexibly according to a mixture of academic and social information of children and make less or no reference to ability differences between student groups. High differentiating teachers tended to "implement a sharply differentiated curriculum in reading, math, and spelling that was closely tied to group membership" (p. 121); however, low differentiating teachers appeared to give similar assignments for the whole class in spelling and language, science, and social studies and promote collaboration among students. When there was a need to differentiate the instruction, low differentiating teachers tried to diminish comparisons of ability among students by frequently assigning tasks which students could accomplish in different ways and always emphasising student learning from the work. High differentiating teachers saw limits in the malleability of achievement and intelligence, particularly for low performers, and they were not likely to take responsibility for improving student performance; while low differentiating teachers tended to make few public evaluations and mentions of student poor performance, hold an incremental view of intelligence, and believe that student achievement "is subject to improvement with direction, feedback, and help from the teacher and peers" (p. 128).

High differentiating teachers seemed to underscore the performance aspect of learning in the classroom, use extrinsic rewards to motivate the students, and create a competitive atmosphere; low differentiating teachers were more likely to focus on the learning processes, adopt goals for task mastery, and introduce cooperative learning within heterogeneous groups of students.

In classrooms with high differentiating teachers, classroom interaction was heavily teacher-directed, tight control was maintained by the teacher, and the students were dependent upon the teacher's judgement and help; however, in classrooms of low differentiating teachers, teachers took a facilitative role, and students were given greater responsibility for their learning. The relationships in high differentiating teachers' classrooms were featured by the frequent use of labelling and threats—"demands to keep up with the group and … [the] possibility of downward mobility" (p. 135); however, low differentiating teachers highlighted individuality and community, and the teacher–student relationship was based on mutual trust and respect. Moreover, in classrooms of low differentiating teachers, parents were positively involved, and the class actively interacted with other classes, the school and the outside world.

Weinstein and her colleagues' work (e.g., Brattesani et al., 1984; Kuklinski & Weinstein, 2000; Kuklinski & Weinstein, 2001; Marshall & Weinstein, 1986; McKown & Weinstein, 2008; Weinstein, 2002; Weinstein & Middlestadt, 1979) has contributed to further understanding of the teacher's role in moderating teacher

expectation effects. Their findings provide evidence that teacher expectation effects in natural classrooms are associated with teacher individual characteristics and the degree of differential treatment of students; however, the studies were mostly conducted in reading classrooms at elementary schools, which indicates a need for investigations within different samples.

High expectation and low expectation teachers. In more recent studies, Rubie-Davies has explored teachers' class-level expectations and pointed out that teacher expectations can be class-centred as well as individually centred (Rubie-Davies, 2006, 2007, 2008a, 2008b; Rubie, 2004). Rubie (2004) identified teachers who held correspondingly high or low expectations for all the students in their respective classes. One month into the school year, teachers were asked to rate their students' expected achievement at the end of the year from very much below average to very much above average on a seven-point scale. These ratings were compared with students' achievement at the beginning of the year, based on running records. When the data were aggregated for each teacher, teachers could be identified who had expectations that were significantly above or below students' actual performance. Data were reanalysed for high, average and low achieving students in each classroom, and the results showed that teacher expectations were at the class level. When teachers had high expectations for their high achieving students, they had similarly high expectations for their average and low achieving students; likewise the low expectation teachers held similarly low expectations for all achievement levels.

Through teacher interviews, and classroom observations, Rubie-Davies found high expectation teachers and low expectation teachers differed greatly in their pedagogical beliefs and instructional practices, provided varying learning opportunities, and created a diverse socioemotional climate in classrooms (Rubie-Davies, 2007, 2008a, 2008b; Rubie, 2004). High expectation teachers taught their students in homogeneous ability groups, but then allowed their students to choose their learning activities and to work in mixed ability groups with a range of peers, while low expectation teachers assigned discrete learning activities for high and low achieving students (Rubie-Davies, 2008a, 2008b; Rubie, 2004). High expectation teachers monitored student progress closely, and regarded assessments as sources for informing their design of instructional activities, while low expectation teachers monitored student learning less closely and used summative forms of assessment (Rubie-Davies, 2008a, 2008b; Rubie, 2004). High expectation teachers provided students with more choices of learning activities, more opportunities to work with a variety of peers and more autonomy for their learning than low expectation teachers did in their classrooms (Rubie-Davies, 2008a, 2008b; Rubie, 2004). High expectation teachers, compared with low expectation teachers, were more likely to set clear learning goals for their students and design exciting and interesting instructional activities to motivate student learning (Rubie-Davies, 2007, 2008a; Rubie, 2004). High expectation teachers adopted a facilitative role with respect to the designing of learning opportunities for students, while low expectation teachers assumed a

directive role (Rubie-Davies, 2007, 2008a; Rubie, 2004). High expectation teachers tended to orient their students to the current instruction and link this to student prior knowledge more frequently, and also provided students with more explanations of teaching materials than low expectation teachers did (Rubie-Davies, 2007, 2008a; Rubie, 2004). Compared with low expectation teachers, high expectation teachers spent more time providing a careful scaffold for students' learning, gave their students more feedback, asked their students more higher order questions, and managed their students' behaviour more positively (Rubie-Davies, 2007, 2008a; Rubie, 2004). High expectation teachers created a more supportive and conducive socioemotional climate in their classrooms than low expectation teachers (Rubie-Davies, 2008a; Rubie-Davies & Peterson, 2011).

Data showed that students with high expectation teachers made markedly more academic gains than did those with low expectation teachers after one school year (Rubie-Davies, 2007, 2008a; Rubie, 2004). In addition, students' self-perceptions in both academic and non-academic areas were also found to be associated with teachers' class-level expectations (Rubie-Davies, 2006, 2008a; Rubie, 2004). There were no statistically significant differences in student self-perceptions at the beginning of the school year. However, statistically significant differences were found by the end of the school year, because the self-perceptions of students with low expectation teachers declined substantially after one school year.

To sum up, the differences between high and low expectation teachers applied to grouping, instructional activities, socioemotional environment of classrooms, goal setting, motivation, promotion of student autonomy, and teacher feedback. Variation in teacher expectations, beliefs and practices resulted in differing learning opportunities for students and were linked to different student outcomes, which ultimately led to whole-class teacher expectation effects.

Rubie-Davies' work about teachers' uniform expectations for all students in the class, and the effects on the overall class outcomes added weight to the argument that teacher expectation effects may be a function of individual differences in teachers. Her work identified the teachers who were more likely to enact expectancy effects on the whole class, and suggested possible mechanisms for such effects. However, a larger sample size is needed to enable generalisation of the results. Further, Rubie-Davies' studies were conducted in reading and physical education courses in elementary schools, which left other subjects and school levels unexplored.

Situation Moderators of Teacher Expectation Effects

Teacher–student interaction can also be moderated by the situation or context in which students are placed (Brophy & Evertson, 1978). Research in relation to context moderators is not abundant within the teacher expectancy field. In the following section several major contextual factors are discussed.

Transitional situations. A meta-analysis completed by Raudenbush (1984) showed that the strongest teacher expectation effects occurred in the first, second and

seventh grades. Larger self-fulfilling prophecy effects have also been reported for

adult trainees in a military programme (Eden & Shani, 1982). It seemed that these

findings denied a moderating role for age, but they suggested moderation effects of

situational factors (Jussim et al., 1998). People, even adults, may be more susceptible

to self-fulfilling effects of interpersonal expectancy when they were transferred from

previously familiar situations to new ones (Weinstein & McKown, 1998). When

people engage in major transitions, they may have less clear and confident self-

perceptions in new situations, which may increase the likelihood of expectancy effects

(Jussim et al., 1998). Results from other findings also consistently show that when

students are in transition phases, such as entering a new school level, they are more

likely to behave in ways that confirm teacher expectations (Jussim, 1986; Swann &

Ely, 1984). In new situations, the correlation between teacher expectations and

student performance are strengthened, which implies that the "new situation"

functions as a moderator of teacher expectation effects; however, there have not been

any studies that have focused on adolescent students who are freshmen at colleges or

universities for whom the new situation factor may also apply.

    Ability grouping. Grouping students refers to segregating students into

different groups or classes according to their abilities. Grouping, in the eyes of

students and teachers, represents institutional justification for believing that students

are different in IQ or academic potential (Jussim et al., 1998). Thus grouping may

lead to more rigid teacher expectations. Also, compared with students who are not

grouped, students in ability groups appear to be more susceptible to labelling effects, which are more likely to provoke self-fulfilling prophecy effects or perceptual biases of teacher expectations (Eccles & Wigfield, 1985; Hall & Merkel, 1985; Jussim, 1986, 1990; Palardy, 1969). Self-fulfilling effects of teacher expectations have been found to be strongest among students in the low ability groups when teachers use within-class grouping (Smith et al., 1998). Poor quality instruction (Jussim et al., 1998), reduced teacher effort (Evertson, 1982) and limited learning opportunities (Slavin, 1993) for students in low-ability groups may restrain student academic gains considerably. Some studies (e.g., Kelly & Carbonaro, 2012; Weinstein, 2002) have also discussed teacher expectation effects on students who are placed in higher groups. Teachers may hold higher expectations for students in higher groups, and placement in higher ability groups may provide students with increased learning opportunities and lead to greater academic gains over time. In addition, it has been argued that self-fulfilling prophecy effects of teacher expectations may be stronger for student groups than for individual students (Brophy, 1983; Jussim & Fleming, 1996; Rubie-Davies, 2008a). Group-level expectancy effects may be more powerful because more students are involved as a member of a group, a false belief about a group may be more credible and more difficult to disconfirm, and teachers spend more time addressing the classes or groups as a whole than addressing their students individually (Smith et al., 1998).

Class/group size. Teacher expectation effects may be more likely to happen in classrooms or groups with larger numbers of students than in smaller classrooms or groups. This is because teachers in larger classrooms or groups are busier and more occupied, and therefore more susceptible to biases or rigid expectations (Brophy, 1983; Doyle et al., 1972). On the other hand, teachers in smaller classrooms or groups show less differential attitudes to students and even put in more effort to compensate for low expectation students (Weinstein, 1976). In addition, with limited resources in larger classrooms or groups, such as computers, laboratories, and athletic facilities, teachers may find it more difficult to manage instructional practice, and thus be more subject to perceptual biases and self-fulfilling expectancy effects (Rosenthal & Rubin, 1971).

Nature of the content being taught. Research has proposed that with tasks of familiar content and predictable difficulty level, teachers are likely to form accurate expectations and therefore self-fulfilling effects of teacher expectations are less likely (Brophy, 1983). One empirical study has found that larger teacher expectation effects take place in relation to student reading achievement than for mathematics achievement (Smith, 1980), which may be due to the differences in instructional practice used in teaching reading and mathematics. For example, reading may be taught in small groups while mathematics is often taught to the class as a whole (Cooper, 1985; Good & Brophy, 2009). Rubie-Davies (2008a) reported that class-level teacher expectation effects varied across curriculum areas, being more salient in

reading than in physical skills. Sorhagen's longitudinal study (2013) also found varying teacher expectation effects across academic subjects. Teachers' false expectations in mathematics and language abilities, but not reading abilities, "seemed to have a more meaningful effect on students from lower income families" (p. 475). Another moderator related to the subject is when new content is being introduced. Self-fulfilling effects of teacher expectations are highly probable especially when students are dependent on their teachers as limited sources of the new content (Braun, 1976; West & Anderson, 1976). Additionally, if subject matter is taught through peer-tutoring or self-pacing to a larger degree than through teacher delivery, teacher expectation effects probably would be reduced (Cooper, 1985).

Mediating Teacher Expectation Effects

After the academic world reached a consensus about the phenomenon of teacher expectation effects, a second major topic of research emerged about how self-fulfilling effects of teacher expectations were mediated. Researchers have proposed various mediating models of self-fulfilling effects of teacher expectations (e.g., Brophy & Good, 1970; Brophy & Good, 1974; Cooper, 1979; Darley & Fazio, 1980; Jussim, 1986). In the following sections, several major proposed models are reviewed.

Brophy and Good's model. The model hypothesised by Brophy and Good (1970) was the first model trying to explain classroom expectation processes. The researchers focused on observing teacher behaviours in the classroom which recorded dyadic teacher–student interactions and determined the differential behaviours of

teachers towards high and low expectation students. This proposed model is composed of the following steps:

1. Teachers form differential expectations for student performance.

2. Teachers behave differently towards different students.

3. The differential teacher behaviour communicates differential teacher expectations to individual students.

4. Students' self-concept, achievement motivation, level of aspiration, classroom conduct, and interaction with teachers are affected by differential teacher treatment.

5. These effects complement and reinforce teachers' initial expectations.

6. Ultimately, students show a difference in their achievement and other outcomes, indicating that teacher expectations can function as self-fulfilling prophecies.

Brophy and Good's model made a significant contribution to the understanding of the mediation process of teacher expectations. First, their model highlighted the differential proximal behaviours of teachers, which prompted later research to focus on observing teacher behaviours in the real classroom. The second major contribution of Brophy and Good's model was to recognise the student role in the expectation mediating process. This model laid the foundation for other models which were extended later; for example, that of Darley and Fazio (1980). However, one limitation of Brophy and Good's model was that the researchers mainly focused on the dyadic

teacher–student interactions as the mediator for teacher expectations, but neglected the communication of teacher expectations to the classroom as a whole. Another limitation was that this model solely concentrated on proximal behaviours of teachers and students, but failed to include distal variables, such as learning opportunities and classroom climate.

Cooper's model. The Expectation Communication Model proposed by Cooper (Cooper, 1979) applied social theory to further understanding of the teacher expectation effects procedure. The model argued:

1. Teachers form differential expectations for student performance.

2. Teachers' expectations, within the teacher–student interaction context, influence teacher perceptions of control over student performance.

3. Teacher perceptions of control influence teacher feedback and the socioemotional climate of the classroom.

4. Teachers' differential feedback influences student beliefs concerning the importance of effort in producing personal outcomes.

5. Students' effort–outcome perceptions influence the quality of and motivation behind student performance.

This model integrated the teacher–student interaction context, feedback and classroom climate into a process. Cooper proposed that the interaction context could differ in the content, timing and duration of the teacher–student interaction as a result

of different initiators (teacher or student) and setting (private or public) of the

interaction, which may afford the teacher differing amounts of personal control

(Cooper, 1979). According to the researcher (Cooper, 1979), the greatest teacher

control may be felt "over self-initiated private interactions and the least over student-

initiated public interactions" (p. 397). Cooper (1979) argued that teacher perceptions

of control varied between high and low expectation students, which may lead to

different feedback and affective climate towards high and low expectation students,

and consequently influence students' self-efficacy, motivation and effort. Later the

model was revised after the researchers performed a naturalistic investigation in 17

classrooms (Cooper & Good, 1983), and suggested that student interpretations and

perceptions of teacher behaviours needed to be given more of a role in the model

(Cooper, 1985). The Expectation Communication Model made its contribution to the

expectancy effect process by attaching importance to the socioemotional environment

in the classroom. Moreover, this model also placed stress on student interpretations

of teacher expectation cues transmitted by teacher behaviours. However, this model

seemed to be largely based on teacher perceptions of control over every interaction,

and assumed that the need for control was pervasive for all teachers. Another

limitation of this model was its generality. Cooper and Good (1983) tried to find out

whether the model explained how teacher expectations affect the average performance

of separate, whole classrooms. They recognised that it did not fit the general pattern

of the teacher expectation communication process for all classrooms, regardless of

between-class differences (Cooper, 1985; Cooper & Good, 1983).

Darley and Fazio's model. This model followed the general interaction

sequence and highlighted the interaction between the perceiver (teacher) and the

target (student) (Darley & Fazio, 1980). Darley and Fazio proposed that the

mediation model of teacher expectation effects involved:

1. A teacher's formation of expectancy about a student.

2. The teacher's behaviour congruent with the expectancy.

3. The student's interpretation of this behaviour.

4. The student's response.

5. The teacher's interpretation of the student's response.

6. The student's interpretation of his or her own response.

This model attached greater importance to the student role in the expectation

process than previous models had, emphasising how the student interpreted and

responded to perceived teacher expectations. However, this model again focused on

the dyadic teacher–student interactions and failed to depict how teacher expectation

effects were mediated for whole classrooms.

Weinstein's model. Weinstein (2002) proposed an ecological paradigm which

highlighted the interactions among persons and environments in teacher expectancy

effects. Teacher expectation effects take place in interdependent environmental

contexts of classroom, family, school and community. Interactions between

individuals and environments, and variation in these nested settings, may shape

student reactions to perceived teacher expectations, and consequently increase or

decrease their susceptibility to expectancy effects. Weinstein's model elaborated the

climate factor, and regarded personal relationships in the classroom, family and

school as important variables in the mediating process. Apart from the quality of

personal relationships, Weinstein (2002) also included the time factor in the

ecological environment, and argued that the timing background, such as cognitive-

developmental shifts in children and grade-level transitions, contributed to expectancy

effects too (e.g., Kuklinski & Weinstein, 2000; Kuklinski & Weinstein, 2001;

Weinstein et al., 1987). In addition, Weinstein (2002) emphasised that understanding

the effects of teacher and institutional expectations on students "must be informed by

the perceived and lived experience of participants in the process" (p. 65), and thus she

built her research on the basis of student perceptions of teachers' differential

expectations (e.g., Brattesani et al., 1984; Kuklinski & Weinstein, 2000; Marshall &

Weinstein, 1986; Weinstein et al., 1982; Weinstein et al., 1987; Weinstein &

Middlestadt, 1979).

Weinstein's model provided understandings not only of reciprocal interactions

between teacher and student relationships, but also of the interdependence of effects

within and between the multiple levels of the ecological system that students were

placed in. This model tried to account for expectancy effects on students as

cumulative consequences of a multilevel environment, which contributed an

understanding of such effects from a higher and broader perspective. What is also worth mentioning is that Weinstein's model emphasised the contextual factors, such as time and curriculum area, which may have some implications for generalisation of teacher expectancy effects across different levels of schooling and different disciplines.

    Rubie-Davies's model. A more recently developed model has been introduced by Rubie-Davies (2008a). The model integrated and complemented previous models, and further advanced understanding of the mediating process of teacher expectation effects by proposing:

1. The teacher holds beliefs about teaching and learning and about students; these beliefs shape the teacher's decisions about learning opportunities and expectations for students.

2. Based on information about students and information about student prior achievement, the teacher forms expectations for individual students' academic performance and behaviour. Both the instructional and socioemotional climate of the classroom are structured as a result.

3. (a) The teacher communicates expectations to individual students and the class through verbal and nonverbal interactions. The classroom and instructional climate further enhances the expression of these expectations. (b) The teacher plans and delivers opportunities to learn based on expectations for student learning.

4. (a) The students interpret the teacher's verbal and nonverbal interactions and behaviours. The instructional and emotional climate of the classroom will contribute to this interpretation. (b) The students participate in the learning opportunities provided by the teacher.

5. (a) The students may or may not act on the teacher's interactions that indicate teacher expectations for academic performance and behaviour. The student's self-efficacy and motivation may act as mediators. (b) Student learning occurs according to the learning opportunities provided by the teacher.

6. Student outcomes occur as a result of the learning opportunities students have experienced, how students have interpreted teachers' expectations from the teacher's verbal and nonverbal behaviours, and the degree students to which have accepted teachers' expectations.

This model specifically incorporated distal behaviours, including teacher beliefs about teaching and learning, which may underpin teacher expectations and in turn shape learning opportunities and the socioemotional climate for student learning. Also, this model explained how teacher expectations for whole classes were mediated more by varying instructional practices and classroom climate than by dyadic interactions. Finally, it highlighted the teacher's role in the mediation process of teacher expectations while also including the student component.

As reviewed, since the 1970s researchers have attempted to identify the social and psychological processes of self-fulfilling effects of teacher expectations. The proposed models, basically have all agreed on three broad stages in the mediating process. First, teachers must develop expectations; secondly, teachers behave differently towards students; and finally, students react to confirm teacher expectations (Jussim et al., 1998). Briefly, the mediating process consists of three steps: development of teacher expectations, transmission of teacher expectations, and student reaction. The following sections will review previous research related to these three steps.

Development of Teacher Expectations

This section examines the potential bases of teacher expectations. It presents both teacher and student characteristics that have a significant influence on the level of teacher expectations.

Student ethnic group. A large body of research has compared varying teacher expectations across students of different ethnic groups (e.g., Dusek & Joseph, 1983; Irvine, 1990). Some studies have concentrated on teachers' differing expectations for African American and European American students. For example, Dusek and Josephs's meta-analysis (1983) found that there was a statistically significant tendency for teachers to form higher expectations for European American students (d = .11). Another meta-analysis of 16 studies (Baron, Tom, & Cooper, 1985) concluded that teachers held significantly more favourable expectations for European

American students than for African American students ($d = .22$). Wigfield and

colleagues also found that teachers had comparatively lower expectations for African

American students (Wigfield & Galper, 1999). A study (Figlio, 2005) conducted in

United States reported that teachers and school administrators expected less from

children with typically African American names. In United Kingdom, research has

also found that African Caribbean students were systematically expected less of than

their European British peers (Strand, 2012). To examine other groups regarding the

role of ethnic stereotypes, a meta-analysis (Tenenbaum & Ruck, 2007) showed that

teachers held highest expectations for Asian American students, then more positive

expectations for European American students than for Latino or African American

students. McKown and Weinstein (2008) reported that for high differentiating

teachers, their expectations for European American and Asian American students

were higher than for African American and Latino students, with expectations of

European American and Asian American students being .75 to 1.00 standard

deviations higher than teacher expectations of African American and Latino students

with similar records of achievement. Hinnant and colleagues' study (2009) about

young students suggested that fifth-grade children from ethnic minority families were

expected less of in mathematics by their teachers. In New Zealand, researchers have

also identified teachers' higher expectations for all students other than Māori students

(Rubie-Davies et al., 2006). In the Netherlands, it has been found that teachers with

implicit prejudice held higher expectations for Dutch-origin students than for Turkish-,

Moroccan- and other-origin students (Van den Bergh, Denessen, Hornstra, Voeten, &

Holland, 2010). In a study of teacher expectations for student potential for college

(Gregory & Huang, 2013), the researchers examined a large sample of United States'

high school teachers of English reading and mathematics, and found that English

reading and mathematics teachers held the highest college-going expectations for

Asian American students compared with African American, Hispanic and European

American students.

    Student socioeconomic status. It has been documented that teacher

expectations are a function of student socioeconomic (SES) background (see Rist,

2000, for a review). The academic world has commonly contended that teachers hold

higher expectations for students with higher SES, but lower expectations for students

from a lower class background. An earlier meta-analysis of 20 studies showed that

teachers relied heavily on social class when developing their expectations (Dusek &

Joseph, 1983). Their meta-analysis results demonstrated that teachers formed

negatively biased expectations for students from lower socioeconomic backgrounds,

and held significantly higher expectations for middle-class students ($d = .47$). Later

research has also reported consistent results. For example, Madon and colleagues

(1998) examined the correlation between teacher expectations and student social class,

and the results indicated that teachers believed that middle-class students would

achieve significantly more highly ($p < .01$) and have more talent ($p < .01$) than lower-

class students. Children with higher socioeconomic status and those perceived as

assertive and independent were judged by teachers more positively than IQ score

predicted. Conversely, students with low SES and perceived immaturity were

associated with more negative teacher judgments than their IQ score predicted

(Alvidrez & Weinstein, 1999). Channouf, Mangard, Baudry and Perny (2005) gave

varied information about student socioeconomic status to middle school teachers and

found that teachers held lower expectations of students from lower social class and

family background than their peers with higher SES. A study conducted in the

Netherlands (de Boer et al., 2010) investigated teacher expectation bias, the

differences between the observed teacher expectations and the expectations "that one

would predict on the basis of students' talent, effort, and achievement" (p. 171), and

the authors concluded that teacher expectation bias was positively related to student

socioeconomic status, which indicated that teachers may hold higher expectations for

higher SES students than the students actually deserved. In United Kingdom,

researchers followed approximately 4,000 students from kindergarten and

investigated the relationship between their teachers' expectations and the students'

characteristics, and reported a positive association between student socioeconomic

status with teachers' expectations (Speybroeck et al., 2012). A study of a large

sample of teachers and students at United States' secondary schools (Gregory &

Huang, 2013) showed that teachers "held the most positive expectations for students

in the highest economic quartiles, beyond student differences in achievement" (p. 52).

Gut and colleagues (2013) completed a 3-year longitudinal study with 5–7 year old

children, and the findings also indicated that teacher expectations of children's academic competence were negatively associated with children's family adversity (socioeconomic status and migration background).

Student gender. The issue of the relation between teacher expectations and student gender is a complex one. Some studies have reported teachers' more favourable expectations for girls (e.g., Brophy & Good, 1974; Doyle et al., 1972; Dusek & Joseph, 1983). Dusek and Joseph's meta-analysis (1983) indicated teacher expectations as a function of gender in terms of student social/personality development ($d = .07$) , with approximately 53% of girls being expected to behave better than the average boy. A later study of teachers' expectations for their young students also found that teachers perceived girls as performing significantly better ($p < .01$) and as exerting significantly more effort ($p < .01$), compared with boys (Jussim et al., 1996). A longitudinal study (de Boer et al., 2010) which monitored 11,000 secondary school students for five years found that teachers were more likely to expect more for girl students beyond their actual performance. In a study of teacher expectations of student potential for attending college, the researchers also reported that teachers held highest college-going expectations for female students (Gregory & Huang, 2013). Previous studies have argued that teacher expectations are related to student sex roles. For example, some research has indicated that masculine behaviours are associated with being higher on intelligence, independence, logic and creativity, while feminine behaviours are associated with being more persistent, more

careful, more hard-working, and more motivated (Auwarter & Aruguete, 2008; Chalabaev, Sarrazin, Trouilloud, & Jussim, 2009). It seemed that teachers may link such stereotyped sex roles to the requirements of particular academic subjects, and thus form varying expectations for male and female students. For example, Hinnant's study (2009) found that student gender was significantly related to teacher expectations of reading ability, suggesting that teachers tended to expect more for girls' reading ability and less for boys. Another study also reported that teachers tended to expect more for girls' language skills (Sorhagen, 2013). In addition, girls are expected by their teachers to be more interested and talented in arts and literature (Catsambis, Mulkey, Buttaro Jr, Steelman, & Koch, 2012). On the other hand, it has been commonly argued that boys are often viewed by their teachers as more interested in and skilled at science and mathematics than girls (Spelke, 2005). Also, stereotypes favourable to boys were found related to higher teacher expectations for male students in gymnastics (Chalabaev et al., 2009).

Student prior achievement. Students' prior achievement was found to be the most influential factor on teacher expectations (see Jussim & Eccles, 1995; Jussim et al., 1996 for reviews). By far, the strongest influences on teacher expectations were usually found to be students' past performance in previous examinations and standardised tests (e.g., Dusek & Joseph, 1983; Hinnant et al., 2009). A meta-analysis (Dusek & Joseph, 1983) identified a significant and strong relationship between student previous achievement and teacher expectations ($d = .85$), concluding that

more than 70% of students who had achieved at higher levels previously were expected to continue to perform better than those students who had previously performed at lower levels. Fleming's study (1999) reported that students' previous performance may be perceived by teachers as an accurate predictor of future outcomes, and hence teachers tended to award higher marks to students with previous records of higher grades. Caprara and colleagues' study (2006) of Italian teachers and students in junior high schools also found that teachers had lower expectations for lower achieving students, were less satisfied with their work, and maintained more negative beliefs towards them, compared with higher-achieving students. In Hinnant and colleagues' investigation (2009) into teacher expectations and student academic achievement in the early school years, students' preschool performance was found to significantly predict teacher expectations for reading in first, second and fifth grades respectively, and to significantly predict teacher expectations for mathematics in third and fifth grades as well. The findings of most studies have commonly documented that teacher expectations are positively correlated with students' prior achievement, but one study reported equivocal results (de Boer et al., 2010). Specifically, de Boer and colleagues (2010) assessed students' prior achievement at the end of elementary school, and examined its relation with their secondary school teachers' expectation bias. However, the results showed that teacher expectations seemed to be biased positively for students with lower prior achievement, indicating that teachers may hold higher expectations for low achievers than the students' actual performance.

Student diagnostic labels. Researchers have found that a diagnostic label appears to influence teachers' expectations. The learning disability label may generate teachers' negative expectations, stereotypes and attitudes (see Osterholm, Nash, & Kritsonis, 2007 for a review). It has been also reported that students with the ADHD label (Attention Deficit/Hyperactivity Disorder) receive more negative judgments and lower expectations from teachers than students without the label (Stinnett, Crawford, Gillespie, Cruce, & Langford, 2001). A more recent study has confirmed the previous findings that teachers rated children with the ADHD label less favourably than children with no label (Batzle, Weyandt, Janusis, & DeVietti, 2010). A study about teacher expectations towards students with dyslexia (Hornstra, Denessen, Bakker, van den Bergh, & Voeten, 2010) provided evidence of consistent and statistically significant differences in teacher expectations for students with dyslexia versus students in a reference group in writing, spelling, and mathematics which were all in favour of the reference group students. Peeters, Verhoeven, and de Moor (2009) investigated teacher expectations of children with cerebral palsy and children without disabilities in terms of their future literacy success, and the results revealed that teachers' expectations of children with cerebral palsy were lower regarding their potential writing and reading success.

There were some other student characteristics which were presumed to be the bases of teacher expectations; for example, student physical attractiveness and students' elder sibling's previous performance. It has been documented that teachers

have higher expectations for more physically attractive students than for less good-looking students (e.g., Braun, 1976; Dusek & Joseph, 1983; Krnjajić Stevan, 2005). It has also been found that teachers may have a tendency to expect younger siblings to be more like elder siblings than they actually are (e.g., Richey & Ysseldyke, 1983; Seaver, 1973).

Apart from student characteristics, some teacher variables may also shape teacher expectations; however related research is comparatively scarce.

Teacher self-efficacy. What teachers believe about their ability to influence student learning may be related to teacher expectations. It has been argued that when teachers have stronger beliefs in their work competence, they are more likely to have high expectations for all students. Researchers have proposed that teachers who believe that they can make a large difference to student learning are more likely to set higher goals (Midgley, Feldlaufer, & Eccles, 1988), adopt innovative and advanced instructional strategies (Nie, Tan, Liau, Lau, & Chua, 2013), take responsibility for student learning (Soodak & Podell, 1996), and persist through problems and obstacles (Soodak & Podell, 1993), which may lead to greater classroom success and higher expectations (Ross, 1998; Tschannen-Moran & Hoy, 2001). In contrast, teachers with lower self-efficacy are believed to rely on weaker and easier teaching approaches (Ashton & Webb, 1986), respond to management problems permissively (Dibapile, 2012), and fail to keep students on task (Ashton, 1983), which may result in poor classroom outcomes and lower expectations. Meanwhile, it has been assumed that

teachers with lower efficacy are more vulnerable to stereotype biases and form low expectations for students from stigmatised groups, because they may not believe that they can enhance those students' academic achievement (Ashton & Webb, 1986). Very little work has been done to empirically measure the relationship between teachers' self-efficacy and expectations, and the results of those studies seemed to be equivocal. For example, Archambault, Janosz, and Chouinard (2012) conducted a study on a sample of 79 Grade 7–11 mathematics teachers in Canada which assessed teachers' self-efficacy and expectations for student achievement, and the authors found the correlation between teachers' expectancy and self-efficacy was high (.55). However, in a study conducted in New Zealand (Rubie-Davies, Flint, & McDonald, 2012), the authors investigated 68 teachers' self-efficacy and goal orientation beliefs, and found teacher self-efficacy did not significantly predict teachers' class-level expectations. Although it seems plausible that a teacher who has high expectations may have the confidence to make a large difference to student learning (Roeser, Marachi, & Gehlbach, 2002), this proposition still needs further empirical studies and evidence.

Teacher beliefs in intelligence/ability. Whether the teacher's notion of intelligence and ability is fixed or incremental—that is, if the teacher believes student intelligence and ability to be a stable or a developmental trait—seems to be related to whether teacher expectations are high or low. It has been argued in previous research that teachers who hold beliefs that intelligence and student ability are fixed are likely

to have low expectations for their students because the teachers believe that some students simply have low ability and cannot progress markedly (Brophy, 1982; Dusek et al., 1985; Eccles & Wigfield, 1985; Jussim, 1989). On the other hand, teachers with beliefs that intelligence is incremental have higher expectations for students, and interact more often and at higher cognitive levels with all their students because the teachers believe it is the educator who provides learning opportunities and experiences that will enhance student development (Jordan & Stanovich, 2001). Dweck and colleagues found that teachers who believed that intelligence or personal traits can be changed tended to be less likely to diagnose students for their presumed low ability (Rattan, Good, & Dweck, 2012), were less biased by stereotypical information (Plaks, Grant, & Dweck, 2005; Plaks, Stroessner, Dweck, & Sherman, 2001), and had higher expectations for and greater openness towards student improvement (Chiu, Hong, & Dweck, 1997; Erdley & Dweck, 1993; Plaks et al., 2001).

There is a paucity of studies about other teacher characteristics which may be related to their expectations. There is a need for further and broader investigations into the role that teacher personal traits may play in forming expectations for their students.

Based on student information and teacher beliefs, teachers form expectations for individual students' and the overall class performance. To generate teacher expectation effects, teachers' expectation cues are communicated to individual

students and the class through the teachers' verbal and nonverbal interactions with students. In the following section, the channels through which teacher expectations are conveyed will be reviewed.

Transmission of Teacher Expectations

Primarily, teacher expectation cues are transmitted through teacher behaviours, and perceived and interpreted by students. This section will review how teacher expectations may be expressed by teacher-initiated behaviours. Previous research has discovered some teacher behaviours which may convey expectancy cues. These behaviours of teachers may influence instructional practices, teacher–student interactions, classroom climate and so on through which teacher expectations may become salient.

Brophy and Good's summary of mediators. Brophy and Good (1974) compiled a list of teacher interaction behaviours as potential mediators of the teacher expectation mechanism and later summarised 17 teacher interaction mediators on the basis of studies of other researchers and their own (Brophy, 1983, 1985). Their work focused on how low expectations can cause teachers to limit students' learning; hence they presented teacher behaviours in a way to highlight the mechanisms through which teachers might minimise the learning progress of low expectation students. The list of teachers' differentiating behaviours included: waiting less time for low expectation students to answer; giving low expectation students the answer or calling

on someone else rather than trying to improve low expectation students' responses by giving clues or repeating or rephrasing the question; inappropriately rewarding inappropriate behaviour or incorrect answers from low expectation students; criticising low expectation students more often for failure; praising low expectation students less frequently than high expectation students for success; failing to give feedback to the public responses of low expectation students; generally paying less attention to low expectation students or interacting with them less frequently; calling on low expectation students less often to respond to questions; seating low expectation students farther away from the teacher; demanding less from low expectation students; differentiating between low and high expectation students in terms of the type and initiation of individualised interactions; differentiating in the administration or grading of tests or assignments such that low expectation students are not given the benefit of the doubt in borderline cases; interacting with low expectation students in a less friendly manner, such as smiling less and giving fewer other nonverbal indicators of support; giving briefer and less informative feedback to the questions of low expectation students; making less eye contact and less nonverbal communication of attention and responsiveness in interaction with low expectation students; giving less intrusive instruction for low expectation students and providing more opportunity for them to practise independently; and using fewer effective but time consuming instructional methods with low expectation students when time is limited.

Brophy and Good's work emphasised that teacher differential behaviours towards different students functioned as the mediating mechanisms for teacher expectation effects. In addition, it pointed out that teacher expectation cues can be conveyed in both direct and subtle ways.

Rosenthal's four-factor theory. Rosenthal (1974) reviewed studies of mediators and identified four factors mediating teacher expectation effects, as follows:

1. Climate: socioemotional relationships in classroom.

2. Feedback: teachers' praise and criticism for students' achievement and performance.

3. Input: teachers' time and attention paid to students, and teaching materials taught to students.

4. Output: students' opportunities for output provided by teachers.

Later, Harris and Rosenthal (1985) identified 31 teacher behaviours as mediators of teacher expectation effects through a meta-analysis of 136 investigations. The analysis found distal behaviours of teachers could mediate teacher expectations to a greater extent than proximal behaviours in teacher–student interactions. Teacher behaviours, such as creating a friendlier classroom climate, teaching high expectation students more concepts or more difficult concepts, and having longer interactions with high expectation students had a stronger effect on student achievement than the direct teacher–student interactions which had most frequently been studied. After conducting a meta-analysis on the possible mediators of teacher expectation effects,

the researchers amended the four-factor theory into a two-factor one: affect and effort (Harris & Rosenthal, 1985). They found that the climate and input factors produced the largest effect sizes ($r = .35$); while the output factor had a significant but smaller effect size ($r = .20$) and there was a very small effect size for the feedback factor ($r =.07$). Hence in the modified two-factor theory, the affect dimension represented the original climate factor, the effort dimension combined the input and output factors, and the original feedback factor was deleted. The findings of the meta-analysis suggested that teachers tended to give feedback equally to high and low achieving students, which was contrary to the earlier research. One possible explanation for teachers' equal feedback may be that teachers successfully controlled their feedback behaviours as a result of the well-known expectancy research.

Rosenthal and Harris' (Harris & Rosenthal, 1985; Rosenthal, 1974, 1991) research recognised the importance of distal behaviours as mediating teacher expectancies, especially the socioemotional environment for students. The "climate" factor has been defined as the warmer socioemotional environment that teachers create for high expectation students compared to low expectation students, which continued to focus on the effect of "climate" on individual students. However, their research indicated a stronger relation with the effect on the whole class, for example the climate shared by the entire classroom, which may suggest a possible mediating mechanism for class-level teacher expectation effects.

Weinstein's summary of mediators. As reviewed in a previous section, Weinstein and her colleagues identified the typical differences in behaviours of high differentiating and low differentiating teachers which provided students with teacher expectation cues and also shaped their learning experiences (Marshall & Weinstein, 1986; Weinstein, 2002; Weinstein & McKown, 1998). Teachers' differential treatment of students suggests mediating mechanisms for expectancy effects (see the section on high differentiating and low differentiating teachers). Mediators proposed by Weinstein elaborated the four dimensions of Rosenthal's (1974) original four-factor model. For example, the quality of classroom relationships was an indicator of the "climate" factor, and the tasks and materials through which the curriculum was enacted underscored the "input" factor.

According to the researchers, these instructional choices and socioemotional relationships were informative to students about their ability differences, which may maximise or minimise such information. Furthermore, these instructional choices that teachers made and socioemotional relationships that teachers helped to create may shape different learning opportunities for different students, and hence moderate teacher expectation effects (Weinstein & McKown, 1998).

Weinstein's work has accentuated teachers' instructional behaviours which may result in the actual learning opportunities provided to each student. Meanwhile, her work has attached great importance to some distal behaviours of teachers which may

lead to differential instruction delivered towards students with different ability, such as teachers' beliefs about intelligence and ability. More importantly, Weinstein's theory has delineated why teacher expectation effects are more likely to happen in some classrooms. It has accounted for the ways in which high differentiating teachers convey their differential expectations to students in classrooms, which has paved the way for establishing mechanisms for class-level teacher expectation effects. Last but not least, Weinstein's summary of the mediators of expectancy effects has provided a focus on different contextual levels. Her work has incorporated the qualities of the socioemotional relationship among classroom, parent and school into a broader context based on teacher difference which contributes to differential expectation effects. The mediating model of teacher expectation effects Weinstein has proposed functions within a multiple-level ecology of classroom, family and school, which has facilitated the exploration of teacher expectation effects from a more generalised perspective.

Rubie-Davies' summary of mediators. As reviewed in a previous section, Rubie-Davies (2007, 2008a, 2008b; 2004) identified teacher behaviours which may communicate teacher expectancies to students. The differences in pedagogical beliefs and instructional practices between high and low expectation teachers suggest possible mediators for the expectancy mechanism (see the section on high and low expectation teachers). Rubie-Davies' (2007, 2008a, 2008b; 2004) proposition of mediating mechanisms can apply not only to teacher–student dyadic interactions but

also to interactions at the class level. The author concluded that teachers' pedagogical beliefs and instructions may shape learning opportunities for students and help to create both the instructional and socioemotional environment of the classroom. The integrated instructional and socioemotional environment are experienced and shared by all the students in the class, and thus the teacher may communicate expectancies to the whole class. Rubie-Davies' work is the first to focus on the communication of teacher expectations to the whole class rather than to individual students, which helps with the understanding of more generalised teacher expectation effects. Moreover, her theory integrated the instructional and socioemotional channels, namely learning opportunities and classroom climate, which represented the distal and proximal teacher behaviours in communicating expectancy cues. Rubie-Davies' work has so far best elaborated Rosenthal's (1974, 1991) "effort" and "climate" factors, but its generalisation needs further evidence; for example, a larger sample size or school levels other than the elementary one.

Teacher-oriented behaviours generate the communication of expectancy cues. Teachers design instructional activities, provide learning opportunities, and create a particular socioemotional environment through which their expectations for individual students or the whole class are conveyed. For the self-fulfilment of teacher expectations, students are supposed to participate in those instructional activities, and therefore students' perceptions of expectancy cues and reactions to them are the next key links in the mediation chain. Only when students are aware of, interpret, accept,

and conform to what the teacher expects for them, can student future outcomes confirm initial teacher expectations. The next sections will review how students perceive and respond to teacher expectancy cues.

Student Reactions to Teacher Expectations

The student role is an indispensable part of the mediating process of teacher expectations. Whether student performance moves towards or away from teacher expectations is based on student awareness and acceptance of teacher expectancy cues. Studies have shown that students are capable of perceiving and interpreting the verbal and nonverbal cues expressed by teachers, and later that they internalise and act upon these cues about teacher expectations (Babad, 2009).

Student perceptions of teacher expectations. Studies (Babad, 1998; Babad et al., 1989b; Kuklinski & Weinstein, 2000; Weinstein, 1993) have provided evidence that even elementary school students can perceive and make sophisticated interpretations of expectancy cues from teacher behaviours, both verbal and nonverbal. The evidence suggests that students can detect teacher expectations from teachers' feedback, the classroom environment, and teachers' instructional activities. For example, students can distinguish between praise as deserved and praise as having an instructional purpose (Morine-Dershimer, 1982). In some instances students may perceive teacher criticisms as teachers' care and high expectations (Mitman, 1985). Students make fine distinctions in teachers' "calling-on" behaviours. For example, students perceive that the teacher calls on the low achievers sometimes to give them a

chance, but calls on the high-achieving students for the right answer (Weinstein, 1985). Students can also perceive teachers' differential treatment for different students. Students are sensitively aware and can articulate that high achievers are given higher academic demands; given more special privileges, opportunities and choices; allowed with more autonomy for learning; and offered teacher-initiated public interactions more frequently. In contrast, low achievers receive fewer chances, more vigilance, more negative feedback, greater teacher help, more work or rule orientation, and more frequent teacher-initiated private interactions (Brattesani et al., 1984; Cooper & Good, 1983; Kuklinski & Weinstein, 2000; Weinstein, 1983, 1985; Weinstein et al., 1982; Weinstein et al., 1987; Weinstein & Middlestadt, 1979). Weinstein (1986, 1989, 1993) interviewed 133 fourth graders about how they knew their teachers' expectations, and reported that students detected the expectations from teachers' verbal content; from the marks and grades their teachers assigned; from instructional design, such as ability grouping; from the learning experiences the teachers delivered; and from the personal relationship that the teachers built with students. In a large sample of Israeli classrooms, students' perceptions of teacher differential expectations were also very clear and consistent. In a series of Babad's studies (1990, 1996, 1998), he found that students had sensitive and accurate perceptions of teachers' differential learning support, emotional support, and pressure applied to low and high expectancy students respectively. Teachers were systematically perceived as providing low expectation students with more learning

support and less academic pressure. On the other hand, teachers were systematically

perceived as giving more emotional support to, and making higher academic demands

of, high expectation students.

As well as interpreting teacher expectancy cues from teachers' verbal

interactions, students can also interpret teacher expectancy cues from teachers'

nonverbal behaviours. In further studies conducted by Babad and colleagues (Babad,

Avni-Babad, & Rosenthal, 2003; Babad et al., 1989a, 1991; Babad & Taylor, 1992) of

student perceptions of teachers' nonverbal behaviours, the researchers documented

that students could detect teacher cues from very short video clips (10 seconds) of a

teacher talking to and with, or even just about, a high or low expectation student, and

they could distinguish teachers' expectations even when they did not understand the

language of the teacher in the video or when the audio sound was distorted. It was

argued by the researchers that students perceived and interpreted teacher expectations

by picking up teachers' negative affect from teacher facial expressions and body

language (Babad et al., 1989a), and the subtle signals of exaggeration and implied

hypocrisy teachers demonstrated when they appeared to treat low expectation students

in a warm and supportive manner (Babad et al., 1991; Babad & Taylor, 1992).

It can be concluded that students are highly sensitive to teacher expectations.

Students can perceive what their teachers expect through teachers' verbal and

nonverbal behaviours, even though teachers attempt to control or conceal their

expectations. Students then interpret their teachers' expectations. Generally, students

can accurately interpret teacher expectations; for example, they commonly distinguish teachers' differential expectations towards high and low achieving students. However, the accuracy of such interpretations may vary across different students.

   Student differences in interpreting teacher expectations. Perceptions of others are jointly determined by characteristics of both the perceiver and the perceived; that is, perceptions of teacher expectancy cues are the joint result of both teacher and student (Weinstein, 1985). However, there are few findings to date on how students may differ in their interpretations of teacher behaviours, in their incorporation of teacher expectation cues and in their responses to teacher expectations. Students may make different interpretations of teacher behaviours depending on students'personal traits. Researchers have stated that some students are more sensitive to voice tone or other subtle communication cues (e.g., Conn, Edwards, Rosenthal, & Crowne, 1968; Zuckerman, DeFrank, Hall, & Rosenthal, 1978). For example, some academicians (Davidson & Lang, 1960; Hayes & Richardson, 1995) believe that student gender and socioeconomic status play a role in interpreting teacher expectancies, and argue that girls and students with higher socioeconomic status tend to perceive their teachers' meaning more positively. Some findings have focused on different interpretations of students with different academic achievement. It has been found that low reading group members are more likely to perceive the teacher as treating different groups similarly (Clément, Gainey, & Malitz, 1980), and low achievers are more likely to view standardised examples of praise as instructional procedure rather than deserved

(Morine-Dershimer, 1982). In addition, students of higher grade level are found to be more likely to form negative perceptions of the teacher and the class (Santhanam & Hicks, 2002). Given the previous inconclusive findings, however, we still know little about what makes some students more sensitive to expectation cues. It seems that there is an interpersonal difference in student interpretation of teacher behaviours and teacher expectancy, and such differences may shape student responses, which in turn contribute to the salience of teacher expectation effects.

Student responses to perceived teacher expectations. Even with similar perceptions of teacher behaviours, students may choose to respond or not to expectancy cues, and their performance and outcomes may develop toward or away from teacher expectations. There are individual differences in student reactions to teacher expectations, and previous research has proposed some factors which may affect student susceptibility to perceived teacher expectations, such as student gender, ethnic group, and socioeconomic status (see previous sections).

How students might respond in light of their awareness of teacher expectations reflects the debate in the expectancy literature about the direction of expectancy effects. There has been a long-time dispute about whether teacher behaviours shape students' reactions in line with teachers' expectancies or student behaviours influence teacher expectations. Early research (see Brophy, 1983 for a review) was in favour of student influence on teacher expectations. It was argued that teacher expectations

were mostly accurate and based on student information, and that "most of the inaccurate ones are corrected" (p. 636) when more student information became available. However, some more recent findings have provided support for a stronger effect from teacher to student than the opposite. Gill and Reynolds (1999) surveyed fourth-grade teachers and their 712 students, and found that teachers had a larger direct effect on student performance in reading and mathematics than student perceptions suggested. Weinstein and her colleague (Kuklinski & Weinstein, 2001) reported that teacher expectations had significant effects on fifth graders' self-expectations, but not first and third graders. However, teacher expectations had significant effects on student achievement at all three grades. The researchers concluded that, especially at the earlier levels, teacher expectations had more direct effects on student outcomes, while student reactions or behaviours did not function to the same extent. Rubie-Davies' study (2006) provided evidence that students' academic and non-academic self-perceptions at the end of the school year varied in line with the students' perceptions of teachers' expectations, although there had not been significant differences in student self-perceptions at the very beginning of the school year. It seems that the changes in student self-expectations, self-perceptions and academic performance all come to confirm teachers' initial expectations, which adds weight to the argument that the direction of the expectation effects is more salient from the teacher to the students than from the students to the teacher.

Most previously reviewed research has focused on teacher expectation effects for individual students, namely teachers' differential expectations and treatment towards particular students, and consequently individual students' different outcomes. However, apart from teacher–student dyadic interactions, whole-class instruction is also a common phenomenon in classrooms. Hence, more generalised teacher expectation effects became the next consideration in this literature review.

Generalised Teacher Expectation Effects

Researchers have contended that teachers may hold expectations for all students in the class in addition to any expectations held for individual students, and that such expectations for the whole class may interact with the expectations for individuals or they may function separately (Rubie-Davies, 2008a). Some researchers have proposed that self-fulfilling prophecies may be more powerful for whole classes than for individual students (e.g., Brophy, 1983; Jussim & Fleming, 1996). Brophy (1983) has asserted that "Differential teacher treatment of intact groups and classes may well be a much more widespread and powerful mediator of self-fulfilling prophecy effects on student achievement than differential teacher treatment of individual students within the same group or class" (p. 309). It has been argued that teacher expectation effects for the whole class may be more powerful because teachers spend much more time addressing their classes as a whole than they do interacting with individuals and they determine teaching activities depending on their expectations for their classes (Jussim et al., 1998; Pellegrini & Blatchford, 2000). Researchers also have suggested

how communication of expectations for the whole class would occur. For example,

Cooper and Good (1983) wrote that the expectation influence at the class level:

> may involve Rosenthal's (1974) input factor. The teacher's general
>
> expectations for the class may influence the amount of material the teacher
>
> presents and the quality of response the teacher is willing to accept before
>
> moving on to new material. It is likely that teachers who hold lower
>
> expectations for their classrooms as a whole will teach easier lessons, spend
>
> less time on rigorous academic activity and accept less than perfect
>
> performance before moving on to new or different material. (pp. 152-153)

There is a paucity of empirical studies about teacher expectation effects at the

class level. In the early 1970s, Doyle and colleagues examined the more general

expectation effects across classrooms as a part of their study (Doyle et al., 1972).

Teachers were divided into high and low groups according to their tendency to

generally overestimate or generally underestimate their students' IQs. It was found

that the high teacher group produced higher achievement in their classes than the low

teacher group who underestimated the students. The study showed that teacher

expectations not only affect the achievement of individual students but also affect the

achievement of the class as a whole. However, the methodology of this study was

questionable; for example, it adopted a rather small and single sex sample ($n = 11$, all females), and used student IQ scores as the achievement measurement.

Later on, a few studies focused on the shared low expectations of teachers for classes in particular schools (e.g., Ennis, 1998; Timperley & Robinson, 2001). In studies of American urban schools, teachers were found to hold lowered expectations for classes (Ennis, 1995; Ennis, 1998). Because of the students' low socioeconomic background, the teachers formed uniformly low expectations for student achievement. Therefore, students were given little independence and few cognitively demanding tasks; teachers spent much time in controlling student classroom behaviours; and teachers provided students with limited opportunities to work with their peers. Teachers felt unable to overcome student background influences so that their teaching efficacy declined and they were less willing to deliver innovative instruction (Ennis, 1995; Ennis, 1998). However, in these studies, low expectations were assumed from teacher behaviours, reports, and attitudes but were not empirically measured.

Another study reported similar results of normatively low teacher expectations in poor socioeconomic communities (Timperley & Robinson, 2001). It seemed that the teachers in Timperley and Robinson's study collectively blamed external factors, such as the students' and their parents' deficits, for their negative expectations of student learning. With the help of a professional development programme, the teachers increased their expectations for student achievement, provided more learning opportunities for their students, and changed in their attitude, beliefs and teaching

practices for the classes (Timperley & Rivers, 2003). However, this study is limited

in that it includes only three teachers. A fourth teacher appeared to have high

expectations. Further, as with the studies above, teacher expectations were not

measured in this study.

The studies reviewed above have mainly focused on teachers' low expectations

for classes, but neglected the possibility of high expectations for the whole class.

However, more recent studies have provided evidence of teachers' general

expectations, both high and low. Diamond and colleagues (2004) surveyed five

elementary schools in Chicago and found that teachers in the schools serving mostly

African American, Latino American, and low-income students commonly held low

expectations, while in schools serving mostly Asian American, European American,

and middle-class students, teachers held high academic expectations. Such shared

expectations and beliefs has an effect on teachers' responsibility for all students'

learning (Diamond et al., 2004), student opportunity to learn, and quality of

instruction (Tate, 2005). Rubie-Davies' research has more convincingly identified

teachers' uniform expectations for the whole class which were either exceptionally

high or low (Rubie-Davies, 2008a; Rubie, 2004). Her research investigated teachers

and their students with various demographic characteristics from schools with

different academic and social features, and found that teachers were likely to hold

uniform expectations for all the students in the class at the beginning of the new

school year. Rubie-Davies has argued that teacher expectations were related to

individual characteristics of the teacher more than to those of the students, and that such class-level expectations were shaped by teacher beliefs about teaching, learning, and students (Rubie-Davies, 2008a).

Some studies have further examined the relationship between generalised teacher expectations and student average achievement. For example, Rumberger and Palardy's (2005) analysis of longitudinal data showed that in schools with high teacher expectations, students had high rates of completion of homework and enrolment in advanced courses, and high performance in reading and mathematics. In Rubie-Davies's studies (2008a; 2004) , it has also been found that classes with high expectation teachers acquired more academic gains than classes with low expectation teachers in reading and physical skills after one school year, which indicated a self-fulfilling prophecy effect. Archambault and colleagues (2012) explored teacher expectations as a class-level predictor, assessing the effects of teacher expectancy on classroom outcomes. Their analysis demonstrated that the more teachers maintain high expectations and high efficacy, the more students' achievement increased over the year. In conclusion, the authors appealed for special efforts to be made to help teachers develop positive expectations towards all students (Archambault et al., 2012).

Further exploration into generalised teacher expectations and their effects on student outcomes is needed. Some limitations of previous related research have restricted the generalisation of findings. The samples of some studies were composed of teachers and students from schools with particular demographic features, such as

schools serving low socioeconomic areas (e.g., Archambault et al., 2012); some

studies recruited a small sample size (e.g., Timperley & Robinson, 2001); and most

studies only focused on major curriculum areas such as reading and mathematics (e.g.,

Rumberger & Palardy, 2005) or focused on one school level (e.g., Rubie-Davies,

2008a). Future studies could involve a larger sample of teachers and students with

different demographic characteristics, and explore other curriculum areas which have

been little studied in the expectancy field.

The Current Research

The research for this thesis aimed to further investigate generalised teacher

expectation effects. It placed more emphasis on what has not been explored in

previous literature. First, it focused on teacher expectation effects in a new context,

the tertiary level. Second, it explored expectations within a foreign language

classroom and a curriculum area which have not been studied within the teacher

expectation field before. Third, the research attempted to examine teachers'

normative expectations for multiple classes, including their effects on overall student

achievement and possible mediating mechanisms; to date there has been no similar

study exploring teacher expectations of multiple classes with the same teacher.

Finally, the research in this thesis highlighted the importance of the socioemotional

climate in the classroom, empirically scrutinising both the mediating and moderating

roles of classroom climate in the self-fulfilment of teachers' normative expectations.

Again, this is not an area within the field that has been previously studied. The

research background and its innovations were reported in detail in Chapter 1.

Study 1 was designed to investigate firstly whether class-level teacher

expectations were related to whole-class achievement in a College English course.

The hypothesis was that class-level teacher expectation effects could be identified for

students who learn English as a foreign language at universities. Further, the study

investigated teachers' expectations for multiple classes, and sought evidence of

normative teacher expectation effects for all the students in different classes. Hence,

the hypothesis for this part of the study was that regardless of students' varying

information, teacher expectations would remain high or low for each of their classes;

that is, expectations are teacher-centred. Some teachers may hold normatively high

expectations for all their students across different classes, while some may hold

normatively low expectations for all students across all their different classes. In

addition, it was hypothesised that normative teacher expectations would be related to

overall student achievement.

Study 2 continued to explore the mediating process of normative teacher

expectation effects. It examined how normative teacher expectations were formed,

transmitted, perceived and responded to. The hypothesis was that teachers with

differing normative expectations (high, medium and low) would vary in their teacher

beliefs, teaching practice, and interactions with students. If such differences were to

be found, this would contribute to understandings of how normative teacher expectation effects are mediated.

Study 3 focused on the mediating role of classroom climate in normative teacher expectation effects. It investigated multiple dimensions of the social and instructional environment in classrooms that have varying normative teacher expectations. As classroom climate has been proposed as an important mediator in teacher expectation effects (e.g., Rosenthal, 1974) but not fully studied, Study 3 attempted to conduct a comprehensive investigation about the personal relationships among all the participants in the classroom and the ecology of the classroom learning environment. Assuming that the classroom climate may vary in relation to normative teacher expectations, the hypothesis of Study 3 was that class climate is a potential mechanism for the mediating process of normative teacher expectation effects.

The final intention of the current research was to explore the moderating role of the classroom climate. Study 4 examined the influence of the quality of the classroom climate on the magnitude of normative teacher expectation effects. The hypothesis was that with certain classroom climates, teacher expectation cues would be more salient, students would be more compliant, and consequently more powerful teacher expectation effects would occur. A further hypothesis was that the function of the classroom climate would vary depending on the normative teacher expectations, which would suggest that the moderating effects of a particular classroom climate dimension may only operate for certain teachers.

The next four chapters in this thesis will comprise successively each of the four studies just described. Each chapter will first present the method pertaining to each study and then the findings.

Chapter 3 Study 1: Exploring Normative Teacher Expectation Effects

Study 1 was designed to explore teacher expectations and teacher expectation effects in the curriculum of foreign language learning in tertiary settings. The focus of this study was on generalised teacher expectations and their effect on all students rather than on individual students. To be specific, this study investigated class-level teacher expectations and the relation to overall class achievement, and further, each teacher's expectations and the relation to all students' achievement across multiple classes. Teacher expectations, student prior achievement and achievement at the end of the school year were collected and compared to identify the possible relationships between teacher expectations and student future academic achievement. The major hypotheses of this study were:

1. Class-level teacher expectation effects could be found in foreign language classrooms in tertiary settings.

2. Teachers may hold normative expectations for all their students in multiple classes.

3. Teacher groups who hold different normative expectations for all their students across multiple classes at the beginning of the school year would be identified.

4. Different normative teacher expectations may correspond to significantly different overall student year-end achievement in learning English as a foreign language at university.

Method

    Participants. The participants were 50 teachers (each respectively teaching one to five classes) and their 4,617 first year undergraduate students from a total of 116 classes who were learning English as a foreign language at two universities in Chongqing, China, University One and University Two. The Ministry of Education of the People's Republic of China divides all public universities in China into two sets—universities managed by the central government and universities managed by provincial governments. The division between universities is an indication of the socioeconomic and academic level of each university—University One, a national key university directly administered by the Ministry of Education, is recognised as prestigious and receives support from the central government of the People's Republic of China, while University Two, a local university, is affiliated with and supported by the city Education Commission and therefore is less prestigious than University One. The two universities offer a wide range of undergraduate programmes including programmes in arts, science, engineering, law, business, and medical care. The two universities chosen for this study are representative of most universities in China in terms of the teachers, students and curriculum settings. Both universities gave their consent to this study being conducted with their staff and students.

    The 50 teachers taught the course of College English, which is a two-year compulsory course, and completed by undergraduate students beginning in their first

year. Normally, the teacher is responsible for his or her assigned classes for two years

and gives lessons for at least 4 hours per week, which may result in a comparatively

stable interaction and relationship between the teachers and the students. The teacher

participants consisted of males and females who varied in age and teaching

experience (young and old, inexperienced and veteran); and showed a variety of

educational backgrounds (BA, MA, and PhD) (see Table 3.1).

Table 3.1

Description of Teacher Participants

University	Gender		Age				Work year			Degree		
	M	F	25–30	31–40	41–50	Over 51	1–10	11–20	Over 21	BA	MA	PhD
1	10	21	6	16	7	2	12	12	7	3	22	6
2	4	15	5	8	5	1	8	7	4	2	16	1

The students were all first-year undergraduates from the two universities and of similar age, about18. The number of male students was approximately equal to the number of female students (see Table 3.2). The students came from different areas of China, from remote country villages to metropolitan cities; and varied in socioeconomic status, including students from lower and middle class. However, students from varying backgrounds were distributed evenly across both universities. After graduating from senior high schools, these students showed different levels of academic achievement in English, which was represented by their scores in the nationwide College Entrance Examination (see Table 3.2). These first-year university students enrolled in different faculties, but all were required to attend the course of College English for two years and to take part in the College English Test, a national standardised test. They were assigned to English classes randomly and were taught by the same teacher for two years.

Table 3.2

Description of Student Participants

			Gender		Entrance Score in English			
Uni.	*N.*	Class	M	F	Min.	Max.	Mean	*SD*
1	2974	77	1366	1517	90	145	115.87	10.45
2	1643	39	813	921	90	145	116.26	10.62

Note. Uni. = university.

Mandarin Chinese is the only official language in China. Owing to geographic distance and other barriers, China has preserved her traditional and unique culture comparatively well in the process of globalisation, including preservation of the language. Mandarin Chinese prevails so much so that foreign languages are extremely rarely needed or used in Chinese daily life. However, the Chinese government has realised that this creates a language barrier to economic and social development, and hence has issued the policy that English courses are compulsory for all school attendees from elementary to secondary levels. After entering tertiary schools, foreign language courses are still compulsory for first- and second-year students; most of them still take the English course, and only a minority of students takes other foreign language courses such as French, Japanese, and Russian. Students attach great importance to these foreign language courses because their achievement in such courses is closely related to their academic success and future careers. English was chosen for this study because almost all students continue learning English during their study in university.

To sum up, each class in this study was made up of teachers of different backgrounds and students with various characteristics and different prior achievement in English; the classrooms and the teachers were the main sources of English for the students; and the students were very keen to learn English as a foreign language.

Measures. Teacher expectations, student prior achievement and achievement at the end of the school year were measured.

University entrance examination. All students are required to sit the University Entrance Examination if they wish to receive tertiary education after graduating from secondary school. The University Entrance Examination is a nation-wide standardised test which consists of three compulsory subjects (Mathematics, English and Chinese) and two optional subjects. The full score for each compulsory subject is 150, and after the examination the Ministry of Education will establish a qualifying score as the criterion for university admission. Only students whose overall scores for the five subjects are above the national qualifying score can be admitted by universities and colleges. Students who score more than 90 in English can continue to take the English course; those who score less than 90 are advised to learn a new foreign language such as Japanese and Russian. In this research, student entrance scores in English were used and interpreted as student prior achievement in learning English as a foreign language.

College English Test Band 4. According to China's higher education policy, all university students are required to attend the College English Test Band 4(CET-4) which examines English language proficiency. Only those who have passed CET-4 are qualified to receive their academic degrees. The College English Test is a national standardised test, in which participants are graded from 220 to 710. Students who score more than 430 pass the test. According to the syllabus, after a process of weighting and equivalence, the original score is transferred to be a constant modal normal score with a mean of 500 and a standard deviation of 70. The test is held

twice a year, in the middle and at the end of the school year. Before graduation, students can decide when and how many times to take the test. Usually students will attempt the test at the end of their first school year. However, whether they have passed the CET-4 or not, students are all required to finish the two-year compulsory College English Course. In this research, student scores in CET-4 at the end of the first school year were used and interpreted as their achievement in learning English as a foreign language at the end of that first year.

Teacher expectation scale. At the beginning of the school year, within three weeks after meeting their new students, the teacher participants were asked to respond to the Teacher Expectation Scale. The scale covers CET-4 scores from 430 to 570, divided into nine levels, in which Level 1 is a student score below 430, Level 2 is a score between 430 and 450, Level 3 is between 451 and 470, Level 4 is between 471 and 490, Level 5 is between 491 and 510, Level 6 is between 511 and 530, Level 7 is between 531 and 550, Level 8 is between 551 and 570, and Level 9 is above 571. The teachers were asked to predict which level each of their students would achieve at the end of their first school year. The teachers' responses were then used and interpreted as teacher expectations for students' later achievement in learning English as a foreign language. A copy of the Teacher Expectation Scale is in Appendix B.

Data collection. In October 2011, when the new students entered the two participating universities (University One and University Two), the grades they had achieved for English in the national University Entrance Examination were collected

by the universities and given to their teachers of the College English Course. Within

three weeks, the participating teachers were asked to respond to the Teacher

Expectation Scale. At the end of the school year, June 2012, all the students sat the

College English Test Band 4 (CET-4), and in July 2012, their scores in CET-4 were

reported to the researcher with the permission of the universities and students

themselves.

Results

The means for each class's previous and later achievement in English were

calculated—previous achievement was represented by student entrance examination

scores, and later achievement was graded by student CET-4 scores (see Table 3.3).

Table 3.3

Description of Class-level Teacher Expectations, Student Entrance and CET-4 Scores

Scores by class	Min	Max	*M*	*SD*
TEs	1.25	5.58	3.34	1.03
Entrance score	108.46	122.00	116.10	2.26
CET-4 score	401.65	476.19	437.04	14.69

Note. TEs = teacher expectations.

Teacher expectations for each class were rated by the means of teacher

expectations for all students in the classes. The means of teacher expectations for 116

classes are shown in Table 3.4.

Table 3.4

Teacher Class-level Expectations for Each Class

Teacher	Class	TEs	Teacher	Class	TEs	Teacher	Class	TEs	Teacher	Class	TEs	Teacher	Class	TEs	Teacher	Class	TEs
1	13	2.18	2	49	2.83	3	57	2.36	4	63	3.53	5	66	2.65	6	69	2.97
	50	2.07		53	3.26		67	2.82		72	3.03		70	2.58		74	2.36
	59	1.55		80	3.15		78	3.06		81	3.91		82	2.41		85	2.39
	79	1.82		91	3.06		83	2.17		97	3.64		87	2.62		95	2.71
	93	2.16		94	3.12		88	2.06									
7	34	5.35	8	96	2.51	9	51	3.79	10	56	2.84	11	56	2.84	12	52	3.43
	84	5.58		110	2.55		76	3.69		86	2.98		86	2.98		61	3.22
13	6	2.13	14	14	1.80	15	9	3.55	16	12	3.77	17	42	2.56	18	15	4.22
	62	1.50		21	1.83		36	3.57		29	4.35		117	2.74		102	4.44
	77	1.93		26	2.31		55	2.97		54	4.08		126	2.10		108	4.33
	89	1.29		46	1.25												
19	64	3.70	20	2	3.26	21	25	3.24	22	1	3.42	23	20	4.52	24	5	4.86
	65	3.53		37	3.75		43	3.25		98	3.60		92	5.10		8	4.79
	75	3.48		113	3.27		118	4.29								48	3.93
25	19	4.36	26	73	4.89	27	4	3.63	28	13	5.05	29	112	3.78	30	119	3.57
31	22	2.96	32	99	1.31	33	45	2.41	34	24	3.35	35	7	3.38	36	3	4.98
	107	2.91		115	1.70		106	2.52		120	3.54		44	3.10		38	4.51
37	10	5.25	38	122	2.83	39	23	4.25	40	30	4.05	41	36	3.14	42	11	2.62
	33	5.08		127	3.33		105	4.72		68	3.29		111	3.02		16	2.80
43	109	4.75	44	47	2.96	45	126	4.63	46	23	4.25	47	101	4.59	48	100	2.39
49	31	4.06	50	17	3.89					103	4.72		116	5.15		114	2.30

To determine if class-level teacher expectations differed across classes, a cluster analysis was run in SPSS 20.0. Cluster analysis is a group of multivariate techniques, the primary purpose of which is to group objects based on the characteristics they possess (Hair, Black, & Babin, 2009). Cluster analysis creates new groupings without any preconceived notion of how many and what clusters may arise; it classifies clusters which exhibit high internal (within-cluster) homogeneity and high external (between-cluster) heterogeneity (Burns & Burns, 2008; Hair et al., 2009). Cluster analysis was chosen in this study to group the teacher expectation means for the 116 classes, since there was no prior knowledge of how many clusters there might be or what they would be characterised by.

Ward's method, a very efficient and the most commonly used method, was chosen to identify the optimal number of clusters; this method assesses cluster membership by calculating the total sum of squared deviations from the mean of a cluster (Burns & Burns, 2008; Hair et al., 2009). The agglomeration schedule provided a solution for every possible number of clusters from 1–116 (the number of classes). The changes in heterogeneity between cluster solutions can be calculated. The basic rationale was that when larger increases in heterogeneity occurred in moving from one stage to the next, the prior cluster solution should be selected because the new combination would join quite different clusters (Hair et al., 2009). After rewriting the coefficients as in Table 3.5, it became easier to see the changes in the coefficients as the number of clusters increased.

Table 3.5

Agglomeration Table of Clustering Teacher Class-level Expectations

Stage	Number of clusters	Agglomeration coefficient last stage	Agglomeration coefficient this stage	Difference
115	1	—	120.85	—
114	2	120.85	47.34	73.51
113	3	47.34	16.78	30.57
112	4	16.78	11.66	5.12
111	5	11.66	7.08	4.58
110	6	7.08	4.56	2.52

The coefficient differences in Table 3.5 suggested that the plausible solution was to cluster the classes into three groups, as succeeding clustering added much less to distinguishing between cases. Since the optimum number of clusters was decided, the clustering was rerun using the *k*-means clustering method with the chosen number, which would produce the exact *k* different clusters demanded of greatest possible distinction. In this research, a three-cluster result applied to all the cases.

Thus, three groups of classes were identified. The means for teacher expectations, student entrance scores and CET-4 scores for each class group are shown in Table 3.6. An ANOVA was run to test the teacher expectations that each class group received, and statistically significant differences were found between

groups (F (2, 113) = 355.946, p< .001). The post hoc Scheffétest showed that there

were statistically significant differences between the expectations for Low expectation

classes and High expectation classes (p <0.001), between Low expectation classes and

Medium expectation classes (p <0.001), and between Medium expectations and High

expectation classes (p <0.001). That suggested that classes in different groups may

experience significantly different levels of teacher expectations. Hence, the three

class groups were regarded as Low, Medium and High expectation classes in

accordance with the low, medium and high teacher expectations held for each class.

Table 3.6

Entrance Score, Teacher Expectation and CET-4 Score Means for Class Groups

Class group	Entrance score	Teacher expectations	CET-4 score
Low expectation class($n = 35$)	115.78 (1.80)	2.17 (0.43)	426.58 (10.44)
Medium expectation class($n = 50$)	115.85 (2.45)	3.33 (0.33)	434.96 (11.86)
High expectation class ($n = 31$)	116.85 (2.32)	4.69 (0.40)	452.23 (10.06)

Note. *SD* values are presented in the brackets beside mean values.

When student entrance scores were compared across class groups, there were

no statistically significant differences (F (2, 113) = 2.405, p < .10). Hence it can be

stated that there were no group differences in student prior achievement for each class at the beginning of the school year.

At the end of the school year, the CET-4 scores for each class across the three groups were also examined. The one-way ANOVA results showed that there were statistically significant differences between the groups (F (2.113) = 46.405, $p < .001$). The post hoc Scheffé test showed there were statistically significant differences between Low expectation classes and High expectation classes ($p < 0.001$), between Low expectation classes and Medium expectation classes ($p < 0.005$), and between Medium expectation and High expectation classes ($p < 0.001$).

Although there was similar achievement at the beginning of the school year, by the end of the year, classes with low teacher expectations scored much lower than those with comparatively higher teacher expectations, while classes with high teacher expectations exhibited significantly greater gains than other classes. These findings suggested that the class-level teacher expectations may have played a part in enhancing overall class learning; therefore teacher expectation effects at the whole-class level can be surmised.

Most of the teachers (n = 39) in the current study were lecturing more than one class, and the remaining 11 teachers were each responsible for one class only. To investigate whether the teachers differed in their expectations for different classes or not, an ANVOA examined each teacher's expectations for multiple classes (see Table 3.7).

Table 3.7

ANOVA of Each Teacher's Expectations for Multiple Classes

Teacher	*df*	F	*Sig.*	Teacher	*df*	F	*Sig.*	Teacher	*df*	F	*Sig.*
1	183	1.226	.301	14	63	0.046	.831	27	129	0.718	.490
2	182	.523	.719	15	61	0.130	.720	28	98	1.161	.317
3	74	.221	.639	16	159	1.340	.265	29	62	1.377	.245
4	69	.035	.852	17	73	1.534	.219	30	132	0.108	.897
5	131	1.367	.256	18	94	.088	.767	31	61	0.054	.817
6	51	.049	.952	19	79	.125	.725	32	92	2.079	.153
7	136	.268	.849	20	97	0.015	.903	33	103	0.180	.672
8	127	1.883	.117	21	92	3.353	.070	34	103	1.179	.280
9	141	1.043	.375	22	106	2.255	.110	35	91	1.516	.221
10	79	.058	.810	23	70	0.105	.747	36	101	0.077	.782
11	111	1.816	.148	24	97	0.232	.631	37	132	0.750	.474
12	75	.103	.749	25	94	0.375	.542	38	112	0.274	.602
13	87	2.196	.142	26	121	2.626	.076	39	154	2.281	.081

As there were no statistically significant differences for each teacher's

expectations for multiple classes, the findings showed that teachers were likely to

hold normative expectations for all students even in different classes. The teacher

expectation data were aggregated by teacher and compared to find possible patterns.

Looking at the means for each teacher's expectations, which ranged from 1.53 to 5.25,

it seemed that teachers with differing normative expectations could be grouped into

different clusters. That is, despite a wide range of teacher expectations across all the

50 teachers, some teachers appeared to hold similar expectations and hence, it was

possible to group them in relation to their expectation levels (see Figure 3.1).
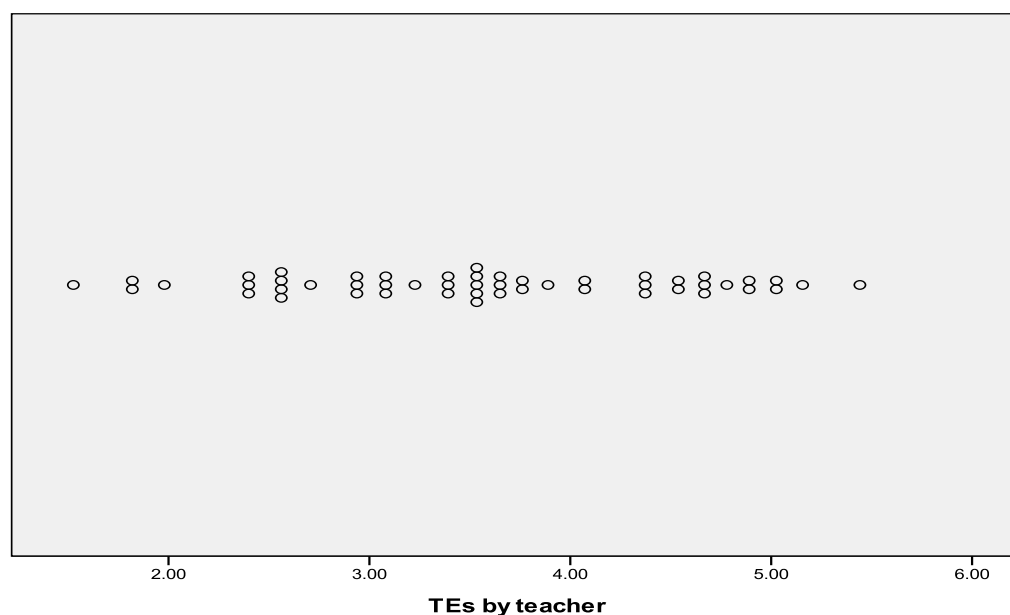
Figure 3.1 Distribution of the means for the expectations of 50 teachers. TEs =

teacher expectations.

To identify possible numbers of clusters, hierarchical clustering was run in

SPSS 20.0 to aggregate the 50 teachers into groups according to the normative

expectations each teacher held for all the students across all of his or her classes.
Ward's method was again chosen to assess cluster membership (Burns & Burns, 2008; Hair et al., 2009), and it provided a solution for every possible number of clusters from 1–50 (the number of all cases). The agglomeration coefficients were rewritten and are presented in Table 3.8 to show the changes in the coefficients as the number of clusters increased.

Table 3.8

Agglomeration Table of Clustering Teacher Class Expectation Means

Stage	Number of clusters	Agglomeration coefficient last stage	Agglomeration coefficient this stage	Difference
49	1	—	44.37	—
48	2	44.37	13.89	30.47
47	3	13.89	4.68	9.21
46	4	4.68	2.59	2.10
45	5	2.59	1.72	0.87
44	6	1.72	1.16	0.57

The coefficient differences in Table 3.8 suggested that the plausible solution was to cluster teacher expectations into three groups, as succeeding clustering added much less to distinguishing between cases. Then the clustering was rerun using the *k*-means clustering method which produced three different clusters of teachers with distinguishable expectations.

There were 12 teachers in Group One, 23 teachers in Group Two, and 15 teachers in Group Three. These three teacher groups showed varying levels of expectations for student year-end achievement (see Table 3.9). The teacher expectation mean for Group Two was close to the mean for all the teachers, while Groups One and Three had expectation means more than one point lower or higher than the general mean. By running a one-way ANOVA, it was found that there was a statistically significant difference between the three teacher expectation groups ($F (2, 47) = 174.241$, $p < .001$) in their prediction of student year-end achievement. The post hoc Scheffé test showed that the expectations held by the three teacher groups were significantly different from each other (all $p < .001$). The mean for Group Three was greater than that for Groups One and Two, and the mean for Group Two was greater than that for Group One. Hence, the three teacher groups could be defined as the Low expectation teacher group (Group One), Medium expectation teacher group (Group Two), and High expectation teacher group (Group Three).

Table 3.9

Clustering Result for Teacher Expectation Groups

Clustering result	All teachers	Teacher group		
		Low expectation	Medium expectation	High expectation
N	50	12	23	15
M of TEs (SD)	3.57 (0.98)	2.28(0.39)	3.47(0.34)	4.76(0.31)

Note. TEs = teacher expectations.

The demographic features were summarised in relation to the teacher groups. The distribution of teacher gender, age, work experience and educational background for each teacher group are presented below (see Table 3.10).

Table 3.10

Descriptions of High, Medium and Low Expectation Teacher Groups

Teacher group	Gender	Age				Work year			Degree		
	M/F	25–30	31–40	41–50	Over 51	1–10	11–20	Over 21	BA	MA	PhD
Low	5/7	2	3	5	2	3	3	6	3	8	1
Medium	7/16	2	16	4	1	8	13	2	2	18	3
High	2/13	7	5	3	0	9	3	3	0	12	3

Note. Low = Low expectation teacher group; Medium = Medium expectation teacher group; High = High expectation teacher group.

Almost half of the teachers adopted medium expectations for student future outcomes. A minority of the teachers held exceptionally high or low expectations for their students, and low expectation teachers were fewer than high expectation teachers. A similar distribution of high, medium and low expectation teachers has also been found in previous research (Rubie-Davies, 2006, 2010).

According to the demographic characteristics of the teacher groups (see Table 3.10), it can be seen that there was a trend for male teachers to hold comparatively lower expectations since the Low expectation teacher group consisted of approximately equal numbers of male and female teachers, and the proportion of male teachers decreased as teacher expectations became higher. For the Low expectation teacher group, there was a trend for most members to be in their 40sforties, and to have more than 21 years' working experience. In the Medium expectation teacher group, it seemed that most members were 31 to 40 years old (no one was over 51), and had 11 to 20 years working experience. Among teachers who held comparatively higher expectations, it appeared that most of them were less than 30, and possessed less than ten years' work experience. There seemed no obvious pattern in teacher educational background, as most teachers across all three groups had an MA degree. However, an interesting trend was that those with BA degrees were located only in the Low or Medium expectation groups with none in the High expectation group, while there was a trend for those with the highest degrees (PhD) to be in the Medium or High expectation groups, with only one in the Low expectation group.

It appeared that teachers with lower expectations were more likely to be older and more experienced instructors, and younger and less experienced teachers were more likely to hold relatively higher expectations. Furthermore, there were possibly more teachers with lower education degrees in the comparatively lower expectation groups, and more teachers with higher degrees in the higher expectation groups. However, the sample sizes of some teacher characteristics groups were small and disproportionate; for instance, there were only three teachers who were more than 51, and only five teachers who had just a BA degree, so statistical difference analyses were not run for this aspect of this study; this may be a focus of future research.

The next step was to determine if there were self-fulfilling prophecy effects of normative teacher expectations for first-year undergraduate students learning English as a foreign language. One-way ANVOA analyses were conducted to examine possible student achievement changes over the school year by teacher groups. Table 3.11 presents the means and standard deviations for student scores at the beginning and end of the school year in the standardised English examinations, by Low, Medium and High expectation teachers.

Table 3.11

Student Entrance and CET-4 Scores by Teacher Expectation Groups

	Entrance score		CET-4 score	
Students in teacher group	*M*	SD	*M*	SD
Low expectation	115.53	1.23	428.21	7.37
Medium expectation	116.22	1.75	437.39	10.39
High expectation	116.84	2.64	452.19	10.03

Table 3.11 shows that the means for student entrance scores for the different

teacher groups were very close to each other. The entrance score mean of the High

expectation teacher group was slightly higher than that of the other two groups, but

the difference was very small. The one-way ANOVA confirmed that there were no

statistically significant differences in student entrance scores between the three

teacher expectation groups (F (2, 47) = 0.685, p = .51).

At the end of the school year, however, student achievement was tested again

with CET-4, and a one-way ANOVA was conducted to examine whether there was

any statistically significant change in student year-end achievement by different

teacher expectation groups. It was found that differences in student year-end

achievement were statistically significant between the Low, Medium, and High

expectation teacher groups (F (2, 47) = 21.712, p < .001). The post hoc Schefférest

further found that students who were taught by Low expectation teachers scored lower

in CET-4 at the end of the year than students with Medium expectation teachers (*p*

< .05). Also, there was a statistically significant difference in CET student scores between Low and High expectation teacher groups at the end of the school year (*p* < .001). The findings indicated that students in the classes of Low expectation teachers scored less than students with Medium and High expectation teachers in CET-4 by the end of the year. Also, the difference between Medium and High expectation teacher groups was statistically significant (*p* < .001) with the scores of the High expectation group students being higher than those of the students with Medium expectation teachers at the end of the year.

Discussion

Class-level teacher expectation effects. Previous research in the area of teacher expectation effects has usually looked into varying expectations that the teacher holds for different individual students (Babad, 1995; Rosenthal & Jacobson, 1968; Smith et al., 1998; Weinstein et al., 1982). However, it has also been stated by Brophy (1983, 1985) that teacher expectations towards intact classes may generate much more widespread and powerful self-fulfilling prophecy effects. Recently there have been some empirical studies focusing on class-level teacher expectations which have identified the effects of uniformly high or low teacher expectations for the achievement outcomes of whole classes (e.g., Rubie-Davies, 2006, 2008a). The current study showed the different effects for the overall class achievement of classes for whom teachers held low or high class-level expectations. The consequent overall achievement of classes receiving high or low expectations differed despite an initial similarity in achievement. Generally, the overall class achievement varied in line

with class-level teacher expectations by the end of the school year. This suggests that class-level teacher expectations had self-fulfilling effects on the overall class outcomes.

Previous research has accounted for how teacher expectations for the whole class may function, and has pointed out that class-level teacher expectations may influence the learning opportunities provided to students, including the type and quality of learning tasks the teacher plans for students in the class (Rubie-Davies, 2007, 2008a). Also, class-level teacher expectations possibly create differing classroom climates that every student would perceive and experience by virtue of being a member of that class (Rubie-Davies & Peterson, 2011). That is to say, teachers' expectations for the whole class probably apply to the instructional activities, classroom climate, and student self-perceptions, which ultimately lead to teacher expectation effects (Rubie-Davies, 2006, 2007, 2008b; Rubie-Davies, Hattie, Townsend, & Hamilton, 2007).

Normative teacher expectations for multiple classes. Previous research into teacher's class-level expectation effects has examined the teacher expectation effects of one teacher with one particular class, and identified teachers' normative expectations for all students in the class (Rubie-Davies, 2006, 2008a). In the current study, most teachers were responsible for more than one class, and the findings showed that the teachers' expectations for their different classes did not vary significantly. When a teacher held particular class-level expectations for one class, it seemed that he or she held similar class-level expectations for all their other classes.

This is an important finding as the examination of one teacher's expectations across multiple classes has not previously been tested in the literature. The pervasiveness of teacher expectations suggests that teacher factors may play a role in teachers forming their expectations, because the findings of this study indicate that teachers are likely to maintain their expectations no matter what classes they are faced with.

The findings of normative teacher expectations for multiple classes adds weight to the argument that teacher expectations for whole classes are a teacher factor (Rubie-Davies, 2007, 2008b, 2010). It seems that the expectations that the teacher holds are related to teacher characteristics rather than to student characteristics. Teachers' normative expectations for different classes will be explored in detail in later chapters.

Teacher groups with differing expectations. At the beginning of the school year, students were assigned randomly to classes taught by teachers with different expectation levels. Based on similar student demographic characteristics and earlier achievement in English, the teachers showed significantly different levels of expectations for students' later outcomes in CET-4. Though earlier research findings have shown that teachers may form their expectations towards students mainly on the basis of teacher beliefs, teacher behaviours, and student previous achievement (Good & Brophy, 2009), it seems that teacher expectations can be moderated depending on the characteristics of the teachers and that their expectations may not be based strictly on student previous achievement. Previous research has also found that teacher personal characteristics such as their work experience, motivation, subject knowledge,

beliefs about their role, teaching efficacy, and locus of control, may vary in line with their expectations for student learning (Brophy, 1983, 1985; Brophy & Good, 1970; Flowerday & Schraw, 2000; Good, 1987; Good & Brophy, 2009; Jussim et al., 1998; Rubie-Davies, 2008a), so teacher beliefs and personal characteristics can moderate their expectations. Possibly, teachers in this study formed different levels of teacher expectations as a result of individual differences in their beliefs and characteristics. The beliefs and characteristics of teachers with varying expectation levels will be further investigated in later chapters.

Normative teacher expectation effects. At the end of the school year, after being taught by teachers within Low, Medium and High expectation groups respectively, student achievement in English varied significantly. For the teachers who held normatively lower expectations, their students achieved comparatively lower; while for the teachers who possessed normatively higher expectations, their students got much higher scores in the year-end test. With similar earlier achievement and demographic distribution of students with different teachers, it might be anticipated that student later achievement would have been similar too. According to this current study, the major salient variable existed in teachers' diverse expectation levels. Teachers formed different expectations for all their students, and a school year later their expectations appeared to be realised in student scores in CET-4. This suggested that normative teacher expectations were associated with student later outcomes. Moreover, the study suggests that normative teacher expectation effects probably are a function of teacher variables and teachers perhaps carry more weight in

the formation of expectations and the production of expectancy effects than other factors, such as student characteristics. It can be anticipated that various combinations of personal characteristics, beliefs, teaching efficacy and attitudes interact with teachers' expectations (Brophy, 1983). Teachers' responses to their expectations for student achievement may be operationalised through their classroom interactions, including creating a particular kind of classroom climate in their classes (Brophy, 1983; Harris & Rosenthal, 1985; Rosenthal, 1973; Rubie-Davies, 2008a; Rubie-Davies & Peterson, 2011; Weinstein & McKown, 1998), and providing varying opportunities for student learning (Rubie-Davies, 2007, 2008a). In turn, teacher expectations may have been communicated to students and accordingly, the students later show different achievement (Weinstein, 2002). The differences in student achievement in the standardised tests at the end of the school year, depending on the expectation group of the teachers, suggested that normative teacher expectations may have played a part in influencing student learning. Hence, it appears that normative teacher expectation effects were identified in this study.

Teacher expectation effects in tertiary education. There has been abundant research exploring teacher expectation effects on student learning in elementary and secondary school (Babad et al., 1982a; Brophy & Good, 1974; Clifton & Bulcock, 1987; Rosenthal, 1976; Rubie-Davies, 2008a; Rubie-Davies, Peterson, Irving, Widdowson, & Dixon, 2010; Smith et al., 1998; Weinstein & McKown, 1998), but little has been located that has taken place in tertiary institutions. The current study has provided evidence that first-year undergraduate students who achieved similarly

at the beginning of the school year scored differently in the year-end examination, with the scores for those with High expectation teachers being significantly higher than those with Medium expectation teachers, and the scores for students with Medium expectation teachers being significantly higher than those with Low expectation teachers. The achievement disparity in student year-end scores may indicate the influence of teacher expectation effects in higher education. Previous research has shown that younger students are more likely to be affected by teacher expectations than older ones (Kuklinski & Weinstein, 2001; Rosenthal & Jacobson, 1968; West & Anderson, 1976), because it seems that younger students are more likely to be dependent on the teacher for information and more likely to conform to the teacher's particular expectations, yet situational or context factors should also be considered.

This study targeted first-year undergraduate students who were just stepping into universities. These students found themselves in a brand new situation, because tertiary education was different in many ways from the education they had experienced before; for example, there were differences in instructional arrangements, learning methods, assessments and so on. Related research (Jussim, 1986; Raudenbush, 1984; Swann & Ely, 1984) has also pointed out that students, no matter whether they are elementary school students, high school or adult students, may be more susceptible to teacher expectation effects when they are transferred from familiar situations to new ones, such as starting a new school level. This may also apply to undergraduate students. As the result of inexperience, the first-year

undergraduate students were probably more reliant on their teachers' judgements and help. They may have been more likely to accept their teachers' expectations and behave in the way the teacher expected, and consequently their achievement appeared to confirm what the teacher predicted at the beginning of the school year.

The identification of teacher expectation effects for first-year undergraduate students implies that the "new situation" factor appeared to play a more influential part than the age factor in fulfilling teacher expectation effects. The influence of the "new situation" factor across different teacher expectation groups will be further explored in later chapters.

Teacher expectation effects in foreign language curriculum. While previous research has studied teacher expectation effects in specific curriculum areas, such as reading (Rubie-Davies, 2008a), mathematics (Riegle-Crumb & Humphries, 2012), or physical education (Babad et al., 1982a), no study could be located that had explored expectation effects in the subject of learning foreign languages. This study provides evidence that teacher expectations appear to play a part in influencing student achievement in learning English as a foreign language. Hence, it can be argued that teacher expectation effects also exist in the foreign language curriculum area.

One reason may be because of the pedagogical characteristics of the foreign language curriculum, in which instructional practice mainly consists of dialogue, conversation or discussion. There are more frequent and direct interactions between the teacher and students than in other curriculum areas, in which lecturing and listening are more usual instructional arrangements, particularly in China. Hence,

foreign language teachers are perhaps less able to hide their expectations and beliefs about their students, while students could perceive the teachers' attitudes more easily than they do in other learning contexts that have already been extensively examined (Babad et al., 1991; Babad & Taylor, 1992; Brattesani et al., 1984; Weinstein, 2002). In addition, it is commonly acknowledged that both cognitive and affective variables exhibit equally strong correlations with foreign language achievement (Ehrman, Leaver, & Oxford, 2003; Ehrman & Oxford, 1995; Gardner, Tremblay, & Masgoret, 1997; Krashen, 1981, 1982; Onwuegbuzie, Bailey, & Daley, 2000; VanPatten & Lee, 1990). All these related studies have emphasised the importance of affective variables and attempted to explain how they function in the process of learning a foreign language. Students who are learning a foreign language may suffer some negative effects associated with foreign language acquisition; for example, lack of linguistic self-confidence (Clément, Dörnyei, & Noels, 1994; Dörnyei, 1994), and language anxiety (Horwitz & Young, 1991; MacIntyre & Gardner, 1989, 1991; Young, 1999). Previous research in the expectancy area has found that teachers may demonstrate substantial leakage effects in affective areas, especially negative ones, even though the teachers believe that they can control their affective transmissions and conceal their feelings from their students (Babad et al., 1989a). Students' perceptions of teachers' expectancy-related behaviours appear to be accurate (Babad et al., 1991), even through nonverbal communication in a cross-cultural, foreign language context (Babad & Taylor, 1992).

It is possible that, during frequent and direct classroom interactions, teacher expectations are perceived by students, influence student affective variables in learning foreign languages, and ultimately have an effect on student later achievement. It can be hypothesised that particular teacher expectations could create a specific classroom climate where students are offered varying learning experiences and learning opportunities. The classroom climate and its relationship with teacher expectation effects will be examined and discussed in later chapters.

Furthermore, teacher expectation effects in the foreign language curriculum also can be explained by the nature of the content being taught and learnt. Research has indicated that with tasks of familiar content, teacher expectation effects are unlikely (Brophy, 1983). However, when new content is being introduced and especially when students depend on teachers as limited sources of the learning content, self-fulfilling effects of teacher expectations are probable (Braun, 1976; Brophy, 1983; West & Anderson, 1976). The current study investigated students who learnt English as a foreign language in China, and there is comparatively little chance for students to learn English from other sources than the school teacher because Mandarin Chinese is the only official language in China. Hence student learning appears rather dependent on the classroom instruction, and it can be anticipated that self-fulfilling effects of teacher expectations become likely.

Summary

Teachers were likely to hold normative expectations for all their students even in different classes. Some teachers had significantly higher expectations while some

teachers had lower ones. First-year students' year-end achievement in the College

English course was likely to correspond to teacher expectations formed earlier at the

beginning of the school year. It was suggested that normative teacher expectations

were likely to predict overall student future outcomes in foreign language curriculum

areas at university.

     The next study focused on a possible mediating mechanism for normative

teacher expectation effects. Interviews with teachers and student focus groups were

conducted and analysed. Study 2 explored the process of how the teachers developed

their normative expectations for all the students, how their expectations were

communicated to the students, and how the students perceived, interpreted, and

responded to normative teacher expectations.

Chapter 4 Study 2: Exploring the Basic Mediation Process of Normative Teacher Expectation Effects

The previous chapter explored normative teacher expectation effects for first-year undergraduate students who learned English as a foreign language. This chapter will focus on the manner in which such normative teacher expectation effects were portrayed in the classrooms. The study discussed in this chapter, Study 2, was designed to explore mechanisms for normative teacher expectation effects in relation to the groups of teachers identified in Study 1: Low expectation teachers, Medium expectation teachers and High expectation teachers. The study obtained data through teacher interviews and student focus groups. It investigated three basic phases of the mediation process for normative teacher expectation effects, including the bases on which teachers developed their expectations; the ways in which teachers expressed their expectations; and the student perceptions and responses to perceived teacher expectations. The major hypotheses in Study 2 were:

1. Teachers with different normative expectations would differ in the way in which they formed expectations for all their students.

2. Teachers with different normative expectations would differ in the way in which they communicated their expectations.

3. Students with different teachers would perceive normative teacher expectations, and respond to their teachers' expectations accordingly.

Method

Participants. The participants in this study were 20 College English course teachers from two universities in Chongqing, China, and their students (ten from each teacher) who were first-year undergraduates and were learning English as a foreign language. The 20 teachers were randomly selected from the three teacher groups identified in Study 1: seven from the Low expectation teachers, six from the Medium expectation teachers, and seven from the High expectation teachers. These teachers were happy to be involved in the interviews when they were told their responses would be anonymously compared and analysed, and findings would be provided for them. They considered this to be an opportunity to express their pedagogical beliefs and looked forward to possible implications for promoting classroom instruction. The demographic details for these teachers are provided in Table 4.1, along with the pseudonyms used for each teacher. All pseudonyms for High expectation teachers begin with "H", those for Medium expectation teachers begin with "M", and pseudonyms for Low expectation teachers start with "L".

Table 4.1

Demographic Details and Pseudonyms for 20 Teacher Interviewees

Teacher No	Uni.	Teacher group	Pseudonym	Age	gender	Work year	Degree
1	1	Low expectation	Lucy	Over 51	F	Over 21	BA
2	1	Low expectation	Lisa	31-40	F	11-20	MA
3	1	Low expectation	Laurence	41-50	M	11-20	PhD
4	1	Low expectation	Lincoln	25-30	M	1-10	MA
5	2	Low expectation	Lily	41-50	F	Over 21	BA
6	2	Low expectation	Linda	41-50	F	Over 21	MA
7	2	Low expectation	Leo	31-40	M	11-20	MA
8	1	Medium expectation	Mandy	25-30	F	1-10	MA
9	1	Medium expectation	Melissa	41-50	F	Over 21	BA

10	1	Medium expectation	Martin	31-40	M	11-20	MA
11	1	Medium expectation	Mary	31-40	F	11-20	PhD
12	2	Medium expectation	Molly	31-40	F	11-20	MA
13	2	Medium expectation	Maria	41-50	F	Over 21	MA
14	1	High expectation	Helen	25-30	F	1-10	MA
15	1	High expectation	Hayley	25-30	F	1-10	PhD
16	1	High expectation	Harry	31-40	M	11-20	PhD
17	1	High expectation	Hugh	25-30	M	1-10	MA
18	2	High expectation	Hilary	41-50	F	Over 21	MA
19	2	High expectation	Heather	31-40	F	11-20	MA
20	2	High expectation	Hans	25-30	M	1-10	MA

One class was randomly selected for each teacher who lectured multiple classes; if the teacher only lectured one class, then that class was included. Students were then invited from each of these 20 classes to make up a focus group for each class (that is, there were 20 student focus groups, one for each class). Because a large number of students wanted to participate in this study, of those who volunteered, a random group of 10 students from each class were selected. It was anticipated that each focus group would reflect the views of students who came from classes with differing teacher types. The demographic characteristics for each focus group are presented in Table 4.2. It can be seen that most focus groups contained equal numbers of male and female participants, and they came from various faculties of the two universities.

Table 4.2

Demographic Details of Student Focus Groups

Focus groups	Gender		Faculty/Major	Teacher No	Uni.	Teacher group	Teacher
	M	F					
L1	1	9	Arts	1	1	Low expectation	Lucy
L2	5	5	Medicine	2	1	Low expectation	Lisa
L3	5	5	Business	3	1	Low expectation	Laurence
L4	4	6	History	4	1	Low expectation	Lincoln
L5	5	5	Business	5	2	Low expectation	Lily
L6	6	4	Mathematics	6	2	Low expectation	Linda
L7	5	5	Engineering	7	2	Low expectation	Leo
M1	5	5	Physics	8	1	Medium expectation	Mandy

M2	5	5	Laws	9	1	Medium expectation	Melissa
M3	5	5	Arts	10	1	Medium expectation	Martin
M4	5	5	Medicine	11	1	Medium expectation	Mary
M5	5	5	Engineering	12	2	Medium expectation	Molly
M6	5	5	Agriculture	13	2	Medium expectation	Maria
H1	5	5	Business	14	1	High expectation	Helen
H2	5	5	Chemistry	15	1	High expectation	Hayley
H3	8	2	Engineering	16	1	High expectation	Harry
H4	5	5	Mathematics	17	1	High expectation	Hugh
H5	5	5	Education	18	2	High expectation	Hilary
H6	5	5	Arts	19	2	High expectation	Heather
H7	5	5	Laws	20	2	High expectation	Hans

Data collection. The teacher interviews were conducted twice individually. The first time was in October, 2011, three weeks after the teachers met with their new students at the beginning of the school year, and the second interview was in February, 2012 when the teachers had known the students for approximately 6 months. Teachers were interviewed in a venue where convenience and privacy could be maintained, and there was no interruption during the interviews. The two rounds of interviews were completed within one week, and teachers were asked to choose a time during the week which most suited them.

The student focus groups were conducted in February, 2012, the middle of the school year. Each focus group consisted of the researcher and 10 students. Focus groups were run in venues where convenience and privacy could be maintained, and there was not likely to be any interruption during the process. All 20 focus groups were completed within one week.

Each teacher interview lasted for approximately half an hour, and each student focus group lasted for 40 minutes. Each participant was fully informed of the purposes of the research. A standardised interview procedure was adopted to provide consistency between data collections conducted at different times and places, as well as to reduce the chance of interviewer bias in communicating with the participants (Fowler, 1990). All the interviews and focus groups were audio recorded, and later were transcribed. A range of open and closed questions was asked for the interviews

and discussions to solicit the participants' views. All closed questions included a
request for further explanation.

The interviews and focus groups were conducted in Mandarin Chinese. All the
interviews and focus groups were transcribed in Mandarin Chinese too. The
transcripts in Mandarin were coded, and some typical responses were translated into
English in order to be presented in the current study. An initial version of the
interview and focus group prompt was designed with and reviewed by researchers
skilled in qualitative methodology. The initial versions were administered to two
practising teachers and two 10-member student groups who were not involved in the
current study in order to pilot the interview protocols. There were no difficulties in
understanding or proceedings. The schedule and prompts for the teacher interviews
and student focus groups are provided below (see Table 4.3).

Table 4.3

Schedule and Prompts for Interviews and Focus Groups

Data collection	Questions/Topics
Interview I	1. What do you expect of most students' year-end achievement in CET-4?
	2. What are your expectations based on?
	3. How would you describe your ability to promote student learning?
	4. Among all the first-year undergraduates at the university, do you believe your students will perform better in the College English Test than those in other teachers' classes? Why or why not?
	5. Do you have different expectations of different classes? Why or why not?
	6. If your expectations do not predict the students' achievement, what would you do?
	7. Do you express your expectations directly to your students?
Interview II	1. Have your expectations for any of your classes changed?
	2. What made you change or hold onto your initial expectations?
Focus group	1. What are your teacher's expectations for you?
	2. How do you know your teacher's expectations?
	3. Are your teacher's expectations important to you? Why or why not?
	4. Could the teacher's expectations affect you? In what way?

Data coding. The researcher read through all transcriptions several times to become familiar with what the participants had said in the interviews and focus groups. The current study was designed to generate an explanation of the possible mediation process of normative teacher expectation effects which has not been identified in previous literature. Hence an inductive approach was used to produce substantive codes from a corpus of data, and to develop a systematic theory at a broader conceptual level (Creswell, 2005; Glaser, 1978). Grounded theory was adopted to analyse the collected data (Corbin & Strauss, 2008). The transcriptions were coded manually, following the fundamental analytic process of open, axial and selective coding. Qualitative data were given conceptual labels. Only repeated concepts were grouped together to form categories and subcategories. Further development of categories took place and subcategories related to a certain category were aggregated. Then, based on relationships and patterns among each other, all the categories were integrated and unified around the "core" category to represent the central phenomenon of the current study. The results were compared between Low, Medium and High expectation teacher groups and their students for similarities and differences. With the information developed from the data, the mediation process of normative teacher expectation effects emerged as the focus of the current study. Another researcher experienced in qualitative study coded 15% of the transcription again; an agreement rate of more than 90% between the two coding versions (Kappa = .91, $p < .001$) was achieved.

Results and Discussion

Since the teacher interviewees were selected from three teacher groups with low, medium and high expectations, and the student participants also came accordingly from the classes with the identified teachers, their views were explored mainly for comparisons between Low, Medium, and High expectation groups of teachers or students. Three themes were identified: the development of teacher expectations; the transmission of teacher expectations; and student perceptions of and reactions to teacher expectations. These are explored next.

Development of teacher expectations. The current study aimed to investigate the mechanisms for normative teacher expectation effects, so teachers' views of their expectations for all the students were solicited rather than expectations for specific individuals. Teachers were firstly asked about their expectations for student achievement in the year-end English test (CET-4). Most teachers (18 of 20), no matter from which teacher group, stated that they believed 70–80% of students would pass the test successfully after one school year. For example, Lincoln said: "*80% of my students will pass the exam if they work hard.*" Mandy stated: "*I don't worry about that … most students, 70%, I am sure can pass the test smoothly.*" Harry reported: "*I am an optimist … I lectured two classes, 80 students in total. I bet 60 of them can pass the CET-4 and hopefully some of them could score highly.*"

Exceptions were one of the Low expectation teachers, Laurence, and one Medium expectation teacher, Molly. Laurence verbally expressed exceedingly high expectations and believed "*That wouldn't be hard; at least 85–90% of my students*

will pass the CET-4." Molly held comparatively lower expectations by saying "*I don't know … I guess, maybe about half of the students could achieve that.*"

When the teachers in each group were questioned further about student achievement, differences in teacher expectations were found. Six of seven Low expectation teachers expressed their worries about student year-end achievement. Lucy said: "*Yes, most students will pass the exam, but just that. I don't think they can achieve high scores, you see, only one school year … students cannot learn a lot.*" Lisa told the interviewer: "*I guess most students would be graded between 430 to 450 in CET-4 … Trying to pass the exam is what they aim to do now! What else they can expect?*" Leo stated: "*Only a handful of students, of course the top students of the class, can get high scores*"

Five of six Medium expectation teachers seemed to exhibit somewhat higher expectations for their students, but four of them emphasised preconditions for students achieving their expectations. Mandy stated: "*Most students will pass the exam easily, and some of them hopefully will score higher than 450 if they follow teacher instructions.*" Maria responded: "*Only those who work hard can get satisfying scores.*" Martin said: "*I predict that most of them will do well in the test … of course for some students, luck is what they have to count on.*"

All the High expectation teachers appeared to report more favorable predictions for student future outcomes than the teachers from the other two groups. Helen said: "*They* [students] *will not just pass the exam … they will do a great job in it! I believe my students will perform better and achieve higher than the students with most other*

teachers." Hayley stated: "*I have every confidence in my students … it's not hard for them to get high scores in the test.*" Hans said: "*To pass the CET-4 is quite easy for the students; they will do better than that. My major job is to help more students to achieve beautiful scores.*" And Heather believed: "*Passing the exam is the minimum requirement … most students will score around 470; some of them can get even higher than 500.*"

In Study 1, teachers were classified as Low, Medium and High expectation teachers according to their responses to the Teacher Expectation Scale. The current qualitative study, Study 2, further supported the findings of the previous quantitative study that teachers may hold differing expectations in spite of similar student demographic characteristics and prior achievement. Therefore the between-group differences in teacher expectations were the first focus of Study 2. The following sections will provide further information on the bases for developing certain teacher expectations.

Bases of forming teacher expectations. The first teacher interviews were conducted between the third to the fourth week at the beginning of the 2011 school year, when the teachers did not know the students very well. When asked how they formed their expectations, the teacher interviewees provided various answers. The comparison of the teacher responses by teacher groups showed that different groups took different factors into consideration when forming expectations for their students.

Among Low expectation teachers, the most frequent answers were related to student prior achievement and their class performance. Lucy said: "*These students*

are not good, really bad … I know that from their performance in the class and their

assignments or quizzes." Lily commented: "*I checked their scores in the Entrance*

Exam … seemed okay, but not good enough." One Low expectation teacher, Lincoln,

mentioned student involvement and said: "*… they are keen in learning English, hope*

they can keep that."

Medium expectation teachers seemed to form expectations on some other

student characteristics apart from their prior achievement and current performance.

Mandy said: "*These students did well in their high school. I can see that from their*

entrance scores. In addition, I trust their personal qualities. As a university student,

one must have developed his learning styles and have had the ability for learning

autonomy." Mary stated: "*Nowadays these students realise the importance of CET-4,*

so they know they must work for it with great effort."

High expectation teachers' expectations were on a broader base than those

reported by the Medium and Low expectation teachers, and more related to the

teachers themselves. Heather said: "*Three major reasons—student entrance scores,*

performance I see in the class, and self-confidence in my abilities as a teacher!"

Harry shared: "*My expectations are based on my past experience of helping students*

with the CET-4. I know that from what the previous students achieved." Helen

reported: "*My expectations are based on what they have achieved and what I teach.*

They are quite good at reading and writing in English … and I instruct them in

learning strategies and methods. University means a new learning style, so they need

time to get to know it, and then they can perform even better." Hayley told the

interviewer: "*One thing is student scores in the Entrance Examination. The other reason is my own experience as a student; I mean my experience of attending the Entrance exam and CET-4, not too hard for me. I can go through those tests well, so can my students. I also graduated from this university, and these students can surely do what I did.*"

It seemed that all teachers within the three groups agreed that their expectations were correlated with the students' prior achievement and current performance. The differences related to what else was included. Low expectation teachers' expectations appeared to be more closely related to limited student characteristics, such as student prior achievement and current performance. Medium expectation teachers seemed to develop expectations on the basis of more extensive student characteristics, such as student motivation and cognitive abilities. High expectation teachers were more likely to be influenced by teacher characteristics other than student dimensions. Previous related research has pointed out that teachers form their expectations towards students on the basis of teacher beliefs, teacher behaviours, and student prior achievement (Good & Brophy, 2009). Study 2 found that teacher factors became more influential when teachers held comparatively higher expectations. The findings suggested that teachers' high expectations for all students were more teacher-related while teachers with comparatively lower expectations appeared to be more subject to student characteristics when forming expectations. Researchers have found that teacher personal characteristics, such as their work experience, motivation, subject knowledge, beliefs about their role, and teaching efficacy, may vary in line with their

expectations for student learning (Brophy, 1983, 1985; Brophy & Good, 1970; Flowerday & Schraw, 2000; Good, 1987; Good & Brophy, 2009; Jussim et al., 1998; Rubie-Davies, 2008a). Though teachers within the Low and Medium expectation groups barely reported teacher factors when they were directly asked about the basis for their expectations, their personal characteristics, especially their pedagogical beliefs and self-efficacy, were worthy of further investigation to see if there were any differences depending on which teacher expectation group they belonged to.

Teacher pedagogical beliefs. All the teacher interviewees expressed to some degree their beliefs about their roles, teaching and learning, and instructional practice. Some differences between teacher groups emerged regarding their pedagogical beliefs.

It appeared that Low expectation teachers commonly emphasised the teacher's role as an instructor and supervisor. They focused on what the teacher should teach and provide the students and they decided what students should learn. Lincoln said: "*I try to let them learn something that I think is useful ... I do a lot to help them. Maybe they don't fully understand now, but years later they will realise what I taught them is valuable.*" Linda said: "*I provide knowledge. I can say I am a hardworking teacher ... I don't waste one single minute in the class, trying to teach students everything I think is valuable.*" Lucy reported: "*There's a lot I need to do for them* [students], *for example, to correct their pronunciation, to drill them in listening and writing skills ... some of their basic skills need to be enhanced a lot.*" As for the student's part, Low expectation teachers laid great stress on disciplining their students. Lucy said: "*... some students listen to me carefully and follow my instructions; they*

behave well. I am very strict with my students ... I demand that everyone takes notes, and I check their notes regularly." Laurence stated: "*I lecture mainly in the way that the syllabus requires, and students must achieve what the syllabus requires ... I try to combine encouragement and supervision in my work ... one should learn with hard work; that should be encouraged.*"

Medium expectation teachers seemed to highlight the teacher's work in guiding students and they emphasised student learning autonomy. Medium expectation teachers seemed to hold the belief that teachers should be the guide for students. Mandy said: "*Teachers cannot instill all ideas into students' minds, but teachers can lead students to the sources, and let them learn in their own ways.*" Mary responded: "*Language learning is a gradual progress. The teacher's job is guiding. What I provide students mainly are necessary guidance and learning opportunities.*" At the same time, Medium expectation teachers also regarded learner autonomy as an essential part of successful education. Melissa maintained: "*I cannot just share my learning method with my students, because everyone should have his unique way to learn ... I help them to find their methods. Successful learning is fulfilled by the students themselves.*" And Martin argued: "*As university students, learner autonomy is indispensable ... if one wants to achieve something, the teacher's help is not enough, and she* [the student] *must work on her own, and work hard.*"

For High expectation teachers, it appeared that apart from learner autonomy, they also attached great importance to creating a harmonious classroom climate. High expectation teachers believed that teachers should plan instructions partially due to

students' interest and students' interest in learning could be positively associated with their academic outcomes. Six of seven High expectation teachers held the belief that good teachers should be responsible for creating a harmonious learning climate for students and a positive classroom climate could enhance student academic outcomes. Hayley maintained: "*I work for a friendly teacher–student relationship … I make my students like me. When I was a student, if I liked the teacher, I usually would put much more effort into the subject taught by him or her.*" Harry said: "*I believe the context is the most important thing in language learning … if there is a favourable climate, students will take delight in speaking and writing in the target language, and then their language competence will be enhanced naturally.*" Hugh also emphasised: "*I like to create a nice classroom climate for my students and me; we all enjoy it … I believe emotional variables and learner autonomy are more important for learning at universities* [than in high school]."

There has been little research into the role of teacher pedagogical beliefs in the teacher expectancy area. Recent research studied the interrelation between teacher beliefs and teacher expectations for student outcomes, and found that there were differences in teacher beliefs between teacher groups with high and low class-level expectations (Rubie-Davies, 2007, 2008a, 2008b; Rubie-Davies & Peterson, 2011). The current study confirmed the findings of Rubie-Davies' work (2008a, 2008b) that low expectation teachers were more likely to take a directive role, and high expectation teachers tended to adopt a facilitative role in instruction. The current study found that Low expectation teachers attached greater importance to managing

and supervising the instruction and the classroom. These teachers within the Low expectation teacher group believed learning was originated by teachers, and they decided what should be learnt by students. The current study also suggested that Low expectation teachers seemed to spend more time in regulating student behaviours and determining the way that students should learn. This was consistent with the findings of previous research that low expectation teachers appeared to take more control of what the learning tasks and opportunities were for their students to participate in (Rubie-Davies, 2008a, 2008b). Thus, the Low expectation teachers may take more responsibility for ensuring both the classroom conduct and instructional activities were organised as they wished. Contrastingly, the teachers in both the Medium and High expectation groups emphasised learner autonomy. The teachers with higher expectations held the belief that students should be self-motivated to learn and teachers should work as a guide. They were aware of the uniqueness of every individual student and they believed that their job was to help students to find out their own way to learn. These findings also add new evidence to what Rubie-Davies (2008a, 2008b) has found; that is, that high expectation teachers provide more choice of learning activities and then placed more of the responsibility for student learning on the students themselves. This implies that the learning opportunities for students would be quite different in the classes of the high expectation and low expectation teachers (Rubie-Davies, 2008a). Because the students with high expectation teachers could choose their learning opportunities, it is likely they would choose challenging activities that they enjoyed. On the other hand, because the learning activities for low

expectation students were chosen for them, it is likely students would be less interested in them and so may have been less engaged, and hence their learning opportunities may have been more limited.

The current study found that only the High expectation teachers highlighted the classroom climate in their pedagogical beliefs, and held the view that student academic achievement would be strongly affected by the socioemotional climate the students experienced in classrooms. The High expectation teachers regarded it as their responsibility to create a favourable classroom climate for student learning. In contrast, the teachers within Medium and Low expectation groups did not talk about the significance of the classroom climate in student learning. It seemed that the High expectation teachers showed much stronger incentives to work for a harmonious climate in the classroom. It can be anticipated that the socioemotional environment created by the High expectation teachers was more likely to be positive and caring than that in the classrooms with low expectation teachers. The results of previous research has also shown that high expectation teachers appear to take a more active role in promoting the socioemotional climate than either of the other two groups of teachers (Rubie-Davies, 2008a). Researchers have identified that the socioemotional climate of the classroom is particularly important in mitigating teacher expectation effects and promoting student motivation and learning (Babad, 1998; Rosenthal, 1991; Rubie-Davies, 2008a; Weinstein, 2002). A pleasant social environment in which students find themselves valued and cared for may be more likely to motivate the students to work hard in the classrooms of the High expectation teachers.

Assuming that the teachers' self-report in the interviews was accurate, it may be that the teachers with differing expectations for students have differing beliefs about delivering learning. The high expectation teachers seemed to provide more learning opportunities and give stronger motivation to their students than the low expectation teachers did, which may ultimately determine what and how their students were able to learn.

Teacher self-efficacy. The teacher interviewees within the three expectation groups were asked about their beliefs in their own abilities to promote student learning. Their answers reveal some between-group differences.

The majority of the Low expectation teachers (five of seven) held pessimistic beliefs about their teaching efficacy. Leo commented: "*I don't think highly of myself … it is impossible to anticipate my teaching to be as good as that of the professors.*" Lucy said: "*My capabilities of promoting student achievement are not that influential … I can only say that I am trying my best … and there are too many students … if I want to help each of my students, it would be too difficult. There are too many difficulties. Of course, I try my best, making all efforts to do it well.*"

The Medium expectation teachers commonly (five of six) viewed themselves as qualified teachers. The typical responses from them indicated some degree of self-efficacy. Molly said: "*I am qualified as a university teacher, and my students will learn something from my lectures.*" Mary said: "*I have some teaching abilities, but not very much … I teach them attentively; they can get something.*"

The High expectation teachers showed more confidence in their beliefs in their ability to enhance student achievement. They generally (six of seven) believed they were capable of making a positive difference for students. Harry said: "*The ability and effects of my teaching are fairly good; I can see that my students are satisfied with my work. I own the ability to create a positive classroom climate for my students which I believe is the most important in learning.*" Helen reported: "*I am capable of influencing the students, in a silent but profound way, and then they will make changes and improve.*"

Teacher self-efficacy includes a teacher's beliefs in his or her own ability to enhance students' learning and achievement (Tschannen-Moran, Hoy, & Hoy, 1998). The findings of the current study suggested that teacher self-efficacy may vary in line with teacher expectations. Low expectation teachers seemed to have lower self-efficacy that they could make a difference in student learning while High expectation teachers showed higher self-efficacy than the teachers within the other two groups. Obviously, High expectation teachers did believe firmly that they possessed the abilities to teach effectively and to help students achieve more highly; they were confident in their work and its outcomes. There has been some research investigating the interrelation between teacher self-efficacy and teacher expectations. It has been argued that the interaction between teacher beliefs, teacher expectations, and teacher efficacy could influence the teacher's planning for teaching and learning opportunities for students, and consequently student academic outcomes (Rubie-Davies, 2008a). Further investigation has also shown that teacher expectations for student learning

may be influenced by the teacher's self-efficacy for their teaching abilities (Archambault et al., 2012). The current study's findings of teacher self-efficacy, along with normative teacher expectation effects identified in Study 1, provide evidence that teachers appear to hold differing self-efficacy depending on expectation groups.

Teacher expectations for multiple classes. Most teacher interviewees (16 from 20) were lecturing more than one class, and they were asked if they held differing expectations for multiple classes. Their responses did not show common patterns across the teacher expectation groups. Most teachers (14 from 16) within the three groups stated that their expectations for different classes were similar, although they were aware of minor differences between students in multiple classes. Lily said: "*My expectations for the five classes are almost the same. There are only a few students who are exceedingly better in some classes, so for the overall class achievement I don't think there will be much difference between classes.*" Mary reported: "*I have two classes, both majoring in Science. I teach them the same content in the same way … the students from the Geography school are more proactive … but the difference in student achievement between the two classes won't be statistically significant.*" Heather stated: "*I don't see much difference between classes … in my eyes they all are second language learners, with similar competence and achievement.*"

This result confirmed what Study 1 found, indicating teachers hold normative expectations for all the students in all the classes. Most Low, Medium and High

expectation teachers all tended to form similar levels of expectations accordingly for different classes. The findings also add weight to the argument that teacher factors may play an important part in teacher expectations (Rubie-Davies, 2007, 2008a).

Stability of teacher expectations. The teachers were interviewed again in the middle of the school year when they had more knowledge about their students. Since the teachers had interacted with the students for half a school year, it was of interest to investigate whether they had changed their expectations and, why or why not.

Most teachers within the Low expectation group (five of seven) and High expectation group (six of seven) responded with unadjusted teacher expectations even though some of them were aware of the differences between their initial expectations and student actual performance. Lincoln said: "S*ome students who seem to be working hard didn't get good scores in the quizzes. But in the long run, I maintain my expectations, won't change that.*" Hans stated: "*Maybe minor changes for a few students according to their quiz scores ... but no change for the whole class.*" Some teachers chose to hold on to their earlier expectations claiming student actual performance was consistent. Hayley said: "*I won't make adjustments ... it's kind of a fixed belief. Student performance is not varying from before, no need to change my expectations.*" Lucy reported: "*My expectations are still the same. Their abilities are poor; I knew that from the beginning.*"

There were a larger proportion of teachers (four of six) within the Medium expectation teacher groups who reported a willingness to adjust their expectations. The most typical reason was the discrepancy between earlier teacher expectations and

student subsequent performance. Mandy said: "*I have to lower my expectations, because I found that they* [students] *don't understand the listening materials, don't write well, and can't express themselves efficiently … it will be a tough job for them to attend the CET-4.*" Maria said: "*They* [students] *are not as good as I expected … their performance in quizzes and oral examinations is not satisfying. What I expected was beyond their level.*" Martin stated: "*Actually my students performed a little better than I expected. They did some simulative tests online, and the results were good … happy to see that.*"

The teachers in the current study were interviewed about whether or not they would adjust instructional planning when they found their expectations did not predict student performance and achievement. It can be anticipated that the teachers with more rigid expectations would be more likely stick to their initial instructional planning, since teachers design and plan instructional activities based on their expectations for student learning (Rubie-Davies, 2007). The teacher responses showed some differences depending on teacher expectation groups.

Most teachers within the Low (five of seven) and High expectation (six of seven) groups reported that they would maintain their initial instructional designs even if their expectations did not predict student outcomes. Lily, one Low expectation teacher, said: "*If student achievement doesn't match my expectations, maybe lower or higher, I won't care. For student achievement in tests, luck is hard to predict … I will follow my plans, won't change my expectations either.*" Leo said: "*If student performance doesn't confirm what I expected, my instruction won't be*

changed, and I will insist on my approaches and style…maybe what I do is not enough, but the main reason should be that the students don't cooperate with me well." Heather and Hans, as representatives of the High expectation teachers, said: "*No matter whether student outcomes are higher or lower than my expectations, I will continue with what I have set for the teaching style and content. I won't make instructional adjustment, because if their performance is not in correspondence with my expectations, that would be a short-term condition, for example, they may have been working hard lately, so their performance would be temporarily higher than my expectations.*" Hans said: "*If the students score lower than I expected, I won't change what and how I teach, because the test scores don't affect me, no need to make any changes … if the students score higher than my expectations, especially some students who perform not well in class, but score high in the test, all I can say is they have good luck. Test scores can't reflect student actual achievement, so I won't adjust classroom instruction based on their scores.*"

The teachers of the Medium expectation group, however, all reported a willingness to adjust their instructional arrangements if their expectations were not confirmed by student outcomes. Mary said, as a typical response: "*If they perform better than what I expected, I will provide more difficult materials for learning, and set higher requirements for them … if lower than my expectations, it will be quite necessary to redesign my teaching plans, and the teaching content should also be adjusted.*"

The group pattern shown by the teacher responses seemed to indicate that the Low expectation and the High expectation teachers were more likely to maintain their initial expectations and plan instructional practice accordingly despite some indications of disconfirming evidence, while teachers with medium expectations were more likely to modify their expectations and instructional planning in the face of a discrepancy between student outcomes and their earlier teacher expectations. Previous research has argued that most teacher expectations are generally accurate, reality based, and open to corrective feedback (Brophy, 1983). Most teachers were found in Study 1 to hold a medium level of expectations for student future achievement, and from what the teachers said in their interviews in Study 2, they seemed to correct earlier expectations in accordance with daily feedback that contradicted those expectations. It also has been found that some teachers might hold more stable expectations if they are more confident in the validity of their expectations, and feel that expectations are based on stable factors (Jussim, 1986); this finding applied to the Low and High expectation teachers in the current study. It can be anticipated that students with Low and High expectation teachers would be more likely to keep perceiving unchangeable teacher expectations, and being provided with the fixed instructional activities and specific learning opportunities during their interactions with the teachers. The effect on students would be reinforced over time, which may influence student self-concept, motivation, classroom conduct and so on (Brophy, 1983; Brophy & Good, 1970; Rubie-Davies, 2008a). It has been hypothesised that the strongest teacher expectation effects are likely to be found in

teachers who hold rigid expectations and use them to guide classroom instruction and interaction (Brophy, 1985), but, few studies have attempted to link empirically the degree of stability in teacher expectations to teacher instructional patterns and to test the moderated expectancy effects. The findings of the current study and those of Study 1 provide tentative evidence that rigid teacher expectations may be coupled with fixed instructional practices and consequently predict student later achievement. Students whose teachers held low expectations scored at low levels while students whose teachers held high expectations scored well in the year-end test (see Study 1). The consistency of a discrepancy in teacher behaviours depending on teacher expectations may work as a mechanism for teacher expectation effects.

Transmission of teacher expectations. In the possible mediating process of teacher expectation effects, transmission of teacher expectations to students is an indispensable step (Brophy & Good, 1970; Darley & Fazio, 1980; Jussim et al., 1998; Rubie-Davies, 2008a). Generally, transmission of teacher expectations happens when the teacher expresses expectations verbally or nonverbally in instruction and interaction with the students. This section focuses on how teachers expressed expectations verbally, since Study 2 did not involve classroom observations or investigate the teachers' nonverbal expression of their expectations. The teachers were asked in the interview to report whether they expressed their expectations verbally and to describe the content of the verbal expression. Since this research focused on normative teacher expectation effects on all students, the teachers' expectations for the overall class rather than for individual students were of concern.

The findings showed that all the Low expectation teachers tended to express their expectations verbally to the whole class. Laurence's response was typical for the Low expectation teacher group: "*I told the class what I expect, of course, expectations for their better future. I don't talk about my expectations for specific individuals. Positive expectations are encouragement and reward for hard work.*"

Half of the Medium expectation teachers reported verbally expressing their expectations towards the whole class. Molly said: "*I tell the class my expectations, positive expectations. I told them directly that they all can pass the CET-4 without question.*"

For the High expectation teachers, most (five of seven) chose not to verbalise their expectations towards the whole class. Harry said: "*I never said anything about my expectations in front of the whole class … maybe the design and arrangement of instructional activities would tell my expectations I guess.*"

All the teachers within the three groups reported that they only verbalised positive expectations and avoided negative words in the speech content. Lily said: "*Negative expectations will hurt their self-esteem. I never say anything to beat down their confidence and initiative; that won't lead them to the right way.*" Mandy said: "*if I leak negative expectations towards students, they will hardly make advances … teachers shouldn't do that.*" And Hilary said: "*I won't tell any student that I don't expect much for him or her. Students need encouragement; therefore they are motivated to achieve higher.*"

It appeared that teachers with lower expectations were more likely to directly say what they expected in front of their students than teachers with higher expectations were. More importantly, all the teachers wished to conceal their negative expectancy from their students in their verbal speech. Teachers can carefully monitor what and how they speak to students, because verbal content has been found to be most controllable (Babad, 2009). However, teacher expectations also are communicated in nonverbal ways in teacher–student interactions (Babad et al., 1989a), and students can detect teacher actual expectations precisely even when the teachers try to conceal or control those expectations (Babad et al., 1991). Hence, the following sections will explore students' perceptions of their teachers' expectations and the students' interpretations of those expectations

Student perception of teacher expectations. Student focus groups were conducted in the middle of the school year, and topics were discussed in relation to students' perceptions of teacher expectations. When asked about the expectations the teachers held for their learning, most students with Low, Medium and High expectation teachers seemed able to detect actual teacher expectations precisely.

Students with Low expectation teachers realised that the teacher held low expectations towards their learning outcomes. A student in L1 reported: "*She believes that it will be a little hard for us to pass the CET-4.*" Another student in L2 said: "*The teacher thinks we are far below the satisfying level, and yes we are.*" Students with Medium expectation teachers reported medium level perceived expectations. One

student in M3 said: "*He thinks we are just so-so, not good, and not too bad.*" Another typical response from a student in M5 was: "*We are average students, and she knows that.*" Students with High expectation teachers also perceived the teachers' comparatively higher expectations. One student in H2 said: "*The teacher feels we are good at English; we have laid a solid foundation at high school.*" And another student in H7 responded: "*He has high expectations for us. We have a promising future.*"

The students were further asked to explain the way in which they perceived the teachers' expectations. Data showed that instructional practices were an important channel for the students to detect and interpret teacher expectations, mainly reported as teaching content, feedback, and goal setting.

The students perceived teacher expectations from what the teacher chose to teach and from the materials the teacher provided for instruction. They reported:

"*From what the teacher teaches, I would say she thinks we are still at high school level, but we have already learnt those things at high school.*" (Student in L1)

"*She just follows everything in the textbook … always emphasises and repeats, like we have difficulty in understanding and grasping that.*" (Student in M5)

"*The teacher thinks we are good, so he chooses the difficult parts in the textbook to explain and just skips the easy content … He gave us something very difficult, such as TOFEL and IELTS authentic tests. If we can do those, CET-4 would be just a piece of cake.*" (Student in H7)

The students detected teacher expectations from the teacher's feedback towards their performance and completion of assignments. They reported:

"*Whenever we finish doing something, such as a presentation or a speech, she always praises us for it … so what the teacher says is trying to encourage us. Our ability is varying, then how can one do all the jobs well, and how can everyone pass the CET-4 easily?*"(Student in L6)

"*The teacher always says 'well done', but sometimes even I am embarrassed with what I have done. I hope he can tell me directly what I need to improve. I guess he doesn't want to hurt me, but feels like I couldn't do better; that really hurts.*" (Student in M3)

"*Once I answered a question stupidly, the teacher was disappointed, I can feel that immediately...after class the teacher came to me and said she thought I should have done better, and I agreed with her … later I had a second try, she was really satisfied.*" (Student in H2)

Another frequently mentioned channel through which the students could perceive teacher expectations was the goals the teacher set for student learning. The students reported:

"*I don't think the teacher expects much for us. We even seldom have assignments … the teacher says he hopes we are just learning for fun.*" (Student in L3)

"*The teacher only encourages us to work hard, but doesn't have special requirements for us; just a guess, the teacher doesn't want to embarrass us with tough tasks, and she can work at more ease.*" (Student in M6)

"Sometimes our teacher asked us to do something that looked difficult, and we were all a bit scared, but she insisted, with force … and yes, she was right, we indeed achieved it! Look at what we can do, Amazing! [It] *seems she knows our capability better than we do.* " (Student in H1)

Teachers may design differing instructional activities depending on their expectations (Rubie-Davies, 2007). Previous research has shown (Rubie-Davies, 2007, 2008a) that teachers with different expectations differed in choosing teaching content, providing feedback, and setting learning goals. The varying instructional practice provided by the teachers within the different expectation groups meant differential learning opportunities for the intact classes. Students with high expectation teachers participated in high-level and challenging learning tasks so that they were likely to learn more than the students with low expectation teachers who were limited to low-level and repetitive tasks. Findings of the current study suggested that the students may have precisely perceived their teacher's expectations from the instructional activities that the teacher designed and through participation in the learning opportunities which the teacher generated. When the teachers supplied students with comparatively more difficult learning materials, provided matter-of-fact feedback, and set high goals and requirements for the students, their expectations were more likely to be perceived as at a higher level. However when teachers chose easy and familiar content for student learning, overstated student performance, and set low goals and requirements for the students, their expectations were interpreted as being low.

Student reactions to teacher expectations. This section will first investigate the significance of teacher expectations for the students. Then it will explore the students' reactions to teacher expectations, and whether and how the students' behaviours would or would not vary in accordance with perceived teacher expectations.

Most of the students reported that the teacher's expectations were significant to them. It seemed that the students viewed teachers as the information source for their self-confidence. One typical response from student was: "*Teacher expectations can help to build my confidence for learning at university. The teacher's opinions are professional. He is experienced and once studied overseas. I trust the teacher's evaluation.*" Meanwhile, the students appeared to accept teacher expectations as a symbol of care. One student in M3 said: "*I am concerned with the teacher's expectations. I feel the teacher cares about me so that she expects something from me.*" Furthermore, the students highlighted teacher expectations as a motive for their learning. One student in H1 gave a typical answer: "*Teacher expectations are the motivating force for learning, and those expectations urge me to work harder, try something more challenging and reach a higher level.*"

The students also reported that they would act on the teacher's interactions indicating expectations for academic performance. They said:

"*If the teacher has little expectations for my development, I will feel terrible about myself, and lose heart in learning, keep silent and kind of disappear.*" (Student in L4)

"If the teacher expects I will do better, I will more enthusiastically participate in the class. I will be more confident, and feel good with my learning and the college. I will definitely work harder and pay back her care with effort." (Student in M2)

"The teacher appreciates my work and expects a lot for me. I feel more motivated to learn. It doesn't matter whether or not I have enough capabilities now; at least I will keep working to live up to her expectations. I don't want to disappoint her." (Student in H6)

It seemed that most of the first-year undergraduate students in Study 2 attached importance to teacher expectations and were likely to behave according to what the teacher initially expected. Previous research has argued that teacher expectation effects may decline with increasing age of the student (Brophy, 1983; Kuklinski & Weinstein, 2001; Rosenthal & Jacobson, 1968; West & Anderson, 1976); however related research (Jussim, 1986; Raudenbush, 1984; Swann & Ely, 1984) has also pointed out that students, no matter whether they are elementary, high school or adult students, may be more susceptible to teacher expectation effects when they are transferred from familiar situations to new ones, such as from high school to university, as was the case for all students in the current research. The students' reports showed that the first-year undergraduate students were probably reliant on their teacher's expectations, judgement and help, because they tended to seek confidence, care, and support from their teachers when they were in this transitional phase of moving from secondary school to university. They showed a trend of accepting their teachers' expectations and behaving in the way that the teacher

expected. Consequently their performance and achievement can be anticipated to confirm what the teacher predicted at the beginning of the school year.

Summary

Study 2 was designed to investigate the mediating process of normative teacher expectation effects, focusing on the major phases, namely the teacher developing normative expectations for student later achievement, teacher expectations being conveyed and perceived by the students, and finally the students responding to perceived teacher expectations.

The study explored differences in the mediating process of normative teacher expectation effects, depending on the teacher expectation group a teacher belonged to. It seemed that the teachers who held different normative expectations for their students developed their expectations on different bases and varied in their pedagogical beliefs and self-efficacy. The teachers with differing expectations also differed in their instruction and interaction with the students. The students seemed to be able to perceive and interpret expectancy cues precisely from teachers' instructional practice. Further, the students' responses highlighted the significance of teacher expectations, and the students were likely to modify their behaviours in accordance with the teacher's expectations.

The differences between Low, Medium and High expectation teachers in forming expectations, delivering instruction, and providing learning opportunities may restrict, maintain or enhance student later achievement, which may suggest mechanisms for self-fulfilling expectancy effects of normative teacher expectations.

Teacher factors play a decisive role in such mediating process of expectancy effects, as evidenced by differences in teacher expectations, instructional practices, learning opportunities and student later outcomes depending on the teacher expectation groups to which teachers and students belonged. The findings from Study 2 add weight to the argument that teacher characteristics may largely moderate teacher expectation effects on overall student future achievement (Rubie-Davies, 2006, 2007, 2008a, 2008b; Rubie-Davies et al., 2012; Rubie-Davies & Peterson, 2011).

The mechanism explored in Study 2 mainly reflected the "input" mediator identified by Rosenthal, which focused on the direct effect of input factors on student learning (Rosenthal, 1973, 1991). The next chapter will explore the other major mediator, "climate", which may have an indirect effect on student learning (Rosenthal, 1973, 1991). The socioemotional and learning environment in the classrooms will be investigated. The different classroom climate of different teacher expectation groups may suggest another possible mechanism of normative teacher expectation effects in the foreign language classroom.

Chapter 5 Study 3: Exploring Classroom Climate as a Mediator in Normative Teacher Expectation Effects

The previous chapter explored the mediation process of normative teacher expectation effects, and focused on the direct effects on student learning by which teachers with differing expectations seemed to provide differing instructions and learning opportunities for all students, and ultimately influenced student performance and achievement. Study 3 was designed to investigate the classroom climate as a mediator in normative teacher expectation effects. Teacher interviews and student focus groups were conducted. Teachers' and students' views were solicited about their ideal classroom climate, actual classroom climate and the causes of classroom climate. Study 3 compared teachers' and students' responses in relation to teacher expectation groups (see Study 1) and explored how classroom climate factors may have mediated normative teacher expectation effects. The major hypotheses for Study 3 were:

1. Teachers with different normative expectations may hold different beliefs in relation to a positive classroom climate.

2. The instructional and socioemotional climate in the classrooms may vary depending on teacher expectation groups.

3. Teachers within different expectation groups and their students may give differing explanations for a positive and negative classroom climate.

Method

    Participants. The participants in Study 3 were 20 teachers and their 200

students identified in Study 2. The 20 teachers who held low, medium or high

expectations for all their students at the beginning of the 2011 school year formed the

Low expectation (n=7), Medium expectation (n=6) and High expectation (n=7)

teacher groups; and 10 students from one class of each teacher formed the 20 focus

groups. The demographic details and pseudonyms of the participants were provided

in Study 2 (see Tables 4.1 and 4.2).

    Data collection. The 20 teachers were interviewed individually in February,

2012, when the teachers had worked with their students for half a school year.

Teachers were interviewed in a venue where convenience and privacy could be

maintained, and there was no likelihood of interruption during the interviews. The

interviews for 20 teachers were completed within one week, and the teachers were

asked to choose a time during the week which they considered suitable

    The student focus groups were also conducted in February, 2012, the middle of

the school year. Each focus group consisted of the researcher and 10 students who

were randomly selected from the classes taught by the 20 teacher interviewees. Focus

groups were run in venues where convenience and privacy could be maintained, and

there was no possible interruption during the process. All 20 focus groups were

completed within one week, and the participants were required to keep confidential

what had been discussed.

A teacher interview lasted for approximately half an hour, and a student focus group for 40 minutes. Each participant was fully informed of the purposes of the research. A standardised interview procedure was adopted to provide consistency between data collection conducted at different times and places, as well as to reduce the chance of interviewer bias in communicating with the participants (Fowler, 1990). A range of open and closed questions was asked for the interviews and discussions to solicit the participants' views of the socioemotional climate in the classrooms in which both the teacher and the students were placed. All closed questions included a request for further explanation.

The language used in the interviews and focus groups was Mandarin Chinese. All the interviews and focus groups were audio recorded, and were transcribed in Mandarin Chinese. The transcripts in Mandarin Chinese were coded, and some typical responses were translated into English to be presented in the current study. An initial version of the interview and focus group prompt was designed with and reviewed by researchers skilled in qualitative methodology. The initial versions were administered to two practising teachers and two 10-student groups who were not involved in the current study. There were no difficulties in understanding or proceedings. The schedule and prompts for the teacher interviews and student focus groups are provided below (see Table 5.1).

Table 5.1

Schedule and Prompts for Interviews and Focus Groups

Data collection	Question/Topic
Interview	1. What is the ideal classroom climate that you want to create?
	2. What is your personal relationship with the students in the classroom?
	3. Is your instructional practice innovative for students?
	4. Do your students relate well to each other?
	5. How do you orient the students for their learning tasks?
	6. Do your students cooperate with each other in the class?
	7. To what extent do you encourage student autonomy?
	8. Do you have your favourite students in the class? Do you treat all your students equally?
	9. What are the main causes of a satisfying or unsatisfying climate in your classroom?
Focus group	1. How is your personal relationship with your teacher?
	2. Do you think the instruction is innovative?
	3. What is the relationship like between the students in the class?
	4. Does your teacher provide sufficient orientation for the lessons in your class?
	5. Do you cooperate well with other students in the class? How do you feel about that cooperation?
	6. Are you allowed to decide on your own what and how to learn?
	7. Does the teacher have his or her favourite students? Are you treated by the teacher the same as any other student?
	8. What are the main causes of a satisfying or unsatisfying climate in your classroom?

Data coding. The thematic analysis method was chosen as the most suitable method for identifying patterns of meaning across the dataset to provide an answer to the research question (Attride-Stirling, 2001; Braun & Clarke, 2006). The Study 3 had a framework related to the theme and subthemes of the dataset before data collection and analysis. Given the predefined theme and subthemes, deductive thematic analysis was adopted (Braun & Clarke, 2006; Fereday & Muir-Cochrane, 2008).

The researcher read through all transcripts several times to become familiar with how the participants had responded in the interviews and focus groups. Data items were coded in a systematic fashion across the entire dataset, and data items relevant to each code were collated. The researcher collated data chunks for each code and gathered codes relevant to each potential subtheme. Subthemes were reviewed and checked to see if they worked in relation to the coded extracts and the entire dataset; and the general theme and a thematic "map" of the analysis were generated. Then the researcher refined the specifics of each subtheme and the overall story told by the analysis, and assigned clear definitions and names for the theme and subthemes. The final step was to select vivid and valuable data items and data extract examples, relate the analysis to the research question and literature, and produce a scholarly report of the analysis.

Another researcher experienced in qualitative methodology was asked to code 15% of the original dataset again, based on the established theme and subthemes. An

inter-rater reliability analysis using the Cohen's Kappa statistic was performed to determine consistency among coders (Kappa = .92, p < .001).

Results and Discussion

To find out whether or not the classroom climate varied across the Low, Medium and High expectation teacher groups, Study 3 compared teachers' responses and explored the differences between the three teacher groups according to three categories: preferred classroom climate, actual classroom climate, and explanation for classroom climate.

Preferred classroom climate. Except for the High expectation teachers, most teacher participants did not talk about their views of the classroom climate when they were interviewed at the beginning of the school year (see Study 2). However, it was thought important to solicit their beliefs about the ideal classroom climate, because their beliefs may have shaped their behaviour which may have contributed to the actual classroom climate. Therefore, in the interview in the middle of the school year, all the teachers were asked to describe their ideal socioemotional climate.

The Low expectation and Medium expectation teacher groups reported similarly, with the differences mainly being between the High expectation teacher group and the other two groups. All the teachers within the Low and Medium expectation groups emphasised creating a friendly, relaxed and comfortable classroom climate. Lucy, a Low expectation teacher, said: "*I hope the class is a big family in which everyone feels comfortable. I am the elder caring about their learning and daily life. I give them some advice according to my own experience, in order to*

prevent them from making the same mistakes as I did." Leo, another Low expectation teacher, reported: "*I want to make a relaxed and pleasant classroom for my students, because I liked the teacher who did that when I was a student. Actually I have made it; sometimes I tell jokes and play with the students, often making them laugh out loud.*" Mary, a Medium expectation teacher, said: "*I hope the students are friends of mine. They do not feel pressured, and everyone in the classroom is equal. Everyone can talk freely, like talking to a group of friends.*" Molly, another Medium expectation teacher, stated: "*The ideal classroom climate should be relaxed and happy. I do not urge the students to work nervously for the test. I try to give them something interesting, such as some popular events for discussion topics … and I also introduce foreign cultures which the students like to know about.*"

For the High expectation teachers, the ideal classroom climate, in addition to being comfortable, friendly, and relaxed, should be also active. All the High expectation teachers included references to students' active participation in their responses. Hayley said: "*I expect the classroom climate is active and friendly. We chat like friends; the students willingly share their thoughts.*" Helen reported: "*The teacher and the students interact well with each other. The teacher is nice, and the students cooperate and react actively. All the students participate in the instructional activities; the class is student-centred, and they feel comfortable in the classroom*". Hans said: "*The students talk freely and actively answer questions. I usually lecture with a friendly voice tone and facial expression, choose funny and real life topics, and encourage the students to discuss with others before answering questions.*"

Thus the Low expectation and Medium expectation teachers were trying to create a friendly classroom in which the students felt comfortable and relaxed; while the High expectation teachers expected that the ideal classroom climate would not only be friendly and warm, but also active. The responses of Low and Medium expectation teachers teacher-initiated interactions; for example, they reported how the teacher should care, provide advice, tell jokes and so on. High expectation teachers highlighted student engagement in and contribution to the classroom by including references to students' behaviours in their report; for example, how students should share, answer questions, participate in activities, and cooperate with the teacher. High expectation teachers appeared to attach more importance to student active engagement than Low and Medium expectation teachers; thus it would appear that High expectation teachers were more likely to design instruction and introduce activities that got the students actively involved.

It must be remembered that the current section reflects teacher beliefs and self-reported evidence rather than actual classroom climate. Previous studies have found significant differences between the preferred classroom climate and the actual classroom climate, indicating that participants in the classroom preferred a more positive classroom environment than the one they were experiencing (Fisher & Fraser, 1983; Fraser, 1982; Hofstein & Lazarowitz, 1986; Moos, 1979). Hence, the actual classroom climate is worth more attention, since it is more likely to reflect what is actually experienced and perceived in the classroom, and to have an effect on behavioural and affective variables of both the teacher and the students. If the actual

classroom climate did vary in line with teacher expectations, it may be anticipated that differing classroom climates may lead to different student learning outcomes, as previous studies have pointed out that classroom climate may work as an important mediator for teacher expectation effects (Babad, 1998; Rosenthal, 1991; Rubie-Davies, 2008a; Weinstein, 2002). Therefore, in the following sections, student views will also be included. Both the teachers and students provided detailed descriptions of the actual classroom climate.

Actual classroom climate. The current study investigated multiple factors of classroom climate depending on teacher expectation groups, and aimed to provide a comprehensive understanding of the climate details in classrooms with Low, Medium and High expectation teachers. Generally, Study 3 investigated two broad dimensions of classroom climate—socioemotional relationships and pedagogical conditions (Rosenthal, 1991). Within these two dimensions it looked at seven specific factors of class climate in the 20 classrooms. These were suggested by the College and University Classroom Environment Inventory (Fraser, 1993; Fraser, Treagust, & Dennis, 1986; Nair & Fisher, 1999, 2000a), an instrument for assessing classroom climate at universities and colleges which has been shown to be valid and reliable (Fraser, 1991, 1998; Fraser & Treagust, 1986; Nair & Fisher, 2000a, 2000b). The factors were: teacher–student relationships, innovation, student cohesiveness, task orientation, cooperation, autonomy, and equity. A full explanation of the College and University Classroom Environment Inventory (CUCEI) is given in Chapter 6. The following sections explore each factor in turn to see whether the teacher's

expectations for the whole class were related to that particular factor of the classroom climate or not.

Teacher–student relationship. Teacher–student relationship refers to the extent to which the teacher is concerned about student personal welfare and to which students personally interact with the teacher (Fraser, Fisher, & McRobbie, 1996; Nair & Fisher, 1999, 2000a). Teachers were interviewed and student focus groups were conducted to investigate the teacher–student personal relationships in the classroom. Further questions about the teacher–student relationship details included: Is the teacher friendly and considerate? Does the teacher often talk to the students and have a pleasant conversation? Does the teacher care about the students' problems and help them out?

The teacher responses varied between expectation groups. The Low expectation teachers believed that they shared a good relationship with their students, but more than half of these teachers (four of seven) also mentioned the students seemed a little nervous when interacting with the teacher. Lily reported: "*Generally, we have a friendly relationship … some students may feel a bit nervous in class. I care about them personally after class, but to complete instructional activities is the main task in class, so I do not have enough time to be concerned with the students when I am giving lessons … and you know, every student has his special status, so I cannot take care of each of them. I have to focus on the majority … the students do not communicate with me a lot.*" Lincoln said: "*Maybe I often look a little serious … when they ask academic questions, I do not answer if those questions are easy, just*

letting them figure the questions out on their own, but I discuss with and help them

with hard ones … they may feel a little pressured when they are with me."

The teachers within the Medium expectation group reported a better relationship with their students than the Low expectation teachers did; most of them described their interaction with the students as "friendly" and "relaxed". Molly said: "*My personal relationship with the students is quite good. I view them as my family members. I am friendly, patient and keep communicating with the students.*" Mary reported: "*When they meet with problems, I would offer enthusiastic help … the students are very relaxed to interact with me.*" Only one Medium expectation teacher, Mandy, reported problems in her personal relationship with students. She said: "*I wish to have a closer relationship with my students, but neither the students nor I am really ready. It seems we still have not achieved a carefree relationship, and sometimes we cannot behave light-heartedly.*"

The High expectation teachers all perceived their personal relationship with the students as fairly good. They reported a close and positive relationship with their students. In addition, the High expectation teachers emphasised the help they provided the students. Harry stated: "*We are getting along well with each other. I am happy to help the students in class, and after class they would consult me about some personal problems, such as their career planning.*" Hilary said: "*I am concerned about them and extremely willing to help them. The students like to interact with me in person as if I were the elder sister, not the teacher.*" Hugh said: "*I take delight in helping the students; I always offer my care for them, and they like me very much.*"

It appeared that the personal relationship between the teacher and the students varied depending on the teacher expectation groups. The degree of friendliness of the teacher–student personal relationships seemed to vary in line with the level of the teacher expectations. The teachers with high expectations reported creating better interactions with their students than what the low expectation teachers reported sharing with their students. Based on what the teachers reported, students with Low expectation teachers seemed to experience some tension when interacting with the teacher, and students with Medium and High expectation teachers were likely to feel more confident in interacting with the teachers. The High expectation teachers also reported helping their students frequently.

It is also important to investigate how the students perceived their personal relationship with the teacher. The students whose teachers held differing expectations commonly reported pleasant personal relationships with the teachers, but there were still some differences between the groups. A small number of students with Low expectation teachers reported unpleasant teacher–student relationships; however, there were no such responses among the students with the other two groups of teachers. One student in L3 said: "*The teacher just stands over there; I feel he is far away from me. The teacher is nice, but I wish we could have better communication with each other. The teacher does not know me at all, unfamiliar, a little bit odd.*" Another student in L6 reported: "*At the beginning we interacted with the teacher well, but gradually there is less chance.*" Students with Medium and High expectation teachers all reported positive relationships with their teachers. A student in M1 said: "*The*

teacher is very friendly, always smiling. I feel no pressure and no generation gap."

Another student in M2 said: "*We get along well. We chat like friends.*" A student in

H1 reported: "*We don't feel anxious in the English class. We can say what we want to.*

Our teacher is so nice, and we always hope to stay longer with her." Another student

in H4 commented: "*I feel happy when being with the teacher. He is like a valuable*

friend. He brings a lot to us."

Apart from a friendly interpersonal relationship, most students with High

expectation teachers highlighted help from the teacher and appreciated that. For

example; one student in H1 reported: "*The teacher is friendly, very nice to everyone;*

she helps us to solve problems, and sometimes I ask for her help in private, even for

personal issues, she responds happily. I believe we are friends.   Another student in

H3 said: "*When we need help, just tell the teacher, then the teacher would help us with*

a lot of patience and care … every time I raised a question, the teacher would explain

the answer to me patiently; I am happy to attend the course."

The students' responses suggested that the personal relationship with Low

expectation teachers was more distant and less caring; while the personal relationship

with Medium and High expectation teachers was more pleasant. In general, the

student perception was consistent with the teachers' views about the personal teacher–

student interaction in the classrooms. From the evidence it appeared that the high

expectation teachers built a more positive personal relationship with the students than

the low expectation teachers did; and accordingly, the students with high expectation

teachers seemed to enjoy interacting with the teacher personally more than the

students with low expectation teachers. This finding is consistent with existing

literature that teachers with high expectations create a more caring socioemotional

climate in their classrooms than low expectation teachers (Rubie-Davies, 2008a).

It is interesting that the teachers within the High expectation group seemed to

be more helpful, as was reported by both the teachers themselves and the students.

The High expectation teachers appeared to offer more help to their students, and the

students were more likely to rely on the teachers when they had problems in learning

and in their personal life. This confirmed what was argued above that high

expectation teachers seemed to have a more caring relationship with the students,

because the student willingness to share personal issues with the teacher can be

interpreted as a close friendship between them. Also, the High expectation teachers

may have responded better to student academic questions; previous research has

indicated that high expectation teachers were likely to spend more time and attention

in explaining difficult concepts to the students (Rubie-Davies, 2007, 2008a), which

contributed to a better interaction and learning environment for the students. In the

current study, one Low expectation teacher, Lincoln, did report ignoring questions

from his students that he considered they should know, and consequently the students

became nervous when interacting with the teacher. For students, this dismissive

attitude may not have helped to foster a positive relationship. Students with low

expectation teachers also reported a more distant relationship with their teacher than it

seemed they would have liked. The teacher–student personal relationship has been

shown to be related to student motivation for learning (Wentzel, 1997). The students

may feel themselves more cared for and valued by the teacher when there are more positive personal interactions, and such a positive relationship appears to motivate students more to engage in the learning (Dörnyei, 1998; Fraser, 1991; Matsumura, Slater, & Crosson, 2008; Vitto, 2003; Wentzel, 1997) and lead them to greater academic gains (Fraser, 1998).

Innovation. Innovation refers to the extent to which the instructor plans new and unusual activities, teaching techniques and assignments (Fraser et al., 1996; Nair & Fisher, 1999, 2000a). Questions for detailed information were like: Does the teacher use new and different ways of teaching in this class? Are the teaching approaches used in this class characterised by innovation and variety? Do the students seem to do the same type of activities in every class? Both the teachers and the students were required to share their views about innovative instruction in the classroom, and their responses were compared between teacher expectation groups.

Responses from the Low expectation and Medium expectation teachers showed similar beliefs. Approximately half of those teachers believed they provided innovative materials and employed innovative teaching techniques. Lisa, a Low expectation teacher, said: "*I try something new. For example, here's a task for group work. I first let students run for group leaders voluntarily, and the candidates talk about how they will lead the group work, trying to attract more group members. The other students may choose freely the group leader who they want to follow.*" Martin, a Medium expectation teacher, commented: "*Generally speaking, my teaching methods and content are novel. I design some fancy activities for training their speaking and*

listening, and the students are interested. I include some new materials in teaching and hope to bring innovation to the students; their feedback was not bad."

Meanwhile, the other half of the teachers within Low and Medium expectation groups reported their failure in innovation. An example of this came from Laurence, who stated: "*The reading course is rather old-fashioned, because the textbook limits the options for activity, but I have to follow the textbook.*" Mandy, a Medium expectation teacher, reported: "*My teaching does lack innovation, quite traditional, maybe the students feel a little bit bored … usually I let the students work with one partner, conceiving of and practising dialogues; that is the most common activity, nothing else and special.*" Maria, another Medium expectation teacher, also said: "*There is not much innovation; similar procedures for each unit, just with minor changes according to the topic of the specific unit.*"

High expectation teachers commonly (five of seven) reported novelty in their instructional practice, and they emphasised providing students with new perspectives apart from fresh materials, activities and techniques. A typical response came from Harry who said: "*I do not follow the textbook completely, because I think it is boring. I design teaching according to what the students need. This is the first year for them at university, and they may feel everything is unfamiliar. The teacher has the responsibility to present more to them, and offer them new thoughts and different standpoints to look at some issues.*" Heather reported: "*I adopt advanced teaching techniques, always design various activities, and I also share the latest views with them, trying to help them to analyse problems in a creative way. The students may*

feel learning at university is different from in high school, fairly fancy." Helen said: "*The teaching methods are comparatively fresh, different from high school style. I advocate task-based and communicative teaching approaches. Usually I use the newest materials for instruction. I asked for their feedback, and they felt learning is engaging and innovative.*"

It seemed that the High expectation teachers provided more innovative instructional practice than the Low and Medium expectation teachers did. As reported by the teachers themselves, the High expectation teachers appeared more likely to employ new teaching approaches, provide novel learning materials, and share fresh viewpoints and ways of thinking than the teachers within the other two groups.

Student views about instructional innovation were also solicited and compared between teacher expectation groups. Most students with Low expectation and Medium expectation teachers reported that classroom instruction was not innovative enough. They described:

"*The basic procedure for each unit is similar, like a routine, kind of boring.*" (Student in L1)

"*We may have learnt something, but our views have not been extended.*" (Student in L4)

"*Not fresh enough, I expect something from the teacher to enlighten me, to inspire new ways of thinking.*" (Student in L6)

"*I feel teaching at university is similar to that in high school. The only difference is to let us study on our own.*" (Student in M5)

"The teacher should give us something which is not written in the text book and related to the topic." (Student in M2)

"The instructional activities for each unit seem rather repetitive, and so far I have not seen any new thoughts from a different standpoint." (Student in M3)

"The teacher usually explains the text to us, very boring. I have already understood most of it, so the process is too long, time-consuming." (Student in M6)

Among the students with High expectation teachers, most of them appreciated the innovative instruction that their teacher provided. One student in H7 said: *"The teacher arranged many new activities; for instance, he assigned a part of the text to each group, and let us act as a teacher to explain the part to the whole class."* One student in H3 reported: *"The teacher helps us to broaden horizons, and we get in touch with many new things. There are so many first-time experiences for us in activities, ideas and ways of thinking."* Another student in H6 said: *"The teacher designs different activities for each unit, and lets us try something we never did, for example weather forecasting, drama play, and public presentations. We do learn something really good and new."*

It appeared that most students with Low and Medium expectation teachers were not satisfied with the instructional innovation they were offered, and their evaluation of this dimension of classroom climate was lower than their teachers', since half of the teachers believed the instruction was novel. This indicated a discrepancy between student perceptions and teacher perception of the class. Such perceptual disparity has been identified in previous studies whereby teachers tend to perceive a more positive

actual classroom climate than was perceived by the students in the same classroom in terms of various environment dimensions (Fisher & Fraser, 1983; Fraser, 1982; Hofstein & Lazarowitz, 1986; Moos, 1979). Student perceptions of the actual classroom climate may be of greater importance because they are the determinants of their own behaviour, (Fraser, 1982; Fraser & Fisher, 1982) and mediate the effects of the classroom climate to student outcomes (Weinstein, 2002).

The students' comparatively lower evaluation of instructional innovation in the classrooms with Low and Medium expectation teachers showed some dissatisfaction with the actual learning environment, and also their desire for innovative materials, activities, and viewpoints. As university students, they seemed to want higher-order innovative instructions which were different from what they had tried before at secondary schools. The dimension of "innovation" was not included in the classroom climate scales for elementary school or secondary school students developed by Fraser and other researchers (Fisher & Fraser, 1981; Fraser, 1990; Fraser, Anderson, & Walberg, 1982; Fraser et al., 1996; Moos & Trickett, 1987; Taylor, Fraser, & Fisher, 1997), but was added to the College and University Classroom Environment Inventory, reflecting a feature of tertiary education which is highly demanding (Fraser, 1993; Fraser & Treagust, 1986; Fraser et al., 1986).

It appeared that Low and Medium expectation teachers did not provide sufficiently novel instructional experiences for their students, who may consequently have found the classroom boring and unappealing, and these students' learning opportunities, engagement and motivations could possibly have been impaired.

Further, some teachers within the two groups did not seem to be fully aware of what was actually happening in the classroom. Contrastingly, the High expectation teachers appeared to be offering new materials, techniques, and viewpoints in their instructional practice, and their students seemed satisfied with the learning environment and interested in the course. Hence it can be anticipated that the students with the High expectation teachers were more likely to be actively engaged in the novel learning opportunities provided by the teacher. Such differences between teacher expectation groups seemed to confirm previous research that high expectation teachers were more likely to design instruction based on the learners' needs and interests and emphasise the student role in their class than low expectation teachers (Rubie-Davies, 2007, 2008a).

Student cohesiveness. Student cohesiveness was defined as the extent to which students know, help and are friendly towards each other (Fraser et al., 1996; Nair & Fisher, 1999, 2000a). Personal relationships in the classroom include teacher–student and student–student relationships, as both the teacher and the students are participants in the classroom, and the interrelationship among each works together to contribute to the actual classroom climate. Hence in this section the student–student interaction was investigated for possible patterns depending on teacher expectation groups in teacher and student responses. Further questions for more detailed responses included: Do the students know each other well? Do the students make friends easily in this class? Are the students interested in getting to know each other in this class?

Collectively, the teachers within the Low expectation group and High expectation group perceived that their students enjoyed strong, positive relationships with each other. They said:

"*They get along well with each other. The students in the class come from two departments, and there seems no boundary between them. When they form small groups with classmates by choice, they usually form groups with members from the other department*" (Linda, Low expectation teacher)

"*The students know each other well and are friends; the classroom is big, but they always choose to be seated closely. I can feel the bond among them; because if not, they would keep distance unconsciously from others.*" (Leo, Low expectation teacher)

"*It seems they enjoy great peer relations, and their interactions are active and harmonious.*"(Heather, High expectation teacher)

"*The students know each other well, and like each other. I believe they have already built friendships after half a school year.*" (Hugh, High expectation teacher)

In contrast, all the Medium expectation teachers stated poor peer relationships among the students in their classrooms. Mandy reported: "*They are not close enough. After class, they do not have much personal contact with one another.*" Molly said: "*The students do not feel bad about each other, but I do not think there is strong cohesion. They do not know each other very well. I don't assign seats to them, but they always choose to sit with the specific ones who they are familiar with. I do not deliberately mix their seats, because they would not like that.*"

Student perceptions of cohesiveness in the classroom appeared to show different patterns depending on teacher expectation groups. Most students with Low expectation teachers reported a high level of student cohesiveness in the actual classroom climate. They said:

"*We make friends with classmates. In class, we are supportive to each other, and after class, we hang out together and have lots of fun!*" (Student in L1)

"*We have pleasant friendships, and we like to stay with each other … everyone knows everyone, and is nice to each other. When we work on an activity together, we can talk freely, and everyone is active, helpful and relaxed.*" (Student in L3)

"*We come from different places, and we like sharing personal stories with classmates. It's fun to be with the other students, because we are of similar age, in a similar condition and so it is easy to become friends.*" (Student in L6)

Meanwhile, students with Medium and High expectation teachers commonly perceived that student cohesiveness was less positive. They described:

"*We know other students in the same classroom, but not at the 'friend' level, and we do not communicate much with each other. This is the first year; we have not got used to the way to make friends at university.*" (Student in M5)

"*Especially for boys and girls, they just know each other. Most students have his or her small circle of familiar friends, just several ones, very fixed, usually the dorm mates. We like to take seats with friends when attending the course.*" (Student in M2)

"I do not know other classmates well. When I am allowed to pick up working partners, I always choose the ones I am familiar with. This class consists of students from different departments; there seems an obvious line between us." (Student in M4)

"Boys know boys well, and girls know girls well, but there is little personal contact and interaction between the two genders. Maybe we have not known how to break the ice, but luckily the teacher is very nice to us." (Student in H1)

"We always sit with someone we are familiar with, so there is little chance to know other unfamiliar ones. We do have group work with different classmates, but that is business, not much of friendship. I think, if the teacher is aware of this, and mixes our seats deliberately, we can contact and become friends with more classmates. If I hang out with the ones who sit close to me during the break or leisure time, friendship would be build." (Student in H2)

"We share the classroom, listen to the same teacher, and work together in small groups, but it seems there is little personal interaction. Everyone focuses on his or her own business, and this is university, you see, we depend on ourselves, so we attend the course together, but separate after that." (Student in H5)

It appeared that the teachers within Low and High expectation groups perceived that their students had positive relations with their peers, but the Medium expectation teachers reported less positive student cohesiveness in the classrooms. Only the students with Low expectation teachers believed they shared a close friendship with classmates, but the students with Medium and High expectation teachers were not satisfied with their personal interactions with other students. It can be concluded that

what the teachers within the Low and Medium expectation groups perceived of the student–student relationships was similar to their students' perceptions, but there was a discrepancy between High expectation teachers and their students' evaluations of student cohesiveness in the classroom. The High expectation teachers perceived student cohesiveness more positively than their students did, which indicated that teachers may hold more positive perceptions than students of the climate in the same classroom (Fisher & Fraser, 1983; Fraser, 1982; Hofstein & Lazarowitz, 1986; Moos, 1979).

From the students' responses, it can be seen that the students with the Low expectation teachers enjoyed warm and friendly relationships with every other student in the class, as they stated that they like to know, share with and support "each other". However, the students with the Medium and High expectation teachers reported that they only maintained positive relationships with specific individuals, as evidenced by their emphasis on "line" and "circles" in the class. Further, the students with the Low expectation teachers reported that they built friendship with other students and had pleasant personal interactions beyond class activities; for example, they "share personal stories" and "hang out" after class. For the students with the Medium and High expectation teachers, it seemed that their interaction with classmates was task-centred, for example group working, and they did not form personal relationships outside the class. Although the students with high expectation teachers reported working well with other students on tasks, which maybe made the teachers believe that the students had positive friendship, these students reported the interaction as

"business, not much of friendship", and described their relationship with their peers as like colleagues but "not at the 'friend' level".

Previous literature (Rubie-Davies, 2006) also yielded similar results that students with low expectation teachers reported stronger peer relationships than those with high expectation teachers. Meanwhile, it has also been found that students with low expectation teachers have a less positive relationship with the teacher than those with high expectation teachers (Rubie-Davies, 2008a). The teacher–student relationship and peer relationship, as the major interpersonal relationships in the classroom ecology, seemed to buffer each other. Because of a poor relationship with the Low expectation teacher, the students tended to seek care and support from other students and hence built close friendship with their peers. It seemed that these students with Low expectation teachers were not satisfied with their relationship with the teacher and therefore were more likely to be reliant on their friends in the class. Less positive peer relationships among the students with the Medium and High expectation teachers may be a result of their warm, friendly relationship with the teachers. Like one student in H1 stated that "luckily the teacher is nice", it seemed that those students with high expectation teachers enjoyed care and support from the teacher so that they were less likely to be reliant on their peers.

Another possible cause of less student cohesiveness in most classrooms in Study 3 could possibly be the university context. Because university students usually attend various classes with different classmates, they may have little chance to develop meaningful peer-relations through frequent and stable interactions.

It is also noteworthy that student relatedness to peers may not be as important for school engagement compared with having emotional bonds to teachers, Less peer-relatedness probably could not significantly lessen student emotional and behavioural outcomes if the students enjoy positive relationships with their teachers, as has been shown in other research (Furrer & Skinner, 2003; Richard, Stiller, & Lynch, 1994). In the current study, the students whose teachers held high expectations for them actively participated in classroom activities and interactions even with less positive peer-relations, which suggests that the teacher–student relationship may compensate for student–peer relations.

Task orientation. Task orientation investigates the extent to which class activities are clear and well organised (Fraser et al., 1996; Nair & Fisher, 1999, 2000a). In this part, the teachers and students were asked questions about whether teachers had clear goals and were organised for their instruction for a specific lesson and for the whole course. The questions asked included such questions as: Do the students know exactly what has been done in this class? Are class activities and assignments clear and carefully planned? Are the students aware of the instructional plans?

The Low and Medium expectation teachers commonly reported unclear goals for their instruction and student learning. They seemed to have poorly organised teaching plans and just proceeded with their lessons according to the textbook or syllabus. They said:

"Usually my decisions about the instructional activities are based on my past working experience. I rise to the occasion, and deliver instructions accordingly. There is no need for other plans, just following the syllabus." (Laurence, Low expectation teacher)

"At times I feel hesitant about what should be done in the class, so I have to do what the textbook provides, following the activities in it. I think I need my own ideas to arrange my teaching practice and keep the students focused on the activities." (Lisa, Low expectation teacher)

"I do not have much planning. The course team advised general teaching arrangements for the whole school year, and I follow it. Sometimes the students seem not to like those activities, and so do I." (Melisa, Medium expectation teacher)

"For each unit, I choose materials and activities for instruction according to the unit topic. Some students may get sidetracked, because I think they are not interested in the theme of that specific unit, and you know some units are rather boring." (Martin, Medium expectation teacher)

The teachers within the High expectation group displayed more thorough and organised orientation in their instruction. These teachers seemed to have not only carefully planned teaching activities for each lesson, but also an integrated organisation of instructional tasks for the whole course. Harry stated: *"At the beginning of school, I had a macro plan, for example, I asked the students to do a weekly presentation in turn, I told them about the requirements of the form, method, content, and then they can do it, well, from the beginning to the end of the school year.*

And for each lesson, I have a careful plan for what to do, and in what order to do things, trying to give them a well organised lesson … I gave the students 15 speech topics in advance, and then asked them to prepare for these topics in sequence; each week when it comes the time, they present speeches about a certain topic. The first topic is about transition to university life, and later they are supposed to describe, discuss or argue in relation to various topics. I also tell the students why I arrange the lessons like this, because they need to practise more and develop abilities to give various speeches." Another High expectation teacher, Hilary, provided an impressive description of how she set clear goals for her instructions: "*The whole course should be an integrated process to enhance student learning. I have designed an overall plan for the whole course instruction, about periodical tasks and the general procedure. For example, for oral English exercises, I would spend four weeks on tenses, and design activities focusing on practising various tenses; for the next two weeks, the major task would be passive voice, then a lot of exercises on it; and when the students have achieved previous goals, we will move to the next one, maybe subjunctive mood. In this way, I design and organise instructions for each lesson, all the lessons are integrated into various tasks, and all the tasks work together to improve student achievement.*"

Analysis of student perceptions of task orientation showed similar patterns to those of teacher responses. Most students with Low and Medium expectation teachers reported unclear goals for instructional activities in their classrooms. They said:

"We are not clear about what arrangements the teacher makes or why; usually we follow the textbook … we have some activities, but sometimes do this, sometimes do that, not much organised, and we feel confused about why we do this and what to do next." (Student in L3)

"The instruction is not very clear; it seems the teacher decided one minute ago what activities we shall do next! The teacher assigned homework one week before, but forgot it the next week; we did some work as he asked, but the teacher never checked or mentioned it later, so nothing happened at all." (Student in L7)

"I hope I can have clearer ideas. It feels the teacher starts or ends the activities as she likes, too casual. I have to find out the learning focus by myself." (Student in L2)

"I cannot see how the course is organised. We do have fun here, but little scheme for acquiring knowledge. We do many activities, but the teacher does not correct us in a timely manner. The atmosphere is good, but not really helpful for learning." (Student in M2)

"I am a little confused; what is the significance of following exercise one, two, three and unit one, two and three … It is not necessary to spend so much time doing something that simple, and when it comes to the important and difficult parts, we run out of time. I cannot concentrate on those unnecessary things; those are not valuable." (Student in M5)

"I just do what the teacher orders, not sure what has been achieved or not achieved, and often get absent-minded." (Student in M6)

The students within the High expectation teacher group, however, reported task orientation in their classes more positively. Most students perceived the instructions were clearly task based and well organised. They said:

"The teacher asks us to prepare for certain topics, such as food, natural disasters, environment protection, and so on. We can remember some new words and extend knowledge related to the specific topic, so if later we meet with a similar one, we can do better." (Student in H1)

"My teacher plans the instructions well. I know the standard procedure, what to do and when to do it. The class time is limited, so the arrangements of activities are quite tight, and we can practise as much as possible. Everyone is highly focused, because we move from one exercise to the next quickly, practising listening, speaking, reading, and writing; we must work efficiently." (Student in H6)

"We do appreciate the teacher's overall plan for the whole course. It might be hard to improve one's language ability, because it is an enormous concept and a comprehensive capability. The teacher divides the whole job into small tasks, and helps us to achieve them one by one. We were told at the beginning about the schedules of those tasks, so we know our goals for each section of the course. For example, in the last two weeks, we learned how to write the first paragraph of an essay; we did a lot of related exercises and now most of us have mastered these skills, then we will begin the next phase. We have a sense of achievement once finishing a task, and work with confidence for the next challenge; in this way, at the end of the course, we will gain a lot." (Student in H5)

The teachers and students seemed be in agreement in their perceptions of task orientation in the classroom. Their responses showed differences between the groups that appeared to relate to their teacher's expectations. It appeared that the instructional activities in the classrooms of Low and Medium expectation teachers were less clearly organised than the activities in the classrooms of High expectation teachers. Low and Medium expectation teachers seemed to plan instruction by following the textbook or their experience, and they did not seem to work hard enough to provide students clear goals and direction for the classroom activities. Students with Low and Medium expectation teachers tended to perceive the instructional activities as unclear and poorly organised, so they seemed confused and appeared not to focus on the instruction. High expectation teachers seemed to have their instruction carefully planned, and informed their students of the instructional arrangements in advance. Students with High expectation teachers were more likely to have clear ideas about the instruction, and hence focused on participating in the activities. The difference between high and low expectation teachers in orienting students to the instruction has also been identified in the literature (Rubie-Davies, 2007, 2008a); it has been found that teachers with high expectations orient their students to the instruction more frequently than do low expectation teachers.

It is also noteworthy that High expectation teachers spent more time in carefully designing the overall instructional plans for the whole course and in orienting their students to the big-picture schedule. These teachers focused the students on the concurrent activities in a specific lesson, and also set sectional tasks relevant to the

whole course. They scheduled carefully each task and designed exercises for student mastery of the specific skill; more importantly, these tasks would integrate to enhance student learning of a foreign language. The students with High expectation teachers were more likely to be aware of what they had achieved and what they needed to do next for the following tasks because their teachers gave them the big picture. In her study of the extent to which the teacher may treat students differentially in the same class, Weinstein found that "low differentiating teachers" set task mastery goals for the students while "high differentiating teachers" emphasised performance goals (Weinstein, 2002). The current study investigated the overall climate in classrooms depending on teacher expectation groups, and further found that the teachers who held high expectations for all the students in the class also seemed to set task mastery goals for the students. Previous research (Rubie-Davies, 2007, 2008a) which studied the feedback of teachers with high expectations for the whole class has reported similar findings, that high expectation teachers more frequently provide students with feedback on their learning goals and their students better understand their own learning progress. Rubie-Davies argued for the corollary that high expectation teachers may set task mastery goals for their students rather than performance goals so that the students may focus more on their own learning; the findings of the current study provide new evidence to support her argument.

According to the student responses, having task mastery goals focused them on the current activities and also oriented them to future objectives. It can be anticipated that awareness of one's own progress would enhance student participation in and

motivation for learning, as related literature (Ames, 1992; Barron & Harackiewics, 2001; Urdan & Midgley, 2003) has pointed out that if students perceive that their class emphasises mastery goals, they are more likely to have positive attitudes towards learning, accept challenging tasks, and believe that effort leads to success.

Cooperation. This section focused on the extent to which students cooperate on learning tasks and learn through cooperation, in relation to the teacher groups (Fraser et al., 1996; Nair & Fisher, 1999, 2000a). Questions for details included: In what way does the teacher group students for learning tasks? Do the students often work with other students on projects and activities in this class? Do the students enjoy working with other students? Do the students learn from other students through cooperation?

Most teachers within High and Medium expectation groups reported frequent and valuable cooperation among students. They said:

"The students cooperate well. I let them form temporary groups according to the activities. I randomly assigned students into groups. For each group, there are a few very active students, and they work as the organizers. Students can learn from each other through cooperation; the high-achieving students help those who are not that good at learning." (Molly, Medium expectation teacher)

"There is frequent cooperation in the class. The students love to cooperate with and help each other. I often try to assign group tasks which they are interested in. The group members work together and everyone is involved." (Maria, Medium expectation teacher)

"The students enjoy cooperation, and they interact with classmates pleasantly. They share ideas and information, so they can learn from the others. For example, once everyone introduced his or her hometown to the group members, they were very interested in knowing more about other places, asking a lot of further questions and discussing the responses warmly." (Heather, High expectation teacher)

"We have a lot of group work, and the students are given plenty of opportunities to cooperate. Usually I group them randomly according to their student numbers, so they can work with different students. They learn from cooperation; when one has difficulty, the others give hints or share their own information generously." (Hans, High expectation teacher)

Among Low expectation teachers, more than half of the interviewees reported less frequent and less positive cooperation in the classrooms. Lincoln stated: *"I feel the students seem not to know how to cooperate in a university course. I usually do not assign groups; the students can choose who to work with freely. However, the biggest problem is only a few students, usually the group leader, does the work for the whole group and the rest of the members are just waiting."* Laurence said: *"To be frank, I have not compared the student learning effects with or without cooperation. There seems not much learning from peers during group work, and I think they prefer minding their own business. I let them form groups freely and do not deliberately mix different students into groups, but I find they always choose to join groups with their familiar friends."* Linda reported: *"I do not design much group work for the students, because I find their discussion is a mess. I usually*

assign tasks which they can complete individually. What they need most now are

thinking and practising, not cooperation. Cooperation, now for them, yields nothing;

only when they get well prepared, they can share, interact, and cooperate with

others."

The students appeared to show similar patterns in their perceptions of

cooperation in the classrooms depending on the teacher groups to which they had

been assigned. The students with Medium and High expectation teachers reached a

consensus of positive peer cooperation. They stated:

"Cooperation is fantastic! I love it, and I love to interact with my classmates.

Everyone is enthusiastic about cooperative activities. We can learn something from

group work, for instance, when we are discussing a topic within a group, other

members would present fresh ideas which I have never thought of." (Student in M5)

"Cooperation is a must have; it is important for learning a foreign language to

communicate with others. I like cooperating with other students, because I can gain a

lot. People share with me their unique thoughts, and we help each other. For

example, if I do not know an English word, they will tell me; if nobody knows it, we

will look it up together. I find this is also kind of teaching and learning which proves

fairly efficient." (Student in M2)

"Group work is a precious opportunity for practising English, because we

seldom speak it after English class. People have differing ways of thinking and

standpoints, very enlightening. I also found some students were much better than me

in English, and I could learn from them what I had not known before." (Student in M4)

"We think cooperation is terrific! Cooperation is communication through which we can improve communicative skills. More importantly, we have the chance to learn from other classmates. When we are discussing about a certain topic, somebody may have a brand-new idea, and I would be suddenly enlightened, wondering 'Wow! Why couldn't I have thought of that?' Within the group, I could practise oral English with the member who is good at speaking, and I could obtain valuable information from the one who is a grammar guru." (Student in H1)

"Cooperation is a feature of the English course, while in other courses we always learn individually. Usually we are asked to work with others to complete a task; I think it is a good opportunity to practise what I have learnt. It is a kind of reinforcement, and it works for me." (Student in H4)

"Everyone likes cooperation, and joins in actively. It is beneficial. We can learn something from partners, for example we correct each other's accent. Cooperation helps learning, because what we learn from peers is surprisingly impressive. Once I heard a new word spoken by a partner, I could easily remember it and bear it in mind. It seems magical and even more efficient than listening to the teacher; I cannot explain why, but it happens at times." (Student in H5)

Meanwhile, half of the students with Low expectation teachers perceived cooperation among peers less positively. One student in L1said: *"There is no cooperation at all. We answer questions only when the teacher calls our names. We have little chance to cooperate with other students in the class; everyone is listening to the lecture and working individually."* One student in L4 said: *"We have group*

work, but not much, and it feels not engaging enough. I do not think I can learn a lot from the group members, because most students in the group do not contribute to the task; they are just chatting or keeping silent, because they are not interested or they cannot follow up with the other group members." Another student in L7 said: "*Usually we cooperate with two or three friends who sit nearby. If the partners are not good enough, no way to interact at all, and impossible to learn from them. I believe students of similar levels should be assigned to a group, and each one can find the right people to talk to and learn from.*"

According to both the teachers' and students' perceptions, it appeared that high expectation teachers provided cooperative activities for the students more frequently than low expectation teachers did in their instructional practice. It seemed that the Medium and High expectation teachers were more likely to assign students randomly, while the Low expectation teachers showed the tendency to let the students form groups freely. The students with high expectation teachers were more likely to participate in cooperating actively with peers, while the students with low expectation teachers seemed not to be much involved in such activities. In addition, the students with high expectation teachers were more likely to learn from cooperative activities than the peers with low expectation teachers.

Teachers who held comparatively high expectations for all the students seemed to embed cooperative learning as an instructional method in the classroom. They grouped the students, assigned tasks to student groups, and made sure every student could participate in and learn from the cooperative activities. However, teachers with

low expectations adopted less cooperative activity into their instructional practice. They were likely to deliver instruction by lecturing students rather than allowing students to learn from peer cooperation. This group difference reflected the respective pedagogical beliefs of high and low expectation teachers which have been found in previous studies (Rubie-Davies, 2007, 2008a). Teachers with high expectations let students take responsibility for their learning, so their students are frequently assigned to solve problems and acquire skills on their own in cooperation with peers. Low expectation teachers tend to decide what and how the students should learn; hence they deliver the course primarily through lectures in order to make sure that what the students learn is under their control.

Cooperative learning consists of some essential components, including positive interdependence, in which all group members participate to achieve the group goal; individual accountability, in which each member of the group is responsible for his or her learning and in turn contributes to the group goal; and cooperation, in which students discuss, problem-solve and collaborate together (Johnson & Johnson, 1991). The students whose teachers held high expectations seemed to actively participate in and contribute to the group work; while the students whose teachers held low expectations were less likely to be engaged in work for a group goal. Previous research has attempted to explain student motivation for cooperation, and found that student mastery orientation was positively related to engagement in cooperative learning (Ames, 1992; Johnson & Johnson, 1989; Kim, Kim, & Svinicki, 2012; Nichols & Miller, 1994; Slavin, 1983, 1996; Summers & Svinicki, 2007). Students

who adopted mastery goals were likely to participate actively in group work and encourage one another to do their best in an effort to successfully achieve individual and group goals (Johnson & Johnson, 1989; Slavin, 1983, 1996). In addition, a cooperative classroom may create a more mastery-oriented context leading students to adopt a mastery goal orientation (Ames, 1992; Kim et al., 2012; Nichols & Miller, 1994; Summers & Svinicki, 2007). As found in the previous section and prior literature in the field of teacher expectancy, high expectation teachers set mastery goals for their students, and they create a more mastery-oriented classroom for students than low expectation teachers (Rubie-Davies, 2007, 2008a). It can be assumed that compared with the students with low expectation teachers, the students with high expectation teachers were more oriented by mastery goals, and more engaged in working with peers to achieve individual and group goals; furthermore, it may be that cooperative learning enhanced student goal mastery orientation as well.

The teachers within different groups seemed to group their students in different ways. Low expectation teachers were likely to let students compose groups freely, so the students could choose group members they liked and develop friendships. Medium and High expectation teachers seemed to assign students into groups, and therefore their students had less chance to choose partners and to become friends. The grouping system may be another reason that the students with Medium and High expectation teachers appeared to share less friendship, although there seemed probably more positive cooperative learning in the classrooms of Medium and High expectation teachers than of Low expectation teachers.

According to the students' responses, the students with Medium and High expectation teachers were more likely to treat cooperation as learning opportunities which they described as "beneficial" and "efficient". Hence the students with Medium and High expectation teachers placed more emphasis on cooperative peer learning than the students with Low expectation teachers. This may be in part because the high expectation teachers create a classroom climate that is more encouraging of students learning from one another than the low expectation teachers, while the low expectation teachers may prefer teacher-led or individual learning. Previous research has also found that students who actively participate in group work learn more than students in competitive or individualistic situations; and students in cooperative learning groups frequently demonstrate both higher achievement and greater productivity (Blatchford, Baines, Rubie-Davies, Bassett, & Chowne, 2006; Blatchford, Kutnick, & Baines, 2007; Larson & et al., 1985; Laughlin & Jaccard, 1975; Laughlin, McGlynn, Anderson, & Jacobson, 1968; Slavin, 1989). In the current study, the students who were engaged in positive cooperation commonly mentioned being inspired by other's new ideas in discussing and sharing with the group; students in cooperative learning seemed to benefit from "process gain" which was defined as new solutions and ideas resulting from the group cooperative effort of sharing and generating information (Ames & Murray, 1982). In addition, the students also reported that cooperating with classmates seemed of great value in enhancing their academic achievement. This probably can be explained by developmental theories of cognitive psychology, which suggest that as students interact to discuss, explain,

elaborate, and teach one another, they enhance their higher-order thinking skills,

retain the information, and understand the concept (Devin-Sheehan, Feldman, & Allen,

1976; Vygotsky, 1978; Webb, 1985). Studies in group work have also demonstrated

that effective group work encourages more collaborative inferential talk involving

reasoning that goes beyond the information provided for the group task; while for the

students who are less involved in group work, they may make less effort to reason,

explore ideas further or investigate evidence (Blatchford et al., 2006; Blatchford et al.,

2007). It seemed that the students who participated actively in cooperation may

engage in higher cognitive interaction than the passive members in the groups. Hence

it can be anticipated that the students who were more engaged in group work may

have had more opportunities for practising and learning than the students who

experienced poor cooperation. This could account for why the students with high

expectation teachers who were more actively engaged in cooperative activities

achieved greater academic gains than the students with low expectation teachers who

were less engaged in group work.

Autonomy. Autonomy is referred to as the extent to which students are allowed

to make decisions about their learning according to their own ability, interests and rate

of working (Fraser et al., 1996; Nair & Fisher, 1999, 2000a). In this section, the

current study explored student learner autonomy which the participants perceived in

the classrooms of the Low, Medium and High expectation teachers, and to find out if

there indeed existed any differences between teacher expectation groups. Specific

questions for student autonomy were like: Are the students generally allowed to work

at their own pace in this class? Are the students allowed to choose activities they like

and are capable of? Do the students have opportunities to pursue their particular

interests? Are the students required to do the same work at the same time?

The Low expectation teachers mostly (five of seven) reported little autonomy

for student learning. Lucy said: "*I assign work to the students, but try to assign the*

work they may feel interested in." Laurence stated: "*I cannot allow them much*

autonomy, because they are just in the first year, not ready for choosing tasks by

themselves … usually I do not let them choose freely." Leo, another Low expectation

teacher, reported: "*It would be a mess if I let the students pick up what they want. I*

try to find a midpoint of task design which can fit students with various ability levels."

The teachers within Medium (five of six) and High expectation (five of seven)

teachers groups commonly reported moderate freedom for students to make decisions

about their learning. They said:

"*Students should have the right to decide their learning. For example, when*

they are preparing a presentation, they choose the topic and materials freely. And for

the same task, if the high-achieving students have finished the task before others, they

can choose to do some extra small tasks." (Molly, Medium expectation teachers)

"*If the students have already completed what I assigned, and wanted to study*

something else on their own while waiting for other students, I would not stop them. I

think it is not necessary to force everyone to march at the same pace." (Mandy,

Medium expectation teachers)

"I offer them multiple choices, usually 4 topics in relation to a concept, and they can choose the one they are interested in and capable of doing. Even for the same task, students with different ability may finish it in different ways, and the results may be quite different; I can understand that." (Hugh, High expectation teachers)

"I usually set the main ideas and basic requirements for the tasks, and leave the rest for their free choice. For example, I asked each group to design a party, and report their plans about the theme, schedule, catering, and all the other details; but they can discuss within the group to decide what party was to be held. The results turned out to be fantastically good; my students have awesome creativity and management skills!" (Hilary, High expectation teachers)

The students with Low expectation teachers perceived limited autonomy for their learning. One student in L1 said: *"We do what the teacher says, no choices and no individualised activities; the only exception is we can decide what to write down in our notebook."* One student in L2 reported: *"Usually the teacher assigns the same task, and everyone has to finish it as she demands. Maybe the teacher does not want to bother."* One student in L6 said: *"The task assigned by the teacher sometimes is not interesting enough, or sometimes too easy, so I am not that into it. But I have no choice but to wait foolishly, because maybe other students like it or cannot finish it soon."*

The students with Medium and High expectation teachers perceived more autonomy for learning than the students with Low expectation teachers did. They stated:

"When we are doing writing work, the teacher gives a topic, but it is optional.

He allows us to choose the topic which we feel more interested in, but the topic of our

choice must be something related." (Student in M3)

"We have much freedom in learning. For example, we can choose a specific

topic for a speech in a certain range. And after finishing the assigned task, if I decide

to do some other English exercises in class, she is okay with that." (Student in M5)

"When the group is preparing for giving a lecture, we can decide what part to

be responsible for; among reading aloud, interpreting the text, and explaining

grammar and so on, one can choose a part which he or she is good at doing."
(Student in H1)

"We have a say in learning tasks. We can choose topics for presentation, so we

can talk freely about whatever we like and want to share with the class. And we

decide the content of dialogue practice about a given topic; the high-achieving

student can make more advanced and enriched dialogues, while the low-achieving

students may create something easier. Everyone gets improved on the basis of his or

her previous level; that is valuable." (Student in H5)

Thus, it seemed that students were allowed more learning autonomy in the

classrooms with high expectation teachers than in the classrooms with low

expectation teachers. The actual learning autonomy in the classrooms confirms what

has been identified in the related literature (Rubie-Davies, 2007, 2008a). It has been

suggested that high expectation teachers believe that students should take

responsibility for their learning and be allowed great learner autonomy in their

instructional activities; while low expectation teachers were likely to take control of what and how the students should learn and hence they may provide uniform instruction and learning opportunities for their students.

Learner autonomy has been evidenced as having a positive relationship with learning outcomes, such as improved task performance and enhanced ability to make independent decisions for students' own learning (Benson, 2011; Lamb & Reinders, 2008; Langfred & Moye, 2004; Spector, 1986; Stewart, 2006; Wielenga-meijer, Taris, Kompier, & Wigboldus, 2010). It has been found that learner autonomy can affect student motivation to learn which in turn can influence the learning outcomes (Colarelli, Dean, & Konstans, 1987; Langfred & Moye, 2004; Wright & Cordery, 1999). Autonomy when learning a task may foster learners' personal responsibility for the outcomes of their task, which may indicate a positive effect on learners' motivation to learn. Consequently, high motivation to learn can increase persistence and willingness to explore alternative strategies, and this may lead to better learning outcomes (Bell & Kozlowski, 2008; Debowski, Wood, & Bandura, 2001). Hence, in the current study, it can be assumed that the students with high expectation teachers, as a result of the more autonomy-supportive classroom climate, were more motivated to learn and explore, and they would achieve more highly than the students with low expectation teachers who were allowed little or no autonomy for their learning.

The teachers within Medium and High expectation groups provided students moderate autonomy for their learning rather than full autonomy. These teachers seemed to offer a range of choices related to a certain topic, and let students choose

what they were interested in and capable of. For students with differing academic levels, these teachers provided various learning opportunities which could satisfy different needs and enhance the learning of every individual student. Both teachers' and students' responses suggested that these teachers created a moderately autonomy-supportive, as well as cognitively demanding, classroom climate. A moderate degree of learner autonomy is beneficial compared to no autonomy, little or full autonomy, because it can most positively increase student motivation to learn, exploration behaviour, and learning outcomes (Wielenga-meijer, Taris, Wigboldus, & Kompier, 2011, 2012). Therefore, it can be anticipated that given the optimal amount of autonomy the teacher provided, the students with Medium and High expectation teachers were likely to achieve well.

The findings of varying amounts of autonomy provided by different teachers may also account for less positive relationships among the students with High and Medium expectation teachers. Greater learner autonomy in these classrooms may have led to students' greater self-reliance, determining and managing their learning independently, and hence these students would be more likely to focus on their own learning and tasks rather than the development of friendship with other students. However, the low level of autonomy allowed by Low expectation teachers required all the students to do the same work at the same time, which may not have helped cultivate those students' independence.

Equity. Equity in the current study was defined as the extent to which students are treated equally by the teacher (Fraser et al., 1996; Nair & Fisher, 1999, 2000a).

Both the teachers and students were investigated about their perception of equal treatment in their classrooms. Questions asked for further information included: Does the teacher give as much attention and help to each students in the class? Does the teacher have his or her favorite student(s) in the class? Does every student have the same opportunity to answer questions and to complete learning tasks?

All the teachers in the current study believed they delivered instruction and treated their students equally. Teachers within Low, Medium and High expectation groups stated:

"I believe every student should be equally treated and be given equal concern by the teacher. I offer the students opportunities to answer questions and take part in activities, but I ask students randomly. I never arrange anything special for anyone in my instructional practice." (Lisa, Low expectation teacher)

"I like everyone in my class; every individual student is lovely. I treat them equally, at least I appear to." (Mandy, Medium expectation teacher)

"I offer chances for everyone equally. There is a sequence for the students doing their jobs; they give speeches and conduct other activities in turn. Generally, every student has equal opportunities for learning." (Hugh, High expectation teacher)

It was interesting that, when further asked about whether they had favourite students in the classroom, more than half of the teachers within the three groups admitted that they preferred some students to others. In addition, the teachers seemed to reach a consensus about the characteristics of those "teacher's pets". They described:

"There are two or three students whom I prefer, to be frank, because they are quite active and working hard. Generally, student participation is positively correlated with learning outcomes, but my preference is primarily based on their attitude towards learning more than the outcomes." (Lincoln, Low expectation teacher)

"I like the students who participate in instructional activities willingly, not the ones who achieve high. It is not a matter of ability or achievement, just because of their initiative to perform actively." (Linda, Low expectation teacher)

"I have favorite students. I like those who cooperate well with my instructions, and interact with me happily. Those students are not necessarily the top students, but they have the most positive attitude." (Molly, Medium expectation teacher)

"My favourite students are performing well in the class. They have the initiative to learn, and maybe they are not achieving highest, even one or two of them not good at English, but they learn diligently. Though sometimes they cannot answer questions perfectly, they always show great willingness to share their answers." (Mary, Medium expectation teacher)

"I prefer the students who cooperate with me actively. Though they are not high-achieving students, they are not afraid of making mistakes, and they work hard. Besides, I like the ones who are good-looking, because they seem smarter than others. Also I like student leaders, such as the monitor." (Harry, High expectation teacher)

"My favourite students are not the top ones. I prefer the students who work hard, participate actively and explore creatively." (Helen, High expectation teacher)

Though most teachers had their preferred students in the classrooms, they maintained that their preference was not known by their students. They said:

"The students do not know whom I prefer, because I do not deliberately give my favourite students extra opportunities or care." (Leo, Low expectation teacher)

"I do prefer some students, but that is my private feeling and I treat everyone the same. At least my behaviour towards students does not let out my attachment to any one of them." (Martin, Medium expectation teacher)

"I do not express my personal attachment; I just focus on the tasks the students completed. I appreciate the jobs well done, no matter who did that. I always keep neutral; I may praise for one's work or ability, but not for the person." (Heather, High expectation teacher)

Teachers perceived that students would not know who their favourite students were. However, the students with Low, Medium and High expectation teachers commonly perceived that their teachers preferred particular students over others in the same classroom, and the students realised that the teacher had a more positive personal relationship with his or her pets due to the teacher's special attachment to particular students. They talked about the teacher's differential affective behaviour::

"There are several ones who are specially loved by the teacher; we all know that. They have a more intimate relationship with the teacher." (Student in L2)

"The teacher would love to get to know everyone, but one or two students interact with the teacher more frequently and more actively, so they are more familiar with each other." (Student in L7)

"At least the teacher knows his [the teacher's pet] *full name by heart, but not that sure about other students' full names."* (Student in M2)

"The teacher has more contact with him [the teacher's pet]*; the teacher often talks with him before or after class."* (Student in M5)

"The teacher does prefer some of us, and we know who those pets are. The teacher is more familiar with his pets." (Student in H3)

"The teacher usually makes jokes with his beloved students, and the pets behave more casually in the classroom than the rest of the students." (Student in H4)

Furthermore, the students also reported that the teacher provided differentiating learning experiences for the pets and other students. They said:

"The teacher gives more opportunity to the ones he prefers. When the teacher asks a question, and no one volunteers to answer, the teacher usually calls his favourite students to answer. As a matter of fact, a bunch of pets are provided with more opportunity." (Student in L2)

"Sometimes we do not bother to answer the teacher's questions, just waiting for the teacher's pets; they always volunteer to respond actively." (Student in L6)

"If one of the teacher's favourite students makes a mistake, the teacher will not think it a big deal; but if one of the other students does the same foolish thing, the teacher probably would not treat the student without prejudice." (Student in M5)

"At the beginning, the teacher offered us equal opportunity, but not everyone could grasp it successfully. Now, the one who has caught the chance becomes the teacher's favourite, and it is no longer completely fair play." (Student in M6)

"The teacher cares more about his pets, and gives them more opportunities. It is impossible to achieve absolute equity. The pets love to answer questions and take an active part in activities; no wonder they obtain more chance to perform and learn." (Student in H3)

"The teacher is more familiar with them [the pets]*, both their ability and personality. Therefore the teacher is more likely to invite them to cooperate with her. It is a kind of subconscious decision, though we know the teacher is trying to make the class equal."* (Student in H5)

All the teachers in the current study appeared to maintain the belief that they created an equal class for all their students; however, this view was contradictory to the "teacher's pet" phenomenon in the classrooms that most teachers and students reported. The teachers all acknowledged that showing their preference was harmful to student learning, as Heather argued: *"I do not display my preference … I have attended some pedagogical courses; I know differentiation is unfair, and other students would be affected negatively … so I always try to remind myself of controlling my behaviour."* The teachers attempted to avoid preferential treatment of their favourites in their instructional practice, and they may have been convinced that they could successfully conceal their affect. However, the students could identify teacher favourites in the classroom, which indicated the teachers' uncontrollable leakage of affect (Babad et al., 1989a). It confirmed the findings of previous research that the "teacher's pet" phenomenon could be easily recognised and was highly prevalent in classrooms (Babad, 1995; Tal & Babad, 1990).

It can be seen that the teachers' favourites shared some similar characteristics. "Active" and "working hard" were key words used to describe favourite students. The teachers all seemed to prefer students who were more engaged in instructional activities to those with resistance or low participation. The teachers' preference, to a great extent, appeared to be based on student initiative for learning rather than their achievement or performance. This finding is consistent with previous literature which has identified the characteristics of teachers' pets as "academically excellent, but not always the best in the classroom" and "most actively participating in the classroom" (Tal & Babad, 1990).

It has been found that a teacher's tendency to have pets is related to teacher differential treatment toward high- and low-achievers (Babad, 1995), and the differentiation is usually considered to provide clues related to teachers' differing expectations for high- and low-achievers (Brattesani et al., 1984; Weinstein et al., 1982); therefore, it can be anticipated that the teacher's differential treatment of different students may be more pronounced in classrooms where the teacher prefers particular students over others. In almost all the mediation models of teacher expectation effects (Brophy, 1983; Darley & Fazio, 1980; Rubie-Davies, 2008a; Weinstein, 2002), teachers' differential treatment has been documented as a crucial mediator of teacher expectancy effects. However, in the current study, it seems that "equity" did not work as a function of normative teacher expectations. Unlike the other six dimensions of classroom climate, the degree to which the teachers treated their students equally was not related to teachers' normative expectations for all their

students and it did not vary across teacher expectation groups. Hence it can be concluded that equity may not mediate teacher normative expectations on overall student outcomes.

Explanation for classroom climate. Study 3 investigated the participants' beliefs about the major contributors to a satisfying and an unsatisfying climate in their classrooms. The teacher responses showed group differences in their explanations. When asked about the main cause of a satisfying classroom climate, the teachers in Low and Medium expectation groups seemed to attribute a successful classroom climate to their students. They said:

"The students were working hard; we had a very attentive classroom climate. This should be ascribed to the students' effort." (Lisa, Low expectation teacher)

"The most satisfying thing is the students working attentively; they have a positive attitude towards learning. Hence the students take the main responsibility of achieving that." (Laurence, Low expectation teacher)

"The students are readily working with me; they responded enthusiastically. I play a role of guide and their work is the most important reason for creating a satisfying classroom climate." (Melisa, Medium expectation teacher)

"My students are working hard. They follow my instructions and complete the assignments well. It is not hard to steer their learning, because they take the initiative to learn." (Maria, Medium expectation teacher)

However, almost all teachers within the High expectation group appeared to attribute the positive classroom climate to themselves. They were convinced that

their particular contribution resulted in successfully creating the positive classroom climate. Harry stated: "*The best thing in the classroom climate is the innovative instructional planning. I offer the students access to what they did not see or know before, and I give them different viewpoints. Definitely, it is my contribution.*" Hayley said: "*Both the students and I are satisfied most with the lighthearted classroom climate. The students like attending the course; they learn and perform pleasantly in the classroom. I believe it is the teacher, me, who has the capability of creating such a fantastic classroom climate.*" Heather reported: "*I am proud of the positive interaction with the students. The reason behind that is my instructional approach and my effort to communicate with them, so they cooperate with my instructional practice well.*"

When it comes to the dissatisfying aspects of classroom climate, there were also differences in teacher responses across the teacher expectation groups. The Low and Medium expectation teachers collaboratively ascribed a problematic classroom climate to external causes—the students, curriculum settings, syllabus, schedules, and educational policies—rather than to the instructors themselves. They argued:

"*I feel the students have not adapted to the instructional approaches at university. They are still clinging to high school styles. This is not a problem in this specific English course; actually, they have the same problem in other courses … I did a simple survey among the students. I think it is mainly caused by the curriculum syllabus and even the national policy of higher education.*" (Lily, Low expectation teacher)

"I tried to teach in an innovative way, offering a variety of activities, but still

not enough. It is mainly because the class time is limited, less than four hours per

week. This constrains classroom instruction and the teacher–student interaction."

(Laurence, Low expectation teacher)

"The instructional activities are not abundant enough. We emphasise the

exercises of listening and speaking skills, but pay less attention to writing and reading.

The curriculum and syllabus need to be optimised. There is too little time but too

many requirements and tasks." (Molly, Medium expectation teacher)

"The students do not like the content of the textbook; they prefer something

extracurricular. But they cannot perform well in examinations if we abandon the

textbook. I do not think this is the students' fault, and I can understand their needs

from their point of view. What the students need contradicts the examination criteria.

If the textbook was more appealing, the problem would be solved." (Maria, Medium

expectation teacher)

The teachers in the High expectation group also reported what they felt

dissatisfied with in the classroom climate, but they generally seemed to attribute

negative aspects of the classroom climate to themselves. Helen said: *"Some*

instructional activities are not successful, because the students are not interested in

them, for example reading a text which is not fun. Probably my instructional design is

the main cause which cannot fully arouse their interest. I need to adjust the

instructional materials and methods." Hugh reported: *"The students have not*

developed the habit of efficient self-learning. They need more guidance from me.

What I teach does not match their needs well; the high-achieving students feel the

learning materials are a little bit easy. It seems my instruction should be adjusted to

include more difficult content." Hans said: "*What I feel bad about is that a very small*

number of students do not participate in the class actively. They are afraid of making

mistakes and are shy. It is my fault, because I used to call their names and gradually

it has become a routine that they wait passively. I need to figure out a way to

encourage them to perform bravely and join the class actively."

In the focus groups, the students discussed who was responsible for creating a

certain classroom climate. Students within different expectation groups of teachers

seemed to reach an agreement that the teacher was the most decisive factor of a

positive classroom climate. They explained:

"*The teacher does not criticise us, and we feel little pressure. The teacher*

creates an easy environment for us; it does not matter if we make mistakes." (Student

in L3)

"*The positive classroom climate should be mainly credited to the teacher! She*

asks about our needs and respects our views. She always makes us feel good."

(Student in M4)

"*The best thing in the class is the teacher's guidance and help. He broadens*

our horizon, lets us become exposed to something we never knew. The teacher

provides us with a lot of opportunities to try something for the first time." (Student in

H3)

There was a different pattern among the focus groups to the explanations for the negative aspects of the classroom climate. The students with the Low expectation teachers seemed to attribute a poor classroom climate to the teacher. One student in L1 stated: "*There are very few kinds of activities in our class; it is the teacher's job to design various learning tasks. In addition, a university class should be student-centred, but that is not the case in this classroom. We do not have an active classroom climate; the teacher should be responsible for it.*" One student in L4 said: "*I think that the university teacher should give us something to inspire our thoughts, and interact more with us, so that we would be more active to join the class.*" Another student in L6 criticised the teacher's differentiating treatment, and said: "*The high-achievers and the teacher's pets are given more opportunities, but low-achievers and shy students can obtain far fewer. The teacher should notice that and care more about those who are always silent.*"

Meanwhile, the students with the Medium and High expectation teachers were more likely to blame themselves for the negative aspects of the classroom climate. They said:

"*It is mainly because I do not have a clear goal for learning English at university. I feel confused about what is more important, to practise listening and speaking, or to pass the CET-4? As a result, I sometimes do not participate actively in the class.*" (Student in M5)

"*A negative classroom climate is rooted in ourselves. University is a new environment to us, so now everyone is attempting to adapt to it. We are grown-ups*

now, considering more about how others may think of us. We become more cautious. For example, at times I worry about whether to volunteer to answer a question; if answering it correctly, maybe others would think I am showing off; if giving a wrong answer, others may laugh at me." (Student in M1)

"*I have not adjusted my learning habit in the right direction. Learning at university is my own career, and the teacher is just the guide. I need to find out how to learn independently.*" (Student in H3)

"*I think it is my fault. In high school, I was learning with the force of the teacher and parents, now I must be self-motivated.*" (Student in H6)

The teachers' responses suggested differences in their explanations for a positive or negative climate depending on expectation groups. The teachers within Low and Medium expectation were likely to credit a positive classroom climate to student effort and the High expectation teachers tended to attribute it to the instructor's ability and effort. The Low and Medium expectation teachers seemed to blame a negative classroom climate on the curriculum settings or students; and the teachers within the High expectation group still viewed their work as the primary cause. Thus, the teachers with low and medium expectations were more likely to attribute the classroom climate to external contributors, while the high expectation teachers were more likely to view themselves as the main creator of the classroom climate.

The students with different expectation teachers all perceived that the teachers' effort was of most significance in creating positive aspects of the classroom climate.

For a negative classroom climate, the students with the Low expectation teachers tended to ascribe a poor classroom climate to the teachers, but the students with the Medium and High expectation teachers were more likely to believe that students themselves, more than other factors, were responsible for a dissatisfying climate in the classroom.

Previous teacher expectancy research has identified some individual differences in teacher role definition; that is, differences in the degree to which the teacher assumes personal responsibility for student outcomes (Brophy, 1983). Differing teacher role definition, as a component of teacher beliefs, may account for teachers' different explanations for the classroom climate. In the current study, the high expectation teachers seemed to view their work as the decisive contributor to the classroom climate; it can be assumed that the high expectation teachers probably had more sense of control over the outcomes of the classroom climate. However, the low and medium expectation teachers appeared to believe that a particular classroom climate was the result of student behaviour or the curriculum; this finding may reflect that low and medium expectation teachers lacked confidence to make a difference in classroom climate. The high expectation teachers' belief in their ability to influence the classroom climate indicated a high self-efficacy; while the low and medium expectation teachers' belief in factors external to themselves may indicate a poor self-efficacy (Tschannen-Moran et al., 1998). In Study 2, it was also found that high expectation teachers emphasised creating a positive classroom climate and tended to take responsibility for doing so more than low expectation teachers. The high

expectation teachers may be more likely to adjust their own behaviours in awareness of a problematic classroom climate; while the low expectation teachers may be more likely to give up on trying to improve the classroom climate, particularly if they do not accept responsibility for the climate. Therefore it can be anticipated that the climate in the classrooms with high expectation teachers may be more positive than that with low expectation teachers.

From the students' responses, it can be seen that the salient difference between the students with high and medium expectation teachers and the students with low expectation teachers was that the former accepted responsibility for a poor class climate while the latter tended to blame it on the teacher. One possible explanation may be that the students with high expectation teachers were more satisfied with the teacher's work and were more convinced of the teacher's effectiveness. This may help to build a more positive relationship between high expectation teachers and their students than their low expectation counterparts, as documented in the previous section exploring teacher–student personal relations. Another explanation probably was that the students with high and medium expectation teachers may take more responsibility for their learning than their peers with low expectation teachers. In previous sections and in the existing literature, it has been suggested that high expectation teachers are likely to highlight student participation in and responsibility for learning more than the teachers with low expectations (Rubie-Davies, 2007, 2008a). Furthermore, high expectation teachers appear to set clear mastery goals for student learning (Rubie-Davies, 2007) and allow students to learn with autonomy

more than low expectation teachers do. Consequently, the students with high and medium expectation teachers may develop more responsibility for their classroom behaviours and learning outcomes than the students with low expectation teachers. It can be anticipated that the rapport with the teacher and the sense of responsibility may help the students with high and medium expectation teachers to work with the instructor to create a more positive classroom climate than the students with low expectation teachers.

Summary

Study 3 explored the classroom climate of College English course classrooms in relation to teacher expectation groups, using three categories: the teacher preferred classroom climate; the actual classroom climate (as perceived by the participants); and an explanation for the actual classroom climate. The results showed that the climate in the classrooms varied across Low, Medium and High expectation teacher groups.

First of all, teachers with low expectations preferred a friendly classroom climate, while teachers with high and medium expectations desired a classroom climate which was not only friendly, but also demanded active involvement by the students.

For the actual classroom climate, there were differences between teacher expectations groups in six of the seven factors that were investigated: teacher–student relationships, innovation, student cohesiveness, task orientation, cooperation, and autonomy. It seemed that Low expectation teachers had a less caring personal

relationship with their students while Medium and High expectation teachers shared a more pleasant rapport with the students. Low and Medium expectation teachers seemed to provide less innovative instruction than High expectation teachers did. The students with Low expectation teachers appeared to be friendlier and warmer towards each other than the students with High and Medium expectation teachers. Low and Medium expectation teachers were perceived to provide less clear and less organised instruction; however High expectation teachers appeared to set carefully designed tasks for instruction and more importantly, tended to have integral plans for the whole course which were made up of objectives for student learning throughout the course. There appeared to be more frequent cooperation between students with Medium and High expectation teachers than those with Low expectation teachers. The students with Medium and High expectation teachers were engaged in and benefited from cooperative learning more than the students with Low expectation teachers, but the students with Low expectation teachers were more likely to develop friendship through cooperation than the students of the other two groups. High and Medium expectation teachers may allow their students more autonomy for learning and let the students make decisions for their learning more so than Low expectation teachers who seemed to allow no or limited autonomy for student learning.

For the final factor investigated, that of equity, all the teachers within the three expectation groups believed that they treated students equally, but most teachers also admitted that they preferred some students over other students. The students commonly were keenly sensitive to the "teacher's pet" phenomenon even though the

teachers attempted to conceal their attachment to particular students, and the students were also aware of teacher differential treatment which resulted in differing emotional experiences and learning opportunities for students in the same classroom. It seemed that the degree of equity was not a factor related to teachers' normative expectations.

In addition, teachers with differing expectations seemed to explain the classroom climate differently. Low and Medium expectation teachers tended to attribute both a positive and negative classroom climate to external causes such as the students, course norms or the curriculum; while High expectation teachers were likely to attribute both a positive and negative classroom climate to the instructor's ability and effort. The students with Low expectation teachers tended to ascribe failure and success in classroom climate to the teacher; while the students with Medium and High expectation teachers seemed to credit a positive classroom climate to the teacher but take responsibility for a negative classroom climate.

To summarise, it seems that classroom climate may vary in line with teacher expectations for the whole class. Differences in classroom climate between high, medium and low expectation teachers may suggest differences in the learning opportunities provided to their students and may affect students' motivation for participating in learning opportunities. Study 3 has provided evidence that normative teacher expectations probably played a role in creating a particular classroom climate affecting student affective variables and learning behaviours, which may mediate teacher expectation effects on student future academic achievement.

The mediating role of classroom climate has been discussed a great deal in the

teacher expectancy field (e.g., Babad, 1998; Harris & Rosenthal, 1985; Rosenthal, 1991; Rubie-Davies, 2008a; Weinstein & McKown, 1998), but there is a paucity of research that has explored the moderator role of classroom climate on teacher expectation effects. The following chapter will explore classroom climate as a moderator of normative teacher expectancy effects, and will try to identify the climate in which normative teacher expectations might show the strongest relationships with student outcomes.

Chapter 6 Study 4: Exploring Classroom Climate as a Moderator of Normative Teacher Expectation Effects

The previous chapter discussed how classroom climate may mediate normative teacher expectation effects on overall student outcomes, suggesting that teachers with differing expectations for entire classes may help to create different classroom climates. Different classroom climates may generate different associations with student affective and behavioural variables, and in turn may influence overall student achievement. Study 4 was designed to explore classroom climate as a moderator of normative teacher expectation effects. Seven factors of classroom climate were examined respectively to identify their effects on the relationship between normative teacher expectations and the overall student achievement. The moderation effects of classroom climate were analysed across the whole sample and for specific teacher groups as well. The major hypotheses for Study 4 were:

1. The seven classroom climate factors would moderate normative teacher expectation effects.

2. Based on the nature of those classroom climate factors, they may moderate normative teacher expectation effects in a positive or negative direction.

3. The moderation effects of classroom climate may also be a function of teacher expectation groups; the moderation effects of those classroom climate factors would be more pronounced for a certain teacher group but not for others.

Method

    Participants. The participants in this study were 20 teachers and their 845

students from the 20 classes. The 20 teachers who held low, medium or high

expectations for all their students at the beginning of the 2011 school year were

randomly selected from the Low expectation ($n = 7$), Medium expectation ($n = 6$) and

High expectation ($n = 7$) teacher groups identified in Study 1; and the students in one

class of each teacher formed the student participants in relation to the teacher

expectation groups ($n = 223$ students of Low expectation teachers; $n = 296$ students of

Medium expectation teachers; and $n = 326$ students of High expectation teachers).

    Measures. The measures were used to examine teacher expectations, student

year-end achievement and student perceived classroom climate.

    Teacher expectation scale. At the beginning of the school year, within three

weeks after meeting with their new students, the teacher participants were invited to

respond to the Teacher Expectation Scale. This was a 9-level scale which asked

teachers to predict the approximate score each individual student will obtain in the

CET-4 held a school year later (see Study 1). The teachers' responses to the scale

were used and interpreted as teacher expectations for student later achievement in

learning English as a foreign language.

    Teacher expectation group. By running hierarchical clustering (the Ward

method and k-means clustering), the teacher participants were allocated to one of

three groups based on their class-level expectations (see Study 1)—Low expectation

teachers ($M = 2.13$, $SD = 0.47$), Medium expectation teachers ($M = 3.37$, $SD = 0.61$), and High expectation teachers ($M = 4.77$, $SD = 0.38$).

College English Test Band 4. All the student participants attended the College English Test Band 4(CET-4) which examines their English language proficiency in June, 2012, and their scores were announced one month later (see Study 1). Student scores were aggregated by class, and the means of each class were calculated. The score for each class was interpreted as overall class achievement in learning English as a foreign language at the end of the school year (overall $M = 438.81$, $SD = 12.33$).

College and University Classroom Environment Inventory. The College and University Classroom Environment Inventory (CUCEI) was developed in 1986 (Fraser & Treagust, 1986; Fraser et al., 1986) and modified in 1999 (Nair & Fisher, 1999, 2000b). CUCEI was initially developed for classes at upper secondary and tertiary level. The original survey instrument contained seven 7-item factors. Later, Nair and Fisher modified the instrument, replacing the involvement and satisfaction factors with two new ones, cooperation and equity (Nair & Fisher, 1999, 2000b). Study 4 used the modified version of CUCEI whose validity and reliability have been widely documented to be robust (Coll, Taylor, & Fisher, 2002; Dorman, 2012; Joiner, Malone, & Haimes, 2002; Logan, 2007; Nair & Fisher, 2000b, 2001; Strayer, 2012). The seven factors in the inventory are: teacher–student relationship (extent of the instructor's concern for students' personal welfare and opportunities for individual students to interact with the instructor), innovation (extent to which the instructor plans new, unusual activities, teaching techniques and assignments), student

cohesiveness (extent to which students know, help and are friendly towards each other), task orientation (extent to which class activities are clear and well organised), cooperation (extent to which students cooperate on learning tasks and learn through cooperation), autonomy (extent to which students are allowed to make decisions about learning according to their own ability, interests and rate of working), and equity (extent to which students are treated equally by the teacher). These factors covered the three general categories of classroom dimensions identified by Moos: relationship, personal development and system maintenance and change (Moos, 1974). For each of the 49 items in the scales, participants were given five-point rating scales of *False, Mostly False, Sometimes False Sometimes True, Mostly True, and True*. Item responses were scored 1, 2, 3, 4 and 5, with the scoring direction reversed for negative items ($n = 14$) so that 5 always represented the most positive response (overall teacher–student relationship: $M = 3.93$, $SD = 0.30$; innovation: $M = 3.49$, $SD = 0.49$; student cohesiveness: $M = 3.66$, $SD = 0.26$; task orientation: $M = 3.78$, $SD = 0.32$; cooperation: $M = 3.99$, $SD = 0.29$; autonomy: $M = 3.15$, $SD = 0.18$; and equity: $M = 4.31$, $SD = 0.09$). Student responses to the CUCEI were aggregated by class, and the means for each class in the seven factors were calculated. The scores for each class were used and interpreted as the classroom socioemotional climate. A copy of the CUCEI is in Appendix C.

Data collection. Collection of teacher expectations and student CET-4 scores has been discussed in Study 1. For the data of classroom climate, in the middle of the school year, February 2012, students were required to fill out the questionnaire

(CUCEI) about their perception of the instructional and socioemotional climate in their College English classrooms. The CUCEI questionnaire was put on an online survey system (Zheng, 2008); students filled it out on computers and the system gathered all the responses and transferred the data into an SPSS file. The collection of CUCEI data was completed within one month.

Results

Since the CUCEI had not been validated in the context of mainland China before, both an exploratory factor analysis (EFA) and a confirmatory factor analysis (CFA) were performed. To determine the best factor structure to represent the CUCEI, the whole sample of 4,617 students was randomly split into two groups of approximately equal size. The SPSS Version 20.0 software was used for random sample selection. The first half of the sample (Sample 1) was used for the exploratory factor analysis ($n = 2298$), while the second half (Sample 2) was used for the confirmatory factor analysis ($n = 2319$) (Bandalos, 1993; Cudeck & Browne, 1983; Gerbing & Hamilton, 1996; MacCallum, Roznowski, Mar, & Reith, 1994).

The exploratory factor analysis was conducted using SPSS 20.0 with Sample 1 to investigate the factors underlying the CUCEI. The principal axis factoring methods with promax rotation were used to assess the factor structure. These methods were chosen because it was assumed that the factors describing the CUCEI structure might be correlated (Fabrigar, Wegener, MacCallum, & Strahan, 1999; Finch & West, 1997; Gorsuch, 2013; Tabachnick & Fidell, 2012).

Eight factors with eigenvalues over 1.0 were extracted. The initial eight-factor

solution and rotated factor loadings are presented in Table 6.1. In order to identify

items most representative of the constructs, a factor loading cut-off of .40 (explaining

around 16% of variance) was chosen a priori based on previous psychometric research

(Comrey & Lee, 1992; Stevens, 2009; Tabachnick & Fidell, 2007). As a result, five

items (Item 12, 27, 36, 41, and 42) were removed because they showed absolute

values below .40. In addition, factors that consisted of fewer than three items were

removed (Tabachnick & Fidell, 2007). Hence the eighth factor was eliminated

because it contained only one item (Item 7).

Table 6.1

Initial EFA Factor Loadings (N = 2298)

Item	Factor							
	1	2	3	4	5	6	7	8
34	.883	-.047	-.011	.001	-.005	-.002	.035	.005
33	.873	.048	-.039	-.035	.038	-.060	-.046	.051
35	.863	.016	-.033	.011	.028	-.022	.002	.017
31	.862	-.039	.029	.006	-.060	.031	-.030	.010
32	.741	.065	.024	-.030	.031	-.060	.040	.044
29	.714	-.016	.068	.018	-.044	.094	-.024	-.007
30	.670	-.015	.030	.002	.027	.000	.097	.003
45	-.001	.869	-.035	-.005	.031	-.028	.009	.021
47	-.005	.864	.009	-.085	-.010	-.022	-.016	.029
49	.008	.862	.027	-.108	-.006	-.017	-.026	.040
46	-.047	.769	.035	.093	-.010	-.028	.064	.050
48	.018	.731	.041	.026	-.005	-.021	.009	.042
44	.001	.704	.004	.083	-.006	.061	.051	.008
43	.045	.702	-.041	.020	.005	.045	-.009	.012
11	.023	.022	.873	.045	.023	-.038	-.007	-.145
10	.034	.021	.818	.102	-.001	-.017	-.078	-.127
9	-.009	.040	.806	.054	-.002	.022	-.097	-.106
14	-.018	-.028	.692	-.123	-.038	-.017	.014	.212
8	.025	-.007	.691	-.076	-.013	.030	-.024	.187
13	-.008	-.007	.677	.002	.016	-.017	.091	-.141
3	.023	-.015	-.073	.897	.005	-.029	-.008	.031
2	-.007	-.001	-.032	.855	-.035	-.021	-.032	.072
4	.016	.026	-.061	.809	-.044	.036	-.031	.059
1	-.027	.040	.033	.723	-.009	.020	-.034	.051
5	-.012	-.082	.079	.672	.068	-.069	.063	-.024
6	-.020	-.003	.114	.635	.005	.005	.080	-.035
18	-.032	-.024	-.014	.005	.779	.001	-.029	.145
16	.002	.045	-.016	-.017	.740	-.027	-.016	-.157
15	-.051	-.004	.046	-.062	.730	-.011	-.060	.107
17	.003	.019	-.004	.093	.710	-.008	.090	-.175
20	.049	.034	-.012	.034	.665	.080	.030	-.115
19	-.008	-.058	-.021	.028	.644	-.002	.012	.125
21	.105	-.003	-.003	-.097	.513	.051	-.075	.203
26	.026	.027	-.013	.015	-.046	.769	.016	-.042
22	-.018	.002	-.073	-.015	.056	.751	.005	-.088
23	.096	.016	-.059	-.012	-.015	.708	-.015	-.107
24	-.044	-.054	.021	-.062	.044	.666	.020	.117
25	-.069	-.006	.118	-.035	.030	.655	-.047	.197
28	.060	.004	.107	.096	-.031	.612	.034	-.044
39	.024	-.014	-.024	-.022	-.027	-.011	.817	-.036
38	.035	.034	-.025	.013	.016	-.020	.735	-.010

37	.014	-.008	-.073	.017	-.015	-.023	.643	-.091
40	-.012	.084	.040	-.015	-.044	.158	.585	.040
7	.063	.106	-.054	.261	-.016	.030	-.127	.426[*]
41	-.012	-.052	.163	.105	.083	.057	.220	.383[*]
42	-.044	-.044	.071	.006	.026	-.122	.340	.375[*]
12	.034	.092	-.118	-.045	.020	-.021	-.084	.364[*]
27	.052	.090	.006	.117	.044	.042	-.148	.279[*]
36	-.152	-.075	.050	-.091	.011	-.140	-.014	.173[*]

Note. [*] item eliminated.

Once those items were deleted, the exploratory factor analysis was rerun to ensure that the remaining items had identical factor loadings and all factor loading values were above .40. The analysis yielded a seven-factor construct which accounted for 57.95% of the total variance, and all items demonstrated substantial factor loading values above .40 (see Table 6.2). Based on their factor loadings and meanings, the items in the seven factors were summarised as: teacher–student relationship, innovation, task orientation, student cohesiveness, cooperation, autonomy, and equity. The final solution corresponded with the seven factors of the original CUCEI version, with 6 items removed.

Table 6.2

Final Exploratory Factor Analysis Results of CUCEI (N = 2298)

Item	Factor loading						
	Cooperation	Equity	Student cohesiveness	Teacher-students relationship	Innovation	Task orientation	Autonomy
34	.881						
31	.866						
33	.865						
35	.860						
32	.733						
29	.722						
30	.673						
45		.871					
47		.867					
49		.865					
46		.776					
48		.737					
44		.706					
43		.703					
18			.814				
15			.757				
19			.682				
16			.670				
17			.635				
20			.614				
21			.565				
3				.898			
2				.853			
4				.801			
1				.724			
5				.673			
6				.634			
11					.866		
10					.808		
9					.798		
8					.677		
14					.672		
13					.665		
26						.742	
22						.704	
25						.690	
24						.685	
23						.650	
28						.592	
39							.832
38							.744
37							.665
40							.577

A confirmatory factor analysis was performed using AMOS 20.0 on the second

half of the data set (Sample 2) to test the seven-factor solution developed using the

exploratory factor analysis, with 2,319 cases. The seven latent variables were the

seven factors identified through the exploratory factor analysis, and the 43 observed

variables were the actual items. Correlations between some of the residuals within a

dimension were made to improve the fit of the model (see Figure 6.1). The current

study employed multiple fit indices to evaluate the seven-factor solution derived from

the EFA, namely Chi-square, Chi-square/df ratio, the Comparative Fit Index (CFI),

Root Mean Square Error of Approximation (RMSEA), Tucker-Lewis Index (TLI), and

Standardised Root Mean Square Residual (SRMR). CFI and TLI values usually range

from 0 to 1, and values greater than .90 are considered to be evidence of good model

fit (Schumacker & Lomax, 2004). RMSEA values of less than .06 are indicative of

good model fit (Hu & Bentler, 1999; Schumacker & Lomax, 2004). SRMR values

below .08 are also suggestive of good fit (Hu & Bentler, 1995). The final result of the

confirmatory factor analysis provided goodness-of-fit indices [Chi-square = 2611.388;

chi-sq/df ratio = 3.374; TLI = .964; CFI = .969; RMSEA = .032; SRMR = .0354],

indicating that the model fit the data well.
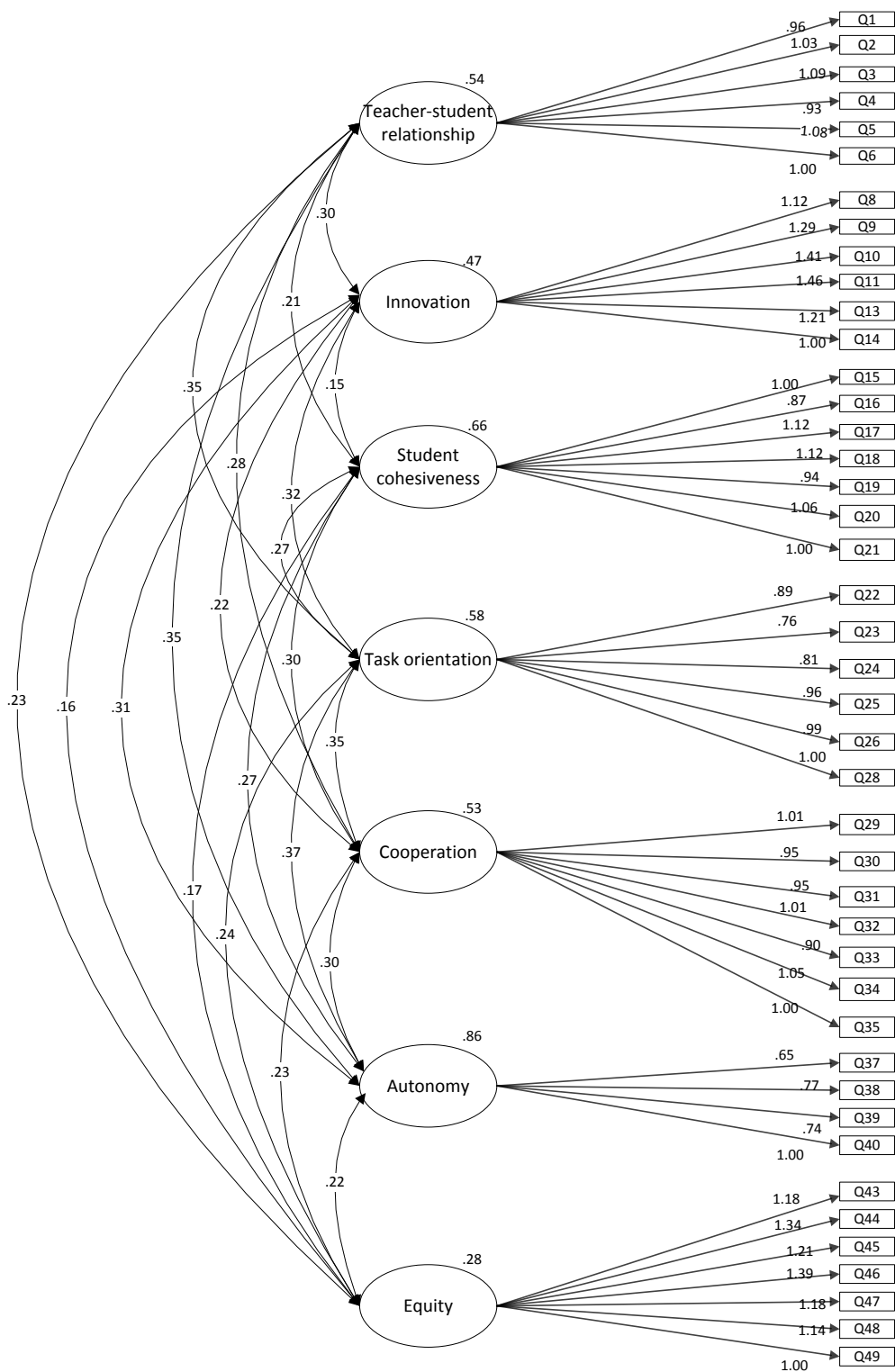
Figure 6.1 Confirmatory factor analysis output of CUCEI.

Internal consistency of the final version CUCEI was also examined by calculating alpha reliability coefficients using SPSS 20.0. The overall and individual alpha coefficients for the seven factors are shown below (see Table 6.3).

Table 6.3

Internal Consistency Reliability Results for the Modified CUCEI

Classroom climate factor	Factors reliability coefficient (α)
Teacher–student relationship	.89
Innovation	.88
Student cohesiveness	.86
Task orientation	.84
Cooperation	.93
Autonomy	.80
Equity	.93
Overall	.95

The overall and individual alpha coefficients were good, ranging from .80 to .95. One factor, innovation, contained an item whose elimination caused the alpha coefficient to slightly go up from .880 to .881, but no other factors contained such items; hence no changes were made. To sum up, the modified CUCEI with 43 items under seven factors applied well to the sample in Study 4.

As Study 1 identified, teachers may hold similar expectations for all the students in their classes, and their expectations for the whole class appear to influence

the overall class outcomes. Classroom climate also referred to a classroom property

which was perceived and shared by the entire class rather than by individual students.

Therefore teacher expectations, classroom climate and student achievement were

aggregated by class as classroom-level variables. The means of teacher expectations,

student responses to the CUCEI and student entrance exam and CET-4 scores were

calculated in each classroom (see Table 6.4).

Table 6.4

Means of Teacher Expectations, Student Entrance Scores, CET Scores and CUCEI Responses for Each Class

Class	Teacher expectation	Entrance score	CET score	T-s relationship	Innovation	Student cohesiveness	Task orientation	Cooperation	Autonomy	Equity
1	2.62	113.50	427.31	4.42	4.20	3.70	4.09	4.01	2.88	4.26
2	4.22	114.26	441.88	3.31	3.24	3.91	3.44	4.34	3.37	4.37
3	4.52	112.90	448.25	3.84	3.80	3.70	3.85	4.14	3.23	4.35
4	4.35	117.79	439.37	3.47	2.86	4.01	3.81	4.40	3.15	4.45
5	5.08	114.81	449.72	3.81	3.77	3.81	3.82	4.26	3.33	4.38
6	5.35	118.76	458.33	3.93	3.88	3.59	3.96	4.11	3.21	4.26
7	3.57	116.88	440.85	4.17	3.76	3.99	4.04	4.26	3.05	4.38
8	3.10	113.40	434.52	4.39	3.77	3.68	4.21	4.04	3.18	4.36
9	1.25	115.61	420.79	4.14	3.09	3.39	3.19	3.63	3.05	4.17
10	2.96	115.63	436.11	3.91	3.37	3.78	3.55	4.29	3.14	4.29
11	2.07	115.88	430.36	3.98	2.83	3.63	3.32	3.85	3.11	4.20
12	2.36	116.14	424.25	3.74	3.03	3.44	3.71	3.57	3.04	4.26
13	1.93	115.89	433.89	3.29	2.49	3.81	3.21	3.99	3.24	4.32
14	2.69	113.08	428.38	3.91	3.16	3.56	3.31	3.75	3.53	4.33
15	3.64	116.26	440.33	4.16	3.66	4.23	4.02	4.16	3.41	4.30
16	4.59	117.26	456.87	4.09	4.14	3.54	4.08	4.08	3.09	4.44
17	4.72	116.64	457.87	4.15	4.18	3.53	4.06	4.04	3.15	4.40
18	4.90	118.27	456.33	4.00	3.98	3.56	4.02	4.08	3.12	4.32
19	2.52	114.90	429.03	3.94	3.28	3.13	4.03	3.45	2.77	4.16
20	2.10	116.79	421.76	3.96	3.32	3.28	3.91	3.42	2.96	4.18

To test the moderation effects, there needs to be evidence that the moderator variable affects the direction and/or strength of the relation between an independent variable and a dependent variable (Baron & Kenny, 1986). In Study 4, that meant checking whether and how the classroom climate as the moderator variable may affect the relationship between teacher expectations, the independent variable, and student achievement, the dependent variable. Hierarchical linear regressions were performed, and, to investigate the interaction effects of the moderator variable and independent variable, the product of moderator and independent variable was also added to the regression model (Cleary & Kessler, 1982; Cohen & Cohen, 2003). If the regression coefficient for the product is statistically significant ($p < .05$), this can be interpreted as a statistically significant moderation effect, indicating that the effect of the independent variable on the dependent variable changes as a function of the moderator (Baron & Kenny, 1986) . Each factor of classroom climate was examined and the moderation effects of the seven factors of classroom climate for all the 20 classrooms are presented in Table 6.5.

Table 6.5

Moderation Effects of the Seven Classroom Climate Factors for 20 Classes, Predicting CET Achievement

| | | Regression coefficients of classroom climate factor (CCF) | | | | | | | | | | | | | | | | | | | |
| | | T-s relationship | | | Innovation | | | Task orientation | | | Student cohesiveness | | | Cooperation | | | Autonomy | | | Equity | | |
Model	Variable entered	B	SEB	β	B	SEB	β	B	SEB	β	B	SEB	β	B	SEB	β	B	SEB	β	B	SEB	β
1	TEs	9.35	.89	.93*																		
R²(ΔR²)			.86																			
2	TEs	9.38	.91	.93**	8.93	1.15	.89**	9.66	1.06	.96**	9.39	.97	.94**	9.26	1.23	.92**	9.40	.97	.93**	9.22	1.24	.92*
	CCF	1.84	3.67	.05	1.68	2.86	.07	-2.29	4.00	.54	-2.01	4.48	-.04	.54	5.19	.01	-.10	6.67	-.01	2.56	17.53	.02
R²(ΔR²)			.86 (.00)			.86 (.00)			.86 (.00)			.86 (.00)			.86 (.00)			.86 (.00)			.86 (.00)	
3	TEs	-31.49	10.13	-3.12**	-16.87	4.40	-1.67**	-30.19	9.79	-2.99**	63.39	13.91	6.29**	54.02	20.50	5.36*	63.20	24.70	6.27*	11.69	57.91	1.16
	CCF	-31.80	8.74	-.78	-21.98	4.31	-.88**	-30.25	7.43	-.80**	46.13	12.84	.99**	31.40	14.87	.74	49.22	23.81	.71	4.48	48.62	.03
	TEs*CCF	10.47	2.59	4.09**	7.36	1.24	3.24**	10.50	2.57	4.39**	-15.00	3.87	-5.78**	-11.09	5.07	-4.96*	-17.01	7.80	-5.63*	-.58	13.50	-.25
R²(ΔR²)			.93 (.07**)			.96 (.10**)			.93 (.07**)			.93 (.07**)			.89 (.03*)			.87 (.03*)			.86 (.00)	

Note. TEs = teacher expectations; CCF = classroom climate factor.

*P<.05; **P<.01.

It can be seen that six classroom climate factors (equity excepted) significantly moderated teacher expectation effects on student later achievement ($p < 0.05$). It seemed that the degree to which teacher expectations may predict student later achievement may be influenced by the magnitude or quality of the teacher–student relationship, innovation, task orientation, student cohesiveness, cooperation and autonomy in the classroom. However, it appeared that the effect of teacher expectations on student year-end achievement did not alter with respect to the extent to which the teacher treated different students equally.

The negative or positive values of the standard regression coefficients (β) of the interaction product reflected the directions of the moderation effects of classroom climate. It seemed that teacher expectation effects may be stronger in classrooms where positive teacher–student relationships, innovation and task orientation were more pronounced. Contrastingly, teacher expectation effects may be stronger in classrooms where there was poorer student cohesiveness, cooperation and autonomy.

Furthermore, the hierarchical linear regression was run for the three teacher expectation groups separately so as to examine whether and how the classroom climate may moderate teacher expectation effects respectively in the classrooms of Low, Medium and High expectation teachers (see Table 6.6). Because the factor equity had no significant effects on the relationship between teacher expectations and student end-of-year achievement, it was not included in the following analysis.

Table 6.6

Moderation Effects of the Six Classroom Climate Factors for Classrooms with Low, Medium and High Expectation Teachers

Teacher group	Variable	Regression coefficients of classroom climate factor (CCF)																
		T-s relationship			Innovation			Task orientation			Student cohesiveness			cooperation			Autonomy		
		B	SEB	β	B	SEB	β	B	SEB	β	B	SEB	β	B	SEB	β	B	SEB	β
Low TEs	TEs	-160.39	150.03	-15.77	-134.07	65.58	-13.18	-22.94	77.21	-2.26	153.75	43.60	15.11*	172.84	48.89	16.99*	222.87	64.07	21.91*
	CCF	-87.59	70.77	-4.99	-104.73	42.51	-6.30	-29.03	54.19	-2.10	108.54	28.24	5.43*	115.55	28.53	5.04*	185.29	52.74	9.18*
	TEs*CCF	40.80	37.48	16.06	44.87	20.98	16.20	9.09	23.49	3.94	-43.60	12.74	-14.75*	-46.03	13.40	-16.36*	-70.83	20.65	-24.79*
Model	R²(ΔR²)	.65 (.14)			.92(.13)			42 (.03)			.90 (.38*)			.95 (.20*)			.84 (.64*)		
Medium TEs	TEs	-50.73	5.39	-6.07*	-28.32	4.28	-3.39*	-145.87	12.50	-17.46**	234.22	29.69	28.04*	153.29	21.63	18.35*	79.59	61.06	9.53
	CCF	-50.81	5.04	-3.52*	-34.70	4.36	-3.04*	-122.89	9.94	-5.67**	209.88	25.90	8.70*	117.67	16.56	3.51*	89.73	64.90	3.05
	TEs*CCF	1.61	1.33	4.85**	10.20	1.21	2.70*	39.24	3.22	18.23**	-59.19	7.64	-33.95*	-34.59	5.04	-20.33*	-24.08	19.72	-10.44
Model	R²(ΔR²)	.99 (.36**)			.99 (.37*)			.99 (.36**)			.99 (.28*)			.99 (.34*)			.85 (.11)		
High TEs	TEs	-150.77	39.41	-9.06*	-133.23	38.58	-8.00*	-146.40	35.51	-8.79*	8.36	44.25	.50	53.90	118.64	3.24	28.80	105.40	1.73
	CCF	-160.99	45.48	-7.19*	-147.85	45.52	-7.42*	-147.74	40.57	-5.25*	-30.85	55.16	-.73*	8.02	130.30	.14	-15.61	149.71	-.26
	TEs*CCF	40.55	10.30	14.82*	36.81	10.25	13.84*	38.81	9.19	13.13*	-.83	11.91	-.17	-11.39	28.29	-2.71	-6.31	32.23	-1.25
Model	R²(ΔR²)	.98 (.10*)			.98 (.09*)			.99 (.08*)			.98 (.00)			.93 (.00)			.94 (.00)		

Note. TEs = teacher expectations; CCF = classroom climate factor.

*P<.05; **P<.01.

It can be seen from Table 6.6 that the moderation effects of the classroom climate factors were not pervasive for all classrooms, but were statistically significant only in the classrooms of particular expectation teacher group(s). To be specific, teacher–student relationship, innovation and task orientation positively moderated teacher expectation effects in the classrooms of Medium and High expectation teachers. Student cohesiveness and cooperation moderated teacher expectation effects negatively in the classrooms of Low and Medium expectation teachers. Autonomy moderated teacher expectation effects negatively only in the classrooms of Low expectation teachers.

Discussion

The seven factors represented components of the socioemotional and learning environment in the classroom, and it appeared that classroom climate factors (equity excepted) may strengthen or weaken teacher expectation effects on overall class achievement. In this section, the magnitude and direction of moderation effects of classroom climate across all classes will first be explored. In the second part, the varying moderation effects of classroom climate across different teacher expectation groups will be discussed.

Classroom climate as a moderator across all classes. The results suggested that the six classroom climate factors worked as moderators of normative teacher expectation effects. The quality of the classroom climate may result in all students in the same classroom perceiving teachers' normative expectations to a greater or lesser extent and accepting teachers' expectations to a greater or lesser extent, so that the overall class achievement may be more likely to confirm the teacher's expectations in some classrooms than in others.

Existing literature in the teacher expectancy field has explored a large number of individual student characteristics which may significantly increase or decrease the magnitude of teacher expectation effects (see Brophy, 1983, for a review) , but some important issues, notably related to contextual moderators, have still been left unexplored. Although some

research has indicated that some characteristics of the classroom environment may moderate teacher expectation effects, most have focused on the physical learning environment, such as new situations (Raudenbush, 1984), tracking (Eccles & Wigfield, 1985; Jussim, 1986), class or group size (Weinstein, 1976); and nature of the content being taught (Braun, 1976; West & Anderson, 1976). Study 4 in the current research has provided new evidence for the socioemotional environment as a moderator of teacher expectancy effects, an aspect that has been largely ignored in the literature. The results of this study have suggested that the socioemotional environment in the classroom may also increase or reduce students' susceptibility to teachers' expectation effects. Classroom climate is shared by all the students in the classroom (although it is acknowledged that students may vary in their perceptions of the class climate), and a particular classroom climate may increase or restrict the likelihood of the teacher's normative expectations having effects on the overall class outcomes, rather than on specific individual student(s).

In general, the findings across all classrooms showed that three classroom climate factors (teacher–student relationship, innovation, and task orientation) positively moderated normative teacher expectation effects. However, the three other factors (student cohesiveness, cooperation and autonomy) worked negatively. The factor equity did not moderate teacher expectation effects significantly.

Teacher–student relationship, innovation and task orientation. Looking at the whole sample, in the classrooms where the teacher built a better relationship with students, delivered more innovative instruction, and provided clearer and better organised goals for student learning, there seemed greater likelihood of normative teacher expectation effects. The possible reasons may be that in these classrooms, teacher expectations were more clearly communicated to the students, and the students were more likely to accept teachers' expectations and willingly behave in accordance with those expectations.

The quality of the classroom climate may be associated with the accuracy of student perceived teacher expectations. It can be anticipated that teacher expectations may be more pronounced when the teacher builds a friendlier and closer relationship with students. A positive teacher–student relationship represents frequent and direct interactions between the teacher and students thus increasing the salience of the teachers' expectations. Previous research in the teacher expectancy field has shown that students are keenly sensitive to teacher expectations even when the teacher attempts to conceal his or her expectations (Babad et al., 1989a, 1991; Babad & Taylor, 1992; Weinstein et al., 1982); hence it can be anticipated that teacher expectation cues may be more salient and transparent during more frequent interactions. The students probably could detect the teacher's expectations more easily and more accurately than students in classrooms where the teacher infrequently communicated and interacted closely with students. In addition, teacher expectations are also communicated when the teacher plans the instructional practice and sets learning goals for students. The objectives the teacher designs for teaching and learning convey what the teacher expects the class to achieve in the future (see Study 2). Students whose teachers set clear learning goals were more likely to sense the teacher's exact expectations because learning goals provided explicit information about what the teacher anticipated. However, the students whose teachers did not have clear instructional guidelines may have used other indirect channels for teacher expectation cues, for example, the teacher's nonverbal language, which may be implicit (Babad et al., 2003; Babad et al., 1991).

The other possible account for positive moderation effects of these classroom climate factors (teacher–student relationship, innovation and task orientation) was students' acceptance of teacher expectations. In almost all the mediation models of teacher expectation effects (Brophy & Good, 1970; Darley & Fazio, 1980; Rubie-Davies, 2008a), researchers have emphasised an indispensable step for the self-fulfilment of teacher expectations; that is,

students may or may not act in line with teacher expectations. It can be anticipated that students are more likely to act in line with perceived teacher expectations when they are more willing to accept teachers' expectations. Students' behaviours have been found to be positively correlated with student evaluations of the teacher, especially in tertiary education (Algozzine et al., 2004; Feldman, 1986; Kember & McNaught., 2007; Marsh & Roche, 1994; Wachtel, 1998). Students tend to hold more positive evaluations of teachers who provide individual rapport (Algozzine et al., 2004; Devlin & Samarawickrema, 2010; Feldman, 1986; Hativa, Barak, & Simhi, 2001; Marsh & Roche, 1994; Marsh & Roche, 1997), innovative teaching (Devlin & Samarawickrema, 2010; Kember & McNaught., 2007; Marsh & Roche, 1994), and well prepared and organised instruction (Devlin & Samarawickrema, 2010; Hativa et al., 2001; Kember & McNaught., 2007; Marsh & Roche, 1994; Young & Shaw, 1999). Hence in the classrooms with better teacher–student relationships, more innovative and better organised instruction, the students were more likely to accept and act according to what the teacher expected than in the classrooms where the students experienced less positive teacher–student relationships and received less innovative and poorly organised teaching.

Generally speaking, the extent of student exposure to and acceptance of teacher expectations may vary in line with the quality of the teacher–student relationship, innovation, and task orientation in the classrooms. Findings showed that an increase in these three classroom climate factors may have resulted in students' more accurate perception of and greater acceptance of teacher expectations, which may mean greater student susceptibility to teacher expectations.

Student cohesiveness, cooperation and autonomy. Apart from the three classroom climate factors which positively moderated the magnitude of teacher expectation effects at the class level, the other three classroom climate factors, Student cohesiveness, Cooperation, and Autonomy, appeared to moderate teacher expectation effects in a negative direction. The

data analysis across all classes indicated that teacher expectation effects were weaker in classrooms where students shared a closer relationship with peers, participated in more cooperative activities, and learnt with more autonomy. Peer effects and student individual behaviours may be the main reasons to decrease the magnitude of teacher expectation effects.

It can be anticipated that students with better peer relationships may be more dependent on their peers, because they obtained significant care and warmth from their classmates. Also, when working with each other, the students were supposed to discuss and solve problems collaboratively with the other group members (Johnson & Johnson, 1991). The students were more likely to build friendships and rely on each other when they cooperated and supported other students more frequently. The peer effects derived from friendship and cooperation among students may increase students' reliance on peers but hence reduce their dependence on the teacher. Consequently, in the classrooms where students shared a closer relationship with each other and enjoyed more cooperation, students were less likely to be influenced by the teacher, which led to less likelihood of teacher expectation effects.

Meanwhile, student individual behaviours and responsibility seemed to be another explanation for the negative moderation effects of these classroom climate factors. In working cooperatively, the students had to solve problems and acquire skills on their own to contribute to the group goals. Situations such as this reflect individual responsibility that each student may take for his or her own learning and group work (Johnson & Johnson, 1991). Similarly, the factor autonomy emphasised students' individual responsibility for the decisions concerning learning, including determining objectives, selecting method, monitoring the procedure, evaluating and reflecting outcomes (Holec, 1981); and in this way, students "establish a personal agenda" (Little, 1991, p. 431) for learning which affirms student individuality. In an autonomy-supportive classroom, the students personally initiate and direct their own efforts to acquire knowledge and skills rather than relying on teachers,

parents or other agents of instruction (Zimmerman, 1989). It can be concluded that in both cooperative and autonomous learning, students' awareness of their own responsibility may lead to self-oriented behaviours in learning and perhaps less reliance on teacher expectations.

An assumption may be that students are less reliant on teachers when they are actively interacting with peers and learning by themselves. Hence, it seems plausible that the higher quality and quantity of the three classroom climate factors—student cohesiveness, cooperation, and autonomy—may decrease students' susceptibility to teacher expectations, which may be why these classroom climate factors moderated teacher expectation effects in a negative direction.

Equity. As an exception, the results showed that the level of equity did not work as a moderator of normative teacher expectation effects for all classes. It seemed that the relationship between normative teacher expectations and the overall class achievement did not vary as a function of the variation of perceived equity in the classroom. Whether the teacher treats his or her students equally may be reflected in the teacher's differential or non-differential behaviours towards different students in the classroom. The teacher may be more friendly, helpful, and supportive to particular students than to others in the same classroom, according to what the CUCEI "equity" section assessed. Previous research in teacher expectancy has reported that students are highly sensitive to teachers' differing treatment of different students (Marshall & Weinstein, 1986; Weinstein, 1983, 1985; Weinstein et al., 1987), and teachers' differing treatment is usually perceived by students as clues related to teacher differing expectations for different students (Brattesani et al., 1984; Weinstein et al., 1982). The findings of related research have also shown that student perception of teacher differing treatment significantly moderates teacher expectation effects (Brattesani et al., 1984); more salient unequal treatment by teachers may generate stronger teacher expectation effects.

However, the current study explored whether and how the classroom climate moderates the relationships between the teacher's normative expectations for all the students in the class and the overall class achievement. Equity, which may convey the teacher's differing expectations for individual students in an identical group or class, seemed not to be related to the teacher's normative expectations for all their students. It did not function as a moderator for normative teacher expectation effects on whole class achievement, because it did not relate to students' susceptibility to teachers' similarly high or low expectations for all the students in classes.

Positive moderators versus negative moderators. It appeared that these classroom climate moderators could be grouped into two types. One type, comprising teacher–student relationship, innovation and task orientation, moderated teacher expectation effects positively, and these classroom climate factors all seemed to depict teachers' behaviours of interacting with and instructing students. The other type, comprising student cohesiveness, cooperation and autonomy, which moderated teacher expectation effects negatively, seemed to highlight student behaviours with peers or by themselves. Implications may be drawn that the former type of classroom factors suggested teacher effects while the latter emphasised student effects of peers and student individual characteristics. Because teacher expectation effects depict the teacher effects on students, the variation of the two types of classroom climate factors may be associated with either enhanced or restricted teacher effects or student effects, which can result in stronger or weaker teacher expectation effects on students. Greater teacher effects may be related to students' greater acceptance of teachers' expectations, and lead students' behaviours and outcomes to conforming to teacher expectations. On the other hand, greater student effects may be linked to more reliance on peers and themselves, and hence less dependence on teachers, which may, as a result let students' behaviours and outcomes be less readily influenced by teachers' expectations.

Classroom climate as a moderator across teacher expectation groups. When looking into how the classroom climate factors worked as moderators for the specific Low, Medium and High expectation teacher groups, it was found that the moderation effects of classroom climate were a function of teacher expectation groups, suggesting that in the classrooms with different teachers, the moderation effects of classroom climate factors may vary. Teacher expectation levels seemed also to act as a moderator. Basically, there was a trend that the moderation effects of the classroom climate factors emphasising teacher effects were significant only in the classrooms with high expectation teachers, while the moderation effects of the factors highlighting student effects were only significant in the classrooms with comparatively low expectation teachers. Since the moderation effects of all the classroom climate factors were found to be significant for all classes (see the previous section), the further question was why the moderation effects of some factors became insignificant in high expectation classrooms while the moderation effects of the other factors decreased in low expectation classrooms. The next sections will discuss the moderation effects of classroom climate in classrooms depending on teacher groups.

High expectation classrooms. In the High expectation classrooms where there were more positive teacher–student relationships, more innovative instruction, and better organised learning tasks, there seemed greater likelihood of teacher expectation effects. It is plausible that the students were more susceptible to teacher expectation effects in these classrooms, because more positive teacher–student relationships, innovative and well organised instruction may magnify the teacher's influence and increase students' acceptance of teacher expectations. However, student cohesiveness, cooperation and autonomy did not significantly moderate normative teacher expectation effects in the High expectation classrooms. This finding suggested that in the High expectation classrooms where students enjoyed closer friendships with peers, more cooperation and autonomy, teacher expectation

effects appeared not to be substantially reduced. One possible reason could be that in the classrooms with High expectation teachers, teacher effects were so pronounced that the variation of the classroom climate factors which emphasised student effects did not alter the relationship between teacher expectations and student outcomes. As reported by both teachers and students within the High expectation group in Study 3, the High expectation teachers provided their students with more care and support and delivered more innovative and better organised instruction, which may have led to the students' more willingly accepting teacher expectations and consequently having more profound teacher effects in the classrooms with High expectation teachers. Due to a pleasant relationship with the teacher and willing acceptance of the teacher, students in the High expectation classrooms were more likely to be influenced by their teachers, and less reliant on their peers and themselves. Hence the classroom climate factors which may enhance student effects failed to reduce teacher expectation effects substantially in the High expectation classrooms, as they were buffered by the predominant teacher effects.

Medium expectation classrooms. In the Medium expectation classrooms with more positive teacher–student relationships, more innovative instruction and better organised learning tasks, the relation between normative teacher expectations and student achievement seemed to be stronger, because the students were more accepting of the teachers' expectations in these classrooms. Meanwhile, in the Medium expectation classrooms where students had better peer relationships and participated in more cooperative activities, teacher expectation effects appeared to be less salient, because of students' greater reliance on peers and themselves, and hence they were less influenced by the teacher in those classrooms. The autonomy factor, however, seemed to be an exception which did not moderate teacher expectation effects significantly for the classrooms with Medium expectation teachers. That is, an increase in an autonomy-supportive climate may not weaken teacher expectation effects

to a significant extent in the Medium expectation classrooms. This finding suggests that the students' self-reliance did not offset the teachers' influence. Teacher expectation effects did not decrease in the Medium expectation classrooms with an autonomy-supportive climate, because the teacher exerted greater effects on students' outcomes than students themselves did. In Study 3, teachers and students within the Medium expectation group also reported a positive teacher–student relationship, and such a relationship possibly resulted in the salience of teacher effects in these classrooms which may have counteracted students' self-reliance.

Low expectation classrooms. In the Low expectation classrooms where students enjoyed better relationships with each other, and were provided more cooperation and autonomy, student achievement seemed to be less associated with normative teacher expectations. It can be anticipated that the students were less susceptible to teacher expectancy effects because they were more reliant on other students or more self-reliant in these classrooms. Nevertheless, it seemed that classroom climate factors of teacher–student relationship, innovation and orientation of instructional activities did not substantially moderate teacher expectation effects in the Low expectation classrooms. That is, an increase of teacher effects did not strengthen teacher expectation effects substantially in the Low expectation classrooms. This finding suggests that in the Low expectation classrooms, student effects were more predominant and buffered teacher effects. The pronounced student effects in these classrooms could have been because the students were more closely affiliated to peers, perhaps as a result of a poor relationship with their teachers (see Study 3). As the investigation of teachers and students within the Low expectation group showed, students experienced some tension and anxiety when interacting with their teachers personally, and they tended to enjoy care, support, and meaningful relationships with other students (see Study 3). In addition, in the Low expectation classrooms, students were allowed to form small groups freely; this provided them more chance to develop friendships with other

students in the classes. As a result, the students' greater reliance on peers became more substantial in the Low expectation classrooms so that teacher effects were offset, and hence the classroom climate factors which could have enhanced teacher effects failed to strengthen teacher expectation effects in these classes.

Summary

Study 4 explored classroom climate factors as moderators of the relation of teacher expectations to whole class achievement. Teachers can hold normative expectations for all students in their classes, and the effects of their normative expectations on the overall class outcomes have been previously identified in related literature (Rubie-Davies, 2006, 2008a). The relationship between teachers' expectations and overall student achievement may differ depending on classroom climate. Classroom climate, as a contextual factor, may influence students' susceptibility to teacher expectations (Brophy, 1983; Jussim et al., 1998; Kuklinski & Weinstein, 2001; Smith et al., 1998). Hence, Study 4 examined whether the potential for teacher expectation effects were greater or not in classrooms with a particular climate. Seven factors of classroom climate were investigated, and the results showed that most factors of classroom climate did moderate teacher expectation effects, but their moderation effects were in different directions, and they did not function in the same way for all teachers with differing levels of teacher expectations.

The investigation across all classes indicated that teacher expectations may be more influential on student outcomes in classrooms where the teacher created a friendlier personal relationship with students and the teacher delivered more innovative and better organised instruction. However, it seemed that students may be less vulnerable to teacher expectation effects in classrooms where students shared a closer peer relationship, participated in cooperation more frequently and more actively, and learned with more autonomy. The positive classroom climate moderators functioned to magnify teacher effects including

teacher expectation effects because they may increase the extent to which teacher expectations were accessible to and influential on students. The negative classroom climate moderators seemed to decrease the magnitude of teacher expectation effects, because they highlighted student effects such as peer effects and student individual variables.

When looking into how those classroom climate factors worked as moderators respectively for the Low, Medium and High expectation teacher groups, it appeared that the positive moderation effects of teacher–student relationship, innovation and task orientation were only significant for classrooms of High and Medium expectation teachers. Student cohesiveness and cooperation negatively moderated teacher expectation effects only in classrooms of Low and Medium expectation teachers. Autonomy functioned as a negative moderator in classrooms of Low expectation teachers exclusively. It seemed that teacher-oriented classroom climate moderators were significant only for teachers with comparatively higher expectations, while student-led factors were relevant for teachers with comparatively lower expectations. It has been argued that, teacher effects played a leading role in the classrooms of high expectation teachers because these teachers create a better personal relationship with students, while student factors were more powerful in the classrooms with low expectation teachers because students failed to form a close relationship with their teachers and in turn developed a stronger relationship with their peers.

Chapter 7 Discussion

The aim of the current research was to examine the relationships between teachers' normative expectations and the outcomes of their first-year undergraduate students who were learning English as a foreign language at universities in China. The major contributions of the current research have been the focus on normative teacher expectations for all students rather than teacher expectations for individual students. In addition, the research proposed possible mechanisms for normative teacher expectation effects, and explored teacher expectation effects in new contexts, both foreign language classrooms and tertiary education, both of which have been little explored in the expectancy field. The participants comprised a large sample of teachers and students in foreign language classrooms in higher education. Teachers were classified in accordance with their normatively high or low expectations for all their students at the beginning of the school year when the students entered universities for the first time. Then the relationships between teachers' normative expectations for the future performance of all their students and the students' academic outcomes across a school year were examined. Differences in pedagogical beliefs, instructional practices and socioemotional climate in the classrooms with High, Medium and Low expectation teachers were explored in order to account for differences in the later achievement between their students. It was predicted that those differences may indicate mechanisms for mediating the effects of teachers' normative expectations on their students' learning outcomes. Furthermore, the moderator role of classroom climate in normative teacher expectation effects was investigated. This aspect of the thesis explored the particular instructional and socioemotional climates that may significantly intensify or weaken the relations of teachers' normative expectations with overall student achievement in the College English classrooms at the end of the school year.

Research Hypotheses

The first hypothesis was that teachers may have normative expectations for all their students, and teachers' different normative expectations, high or low, may result in different academic outcomes for all students. The hypothesis was confirmed by the results. Study 1 in the research examined each teacher's expectations for multiple classes, and compared expectations between teachers. There was evidence that teachers' expectations were pervasive for all their students in multiple classes. In addition, statistically significant differences were found between teachers despite similar student characteristics and therefore that teacher expectations appeared to be a teacher-centred variable, rather than student-centred. Three teacher groups were identified: High expectation teachers held normatively high expectations for all their students, Medium expectation teachers held medium-level expectations for all their students, while Low expectation teachers held normatively low expectations. Furthermore, normative teacher expectations at the beginning of the school year were related to overall student achievement at the end of the school year. Students whose teachers had higher normative expectations at the beginning of the year tended to score more highly in the end-of-year standardised test than students with teachers who held lower expectations for their classes. Normative teacher expectations were related to the overall student learning gains.

In Study 2, the hypothesis was that the teachers within different expectation groups would vary in their beliefs and behaviours which may suggest a mediating process of normative teacher expectation effects. The study examined how normative teacher expectations were formed, transmitted, perceived and responded to. The results seemed to support the hypothesis and showed that teachers with normatively high, medium, and low expectations differed in their teacher beliefs, teaching practice, and interactions with their students. It seemed that teachers with differing normative expectations provided different

instruction and learning opportunities for their students, which appeared to result in different learning experiences and outcomes for their students. The evidence of teacher beliefs and teacher behaviours indicated how normative teacher expectation effects were mediated in an explicit manner.

Study 3 focused on the mediating role of classroom climate in normative teacher expectation effects, which was the other major mediator tested in this thesis. Harris and Rosenthal (1985) identified the input (instruction) and affect (class climate) associated with teacher expectations as having most effects on student learning. Study 3 investigated multiple factors of the social and instructional environment in classrooms with varying normative teacher expectations. The hypothesis for Study 3 was that the classroom climate would vary in line with teachers' normative expectations. A comprehensive exploration of the personal relationships among all the participants in the classroom and the ecology of the learning environment was conducted and provided evidence for the hypothesis. Six factors of classroom climate differed in relation to normative teacher expectations, including the teacher–student personal relationship, innovation of instruction, student peer relations, task orientation, cooperation among students, and learning autonomy for students. The varying classroom climate appeared to provide different learning opportunities and experience for all the students in the classrooms, and students were more or less motivated to participate in the learning activities created by the teacher.

The final intention of the current research was to explore the moderating role of the classroom climate. The major hypothesis was that the classroom climate would strengthen or weaken normative teacher expectation effects. The results of Study 4 confirmed that classroom climate quality moderated the magnitude of normative teacher expectation effects. With certain classroom climates in the current study, teacher expectation cues were more salient, students were more compliant, and consequently more powerful teacher expectation

effects appeared to occur. Contrastingly, other classroom climates led to less salient expectancy processes, less student acceptance of the teacher's influence and accordingly a smaller magnitude of expectancy effects. Moreover, analyses also showed that the moderation effects of the classroom climate varied depending on normative teacher expectations, suggesting that the moderating effects of a particular classroom climate dimension may work for specific teachers only.

Normative Teacher Expectation Effects

The results of the current research have shown that teachers have normative expectations for all their students and that teachers' normative expectations are related to the overall student achievement across a school year. Differences in the expectation level between teachers were found, which was consistent with previous literature (e.g., Rubie-Davies, 2008a). With students who had been similarly distributed in terms of demographic characteristics and prior achievement, some teachers had expectations either substantially above or below student achievement at the beginning of the year. Further analysis of each teacher's expectations for multiple classes showed that teachers' expectations did not vary between classes. It seemed that teachers' expectations were pervasive for different classes. If a teacher held high expectations for one class, he or she appeared to hold similarly high expectations for other classes, and the results were the same for teachers who held low expectations. Hence, teacher groups with varying expectation levels could be identified It appeared that teachers' expectations were less likely to be dependent on student information, which suggests that teacher expectations are a teacher-centred variable and not necessarily dependent on student characteristics.

More importantly, it seemed that normative teacher expectations were strongly related to overall student achievement. Regardless of students' similar previous performance at the beginning of the school year, students in the classes with higher expectation teachers made

marked academic gains by the end of the school year when compared with their counterparts in the classes of lower expectation teachers. The findings suggest that teachers' normatively high or low expectations may result in different academic outcomes for their students; students academic gains appear to be enhanced or restricted depending on the teacher type with whom they happen to be placed. Students' differential learning outcomes indicate a considerable effect at the teacher level, rather than the student level.

Recent research in the teacher expectancy field has shifted the focus from the student to the teacher. The work of Babad (e.g., Babad et al., 1982a), Weinstein (e.g., Weinstein et al., 1982) and Rubie-Davies (e.g., Rubie-Davies, 2008a) has investigated the moderating effects of teacher variables, and argued that teacher expectation effects may vary depending on teacher types. Their work has proposed that teacher expectation effects are more likely to be teacher effects rather than student effects, and Rubie-Davies' work (Rubie-Davies, 2006, 2007, 2008a) in particular has documented teacher expectations for and their effects on the overall class. However, one possible objection to the work of these academics mentioned above may be that their studies have examined the "one teacher within one class" situation, and therefore it could be possible that teachers' particular expectations resulted from some specific student characteristics not controlled for in the analyses. The current research has added more convincing evidence to the argument by examining teacher expectations for students of multiple classes, and comparing student outcomes of different classes with the same teachers. The teacher's normative expectations for different classes and different gains of students with High, Medium and Low expectation teachers appear to support the claim that the teacher may play a more decisive role in teacher expectation effects rather than the student. It appears that the formation and effect of teacher expectations is more likely a function of teacher characteristics than student individual differences. Investigation into the differences between High, Medium and Low expectation teachers did reveal that teachers

with different expectations developed their expectations on different bases. The teachers with lower expectations were likely to develop expectations based on student variables, such as prior achievement and actual performance; while the teachers with higher expectations seemed to include more teacher characteristics apart from student information; for example teachers' past learning experience and work experience. Further scrutiny of the differences between these teacher types will be discussed in the next section.

Moreover, the findings add weight to the argument about the direction of teacher expectation effects which has been debated for a long time. Some teachers had expectations either substantially above or below other teachers' expectations at the beginning of the school year. It is interesting that the High expectation and Low expectation teachers were more likely to cling to their initial exceptionally high or low expectations, while Medium expectation teachers tended to modify their expectations in accordance with the newest information about their students. The different sustainability of teacher expectations in the current research confirms what Brophy and Good (1974) have suggested, that some, but not all, teachers would adjust their expectations in line with recent information about student performance. Furthermore, the students with High and Low expectation teachers showed a considerable achievement gap after one year despite having had the same achievement at the beginning of the year. Students with High expectation teachers made substantial gains across the year; their teachers had Galatea effects (Babad et al., 1982a) on their learning. The students with Low expectation teachers made limited achievement gains by the end of the school year; arguably their teachers had Golem effects (Babad et al., 1982a) on their learning. It appeared that the teacher, especially a teacher with exceptionally high or low expectations, played a more influential role in contributing to the self-fulfilment of his or her expectations than the students did. It seemed that the direction of teacher expectation effects were more from the teacher to the student than the opposite.

The current research provides evidence in support of previous studies on more generalised teacher expectancies, such as teacher expectation effects at the class level (Rubie-Davies, 2008a). The current research took a further step by reporting normative teacher expectation effects on multiple classes. This has not been previously addressed in the literature. The current and previous research (e.g., Babad et al., 1982b; Rubie-Davies, 2008a; Weinstein, 2002) which has emphasised the teacher factors in expectancy effects have valuable implications for educational practice and teacher professional development, which will be discussed in a later section.

Differing Teacher Beliefs, Instructional Practices and Classroom Climates

Teachers with different normative expectations were found to differ in their beliefs about teaching and learning, their instructional practices and the climate that they created within their classrooms. It seemed that those variations in beliefs and behaviours between teachers with high or low expectations may have communicated their teacher expectations and suggested mechanisms for expectancy effects. Generally, the current research investigated the instructional and socioemotional differences between the three teacher groups and these will be discussed in the following paragraphs.

In terms of pedagogical beliefs and self-efficacy, the teacher self-report data showed that Low expectation teachers believed in their role as the instructor and supervisor, deciding what and how the students should learn and spending time in classroom management; the teachers with medium and high expectations viewed themselves as a guide for student learning, and they emphasised learner autonomy in instruction. Only the High expectation teachers believed in the effect of the classroom climate on student learning, and regarded it as their responsibility to create a favourable climate within the classrooms. These findings of variations in teacher beliefs have confirmed Rubie-Davies' studies (2007, 2008a, 2008b;

2004) with elementary school teachers such that low expectation teachers are likely to take a directive role in instruction but high expectation teachers tend to take a facilitative role. Furthermore, the teachers' teaching efficacy appeared to increase with a rise in teacher expectations, suggesting that low expectation teachers may have had lower teaching efficacy while high expectation teachers may have had greater efficacy.

According to the students' responses, the instructional practices and environment in the classrooms also varied in line with teachers' normative expectations. The teachers with normatively lower expectation seemed to provide easier learning materials, gave overstated feedback, and set readily accomplished goals for their students; the teachers with normatively higher expectation appeared to choose difficult learning materials, gave business-like feedback, and set challenging goals for student learning. Consistent with findings of previous research (Rubie-Davies, 2008a, 2008b), low expectation teachers were perceived by their students to provide less clear and less organised instruction; however, high expectation teachers appeared to set carefully designed tasks for instruction. More importantly, the current research found that high expectation teachers, rather than low expectation teacher, tended to have integral plans for the whole course which were made up of objectives for student learning throughout the course, and this probably created a task mastery oriented classroom for student learning. High expectation teachers appeared to design more frequent cooperative work for their students while teachers with low expectations seemed to include fewer cooperative activities in their instructional practice. Consequently, students with high expectation teachers appeared to be engaged in and benefitted from cooperative learning more than the students with low expectation teachers. High expectation teachers may have allowed their students more autonomy for learning and let the students make more decisions about learning than low expectation teachers, which has also been documented in existing literature (Rubie-Davies, 2008a, 2008b).

Differences in the socioemotional environment were found between the classrooms with High, Medium and Low expectation teachers. It seemed that Low expectation teachers had a less caring personal relationship with their students while High and Medium expectation teachers shared a more pleasant rapport with the students. In addition, High expectation teachers were perceived by the students as more helpful and supportive in their learning experiences than low expectation teachers. In the classrooms of Low expectation teachers, students felt some tension and anxiety in personal interactions with their teacher, and students tended to build a friendlier and warmer relationship with each other than in the classrooms of High and Medium expectation teachers. Meanwhile, Low expectation teachers usually let students form small groups based on their friendship with each other which helped to foster a closer relationship among students, although these teachers did not design frequent cooperative activities in their instruction. However, High expectation teachers were more likely to randomly assign students into groups so that their students tended to focus on group tasks rather than personal attachment in their cooperative learning. It seemed that the students with low expectation teachers were closely attached to one another rather than their teacher, while the students with high expectation teachers enjoyed closer relationships with their teachers. Previous research (Rubie-Davies, 2006) has reported similar results that students with low expectation teachers are more closely bonded to peers, probably as a result of their poor relationship with teachers.

Further investigation into the moderation effects of classroom climate found that there seemed to be a distinction between "teacher-oriented" and "student-led" factors. Some factors of the classroom climate, such as the teacher–student relationship, innovation and task orientation, appeared to emphasise the teacher's effects on students, while other factors, such as student cohesiveness, cooperation among students, and autonomy, highlighted the effects of peers and the students themselves. These two types of factors interacted with each other

and led to different classroom climates depending on teachers' normative expectations. The results of the current research suggest that teacher effects played a leading role in the classrooms of high expectation teachers because teachers created a better personal relationship with students, while students may be more susceptible to peers and more self-reliant in the classrooms of low expectation teachers, because they seemed to become more closely related to peers perhaps as a result of a poor relationship with their teachers. It can be anticipated that the quality of the relationships may matter as much as the quality of the instruction, and students' learning experiences may vary across the teacher expectation groups. Students with high expectation teachers are likely to willingly participate in and benefit from learning opportunities provided to them more than students with low expectation teachers. Variations in participation in learning also may contribute to the achievement disparity among students whose teachers hold different expectations.

The differences in instructional practice and classroom climate between high and low expectation teachers elaborated the conceptions of "input" and "climate"— the two main mediators of teacher expectancy effects proposed by Rosenthal (Harris & Rosenthal, 1985; Rosenthal, 1991). Such differences in teachers' beliefs and behaviours may suggest the mechanisms for normative teacher expectation effects. Teachers with differing normative expectations for all students seem to deliver instruction in different ways and create different classroom climates, which may shape the learning opportunities and experiences for all their students, and consequently lead to different achievement levels of their students. High expectation teachers appear to provide their students with more challenging and exciting opportunities to learn, and students with high expectation teachers enjoy more positive relationships with their teachers. Hence students with high expectation teachers are more likely to accept teachers' expectations, actively participate in those challenging and exciting learning opportunities provided by teachers, and consequently they achieve at a higher level

by the end of the school year. On the other hand, students with low expectation teachers seem to be given restricted and lower level learning opportunities, and have less positive relationships with their teachers. These students appear to be more reliant on their peers and less accepting of teacher' expectations. However, a lack of learning opportunities may lead them to confirming what their teachers initially expected; that is to say, achieving at lower levels than students with high expectation teachers, because students were reliant on their teachers for their opportunity to learn, specially learning a foreign language in China (see the next section). Such mechanisms reflect the teacher's role in generating normative expectancy effects for all their students. Teachers play a key part in developing normative expectations for all their students, and enable such expectations to be self-fulfilled by moulding the instructional and socioemotional environment for their students.

Teacher Expectation Effects in the New Context

The current research chose to explore teacher expectations effects in the curriculum of foreign language learning in a tertiary setting. Both the specific curriculum area and tertiary-level institutions have been little studied in the expectancy field. Teacher expectation effects were identified for the first-year undergraduates who were learning English as a foreign language; the contextual factors of tertiary education and foreign language curriculum both may contribute to more salient teacher expectation effects, as will be discussed below.

Existing literature (Eden & Shani, 1982; Jussim, 1986; Jussim et al., 1998; Raudenbush, 1984; Swann & Ely, 1984; Weinstein & McKown, 1998) has found that people, including students and adults, are more susceptible to expectancy effects when they are transferred from familiar situations to new ones, such as entering a new school level. The findings of the current research have added new evidence to this argument by investigating first-year

students in higher education who may have less clear and confident self-perceptions because they are in a new and different instructional environment.

The current research proposed that teachers' normative expectations had effects for all their students, as opposed to the expectancy effects for individual students more commonly studied (e.g., Babad, 1995; de Boer et al., 2010; Rosenthal & Jacobson, 1968). The features of tertiary education may be another reason for normative teacher expectation effects identified by the current research. Teachers usually deliver instructions to the class as a whole in higher education settings, rather than having frequent dyadic interaction with particular students. Based on their expectations for all the students, and other pedagogical beliefs, teachers set goals for student learning, design instructional activities, provide learning opportunities, and shape the classroom climate for all their students; consequently the overall student achievement tends to confirm teachers' initial expectations, which finally leads to the self-fulfilment of teachers' initial expectations.

However, the foreign language curriculum also seems to be a contributing factor to teacher expectation effects identified in the current research. The instructional practices associated with the foreign language curriculum, which is mainly made up of dialogue, conversation or discussion, indicate that there are more frequent and direct interactions between the teacher and students than in other curriculum areas in tertiary settings where lecturing and listening are more usual instructional arrangements. Teachers' expectations may be more pronounced because of frequent and direct interactions with their students in this setting, and result in more pronounced effects on student learning.

A further aspect of the current study worth mentioning is cultural difference. The current research was conducted in China where there has been little empirically studied in the teacher expectancy effects field. The Confucius ethics which have been overwhelming in

China over thousands of years advocate the worship of teachers in people's whole life (Waley, 2012) . It can be reasonably assumed that students are prone to behaving in accordance with what their teachers believe and expect because of this tradition, which may ultimately lead to more salient teacher expectancy effects in the Chinese context. In addition, the current research focused on the specific curriculum of foreign language rather than on other areas. There is comparatively little chance for students to learn a foreign language from sources other than school teachers in China, because China is located far from English speaking areas and has a different political ideology from the western world. Therefore it is probable that students are more dependent on teachers and schools for learning opportunities when they are learning a foreign language. Students' learning opportunities and experiences may be largely shaped by what the teacher provides and creates, which consequently may intensify the relationship between teacher expectations and student academic gains.

The current research combined the contextual factors of a new situation and a foreign language curriculum. Participants in the current research were in their late adolescence, a group who have been believed to be less dependent on teacher expectations (Kuklinski & Weinstein, 2001; Rosenthal & Jacobson, 1968; Weinstein et al., 1987; West & Anderson, 1976); however, the current results have indicated that the contextual factors may buffer the student age moderation effects, and increase the likelihood of teacher expectancy effects. The findings in the current research suggest that contextual factors play an important role in teacher expectation effects, and more extensive explorations into specific contexts are needed.

A Model for Normative Teacher Expectation Effects

Previous research has proposed various models for the self-fulfilling mechanism of teacher expectancy (e.g., Brophy & Good, 1970; Cooper & Good, 1983; Rosenthal, 1974; Rubie-Davies, 2008a), and only Rubie-Davies' work has focused on generalised teacher

expectation effects, at the class-level, in particular. The current research explored normative teacher expectations for all students. The findings suggest a model which addresses how teachers' normative expectations are developed and communicated, and ultimately predict student learning outcomes at a more generalised level.
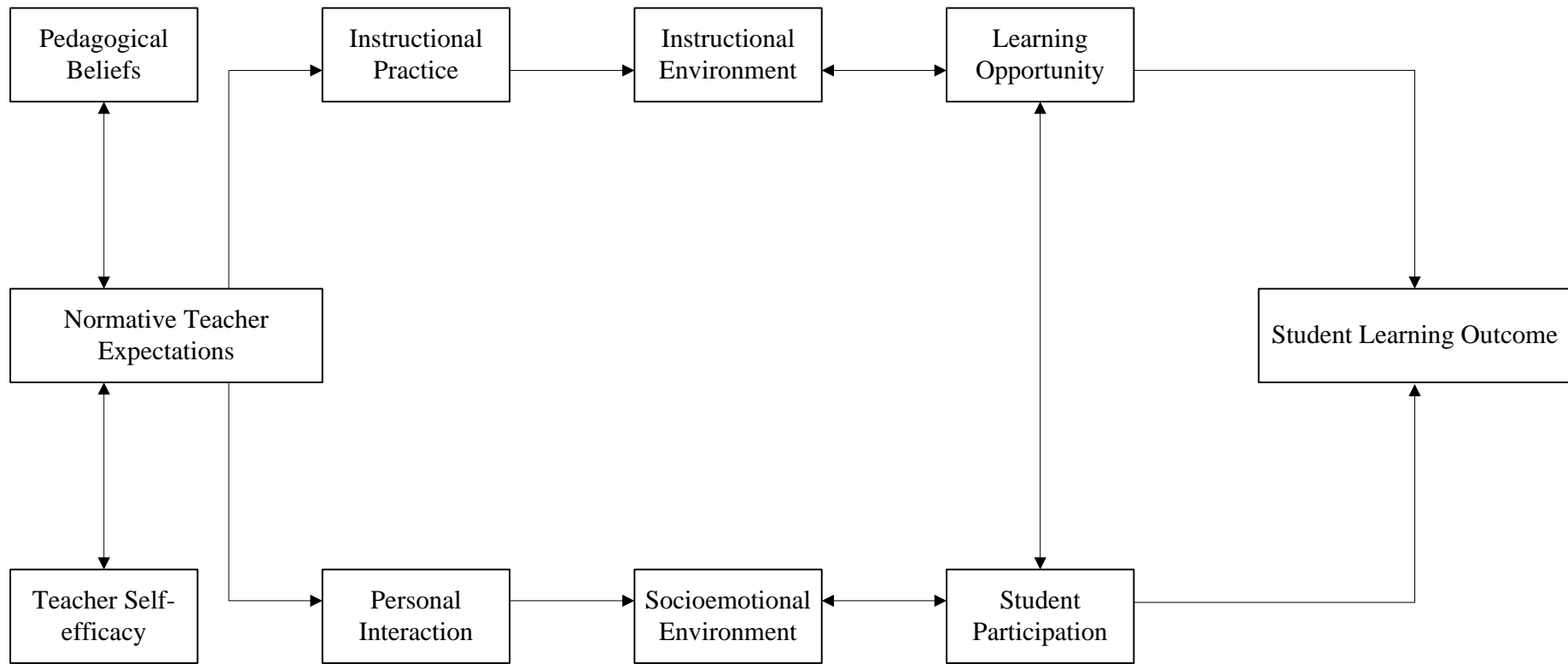
Figure 7.1 The mechanism of normative teacher expectation effects.

Teachers' expectations for all students, as argued in previous chapters, are teacher-centred characteristics. Normative teacher expectations are related to beliefs about teaching and learning, and beliefs in the teachers' ability to enhance student learning. The self-report data have shown that teachers with differing expectations for their students seemingly hold different pedagogical beliefs, and also have portrayed varying teachers' self-efficacy in accordance with their expectations. It seems that the three factors may affect each other reciprocally. Teachers' beliefs about the roles of teachers and students in education and teachers' beliefs in their ability to make a difference for student outcomes may shape their expectations for student future performance and achievement. Meanwhile, teachers' expectations for all their students may influence their beliefs about how instruction should be delivered and what kind of socioemotional climate should be created. Double-headed arrows link the three factors in the model, indicating the interrelationship among them, and demonstrate the formation of normative teacher expectations.

Given the evidence found by the current research, teachers' normative expectations would predict their instructional practices and personal interaction with their students. Teachers with different expectations may vary in ways that they design teaching activities, deliver instruction and interact personally with students. Teachers' behaviours may lead to a particular instructional and socioemotional environment for student learning and living in the classrooms. Students with high expectation teachers may find themselves in a classroom with innovative materials, clear and challenging goals, beneficial cooperative activities, supported autonomy and friendly relationships with the teacher. However, students with low expectation teachers may be confronted with repetitive teaching materials, vague goals, poor autonomy and less positive

relationships with teachers. The links indicating differences depending on teachers'
normative expectations are shown in the model by the single-headed arrow.

   It can be anticipated that there is a link between the instructional environment and
the learning opportunities for students. It is possible that students are provided different
learning opportunities in different instructional environments. Students enjoy more and
better learning opportunities in the classrooms where students are given more
innovative materials, more challenging tasks and more autonomy to develop their
abilities and interests. On the other hand, students' learning opportunities can be
restricted if they happen to be placed in an instructional environment which is
composed of less novel learning materials, less challenging tasks and limited autonomy.
Meanwhile, the learning opportunities provided for students may keep modifying the
instructional environment in the classrooms. In addition, the socioemotional
environment seems to predict student willingness to participate in learning. Better
teacher–student relationships may contribute to student positive participation in learning
and hence students benefit from the learning opportunities provided for them, whereas
students may be less willing to participate when there are poor personal relationships
with the teacher and their academic gains may be restricted. Whether students actively
participate in learning or not may further influence the socioemotional relationship in
the classrooms. It seems that the teacher build the instructional and socioemotional
environment by delivering instructions to and interacting personally with all the
students, which results in the learning opportunities for and participation of the students.
The interactions between these factors are illustrated by double-headed arrows which
suggest major differences in student learning experiences depending on teachers'
expectations.

Moreover, there seems to be an interrelationship between learning opportunities and student participation. Students may decide or not to participate in the learning opportunities that are provided; and the learning opportunities provided for the students may enhance or limit student participation in instruction. The amount and value of the learning opportunities and the degree of student participation in such learning opportunities, may ultimately lead to student learning outcomes. Teachers with high expectations are more likely to create better instructional and socioemotional environments in their classrooms, provide more and better opportunities to learn, encourage their students to participate in learning more actively, and consequently enhance their student achievement substantially. Teachers with low expectations are prone to delivering instructions poorly, creating less positive personal relationships with their students, providing less learning opportunities, discouraging student involvement in teaching and learning, and finally leading to limited student academic gains.

Implications for Educational Practice

The current research identified teachers with differing normative expectations for all their students by investigating a fairly large sample of teachers and students. Teachers' normative expectations for all their students in multiple classes provide more convincing evidence for the claim that teacher expectations are teacher-centred characteristics, and teachers with differing normative expectations may vary in delivering instruction to and interacting with students, which may ultimately result in differing later student achievement. The first implication for educational practice is the identification of teachers with different expectations for all their students. It seems that such differences are located in teachers; some teachers have exceptionally high expectations while some teachers have low expectations when facing similar students.

Moreover, teachers' expectations seem to be pervasive for all the students, and teacher beliefs and behaviours also vary depending on their expectations. This finding indicates that the teacher plays a more important role in generating teacher expectation effects than students. To prevent negative teacher expectation effects and to encourage positive teacher expectation effects, it appears to be more plausible to focus on the teacher instead of on the students.

Professional development programmes for pre-service and in-service teachers could be planned to enhance teachers' expectations and modify their behaviours in instructing and interacting with their students. The current research has found that normative teacher expectations are positively related to student academic outcomes, which suggests that higher teacher expectations contribute to higher student achievement. It seems probable that an increase in teachers' expectations may be accompanied by improved student outcomes. However, caution should be taken because normative teacher expectations are not an isolated variable but interrelated with teacher beliefs and self-efficacy. To effectively enhance teachers' expectations for all their students, professional development programmes should be carefully designed to integrate the concerns for teacher expectations, teacher beliefs and teacher self-efficacy as well. In addition, the current research has explored teacher behaviours depending on normative teacher expectations which are associated with the student achievement gap. It has been found that teachers with high expectations differ in the ways they deliver instruction and interact with students from teachers with low expectations. The findings of the current research may provide some guidance for an intervention project to promote positive teacher expectation effects. Teachers may modify their beliefs and behaviours to build a more positive instructional and socioemotional environment for

student learning, and students may be given more and better opportunities to learn and encouraged to more actively participate in classroom learning, which may lead to substantial academic gains by all students.

The current research has identified the influence of contextual factors on the self-fulfilment of teacher expectancies. It seems that teacher expectation effects function for the foreign language curriculum and for students in higher education, specifically first-year undergraduates. The particular curriculum area of foreign language has not been empirically studied in the expectancy field; however, the findings of the current research have provided evidence to link teacher expectations to student academic achievement in learning English as a foreign language. That may have some implications for teaching and learning foreign languages. Special attention should be paid to teacher expectations, teacher beliefs, instructional practice and socioemotional climate in foreign language classrooms so as to improve foreign language learning of students. What is also worth noting is the new situation that first-year undergraduates may face in tertiary settings. First-year students may be more susceptible to teacher expectations because they are unfamiliar with the instructional and socioemotional environment of university or college. Understanding of the new context factor could be integrated into tertiary educational practice. By creating positive teacher expectation effects, first-year undergraduates may achieve at higher levels and adjust more positively to tertiary institutions.

Limitations and Future Directions

The current research has concluded that some teachers have much higher expectations for all their students than other teachers, and teacher normative expectations are a teacher-centred variable. Further investigation into the distinction of

the teacher types is needed. Because of the limited sample size of teacher participants ($n = 50$) and the research design, the current research did not identify the characteristics of teachers who held normatively high or low expectations. Some demographic characteristics of teachers may be related to their expectancies, such as age, gender, educational and professional experience, and these could be identified in future studies. In addition, the current research found that teacher expectations may be linked to teacher pedagogical beliefs and self-efficacy, but no definite conclusions can be made, because the findings were derived from teachers' self-report in a qualitative study. Future empirical work could further explore teacher moderators of their normative expectations for all their students. The identification of the personal characteristics of teachers who hold normatively high or low expectations may help to distinguish the teacher types and to enable the implementation of intervention programmes for teachers' professional development which hence will lead to students' higher academic achievement.

The current research has focused on teacher expectation effects in previously unexplored contexts: foreign language curriculum in tertiary education. Teacher expectation effects were found to exist in foreign language classrooms at university, which indicates that contextual factors may play a role in expectancy effects. Since the current research has integrated the curriculum and school-level contexts, it cannot be concluded that the effects of normative teacher expectations on student outcomes can take place in either the foreign language curriculum or the tertiary settings solely. Future research could focus more particularly on a specific context and identify the contextual moderators by comparing these with their counterparts. For example, normative teacher expectation effects could be explored in different curriculum areas at

the same school level, or in the same curriculum but at different school levels. The

results may provide more convincing evidence for whether or not the curriculum or the

school level moderate teacher expectation effects (or whether both do) and generate

implications for educational practice in a certain subject or a schooling system.

Conclusion

Teacher expectation effects are a function of teacher characteristics. It seems that

the teacher defines what expectations should be formed and how their effects should be

facilitated for student learning. Individual differences in teachers lead to different

expectation levels, different teacher behaviours, different instructional and

socioemotional environment in the classrooms, and consequently different student

learning and social outcomes.

"It is the differences in the teachers that make the difference in student learning "

(Hattie, 2009, p.236). Together with previous research (e.g., Babad, 2009; Rubie-

Davies, 2008a; Weinstein, 2002), this thesis has shown the significance of the teacher in

expectancy effects for student learning experience and outcomes. To enhance student

achievement and to achieve educational equality, there is a need for research to explore

closely teacher variables for promoting positive expectancy effects and eliminating

negative expectation effects.

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Appendix A-1

Participant Information Sheet

(Head of Department/School)

Project title: Teacher Expectation Effects in Teaching and Learning English as a Foreign Language

Name of Researcher: Zheng Li

Researcher Introduction

My name is Zheng Li. I am enrolled in a PhD degree in the Faculty of Education at the University of Auckland. I am conducting a research project as part of the requirement for the PhD thesis. My project plans to investigate teacher expectation effects in the specific curriculum of foreign language teaching and learning.

Project Description and Invitation

With regard to the domain of foreign language instruction in which teacher-student interaction plays an important role, the current research attempts to conduct an intensive study of the potential impact of teacher expectations within foreign language classrooms. The research aims to identify teacher expectation effects for undergraduate students in foreign language classrooms, and to investigate classroom socio-emotional climate factors working as moderators of teacher expectation effects.

As the head of the School/Department of Foreign Language, I seek your consent to have this project conducted in your School/Department; I seek your assurance that the teachers' and the students' choice of participation or non-participation will not affect them in the School/Department; and I also seek your permission to access students' grades in the College Entrance Examination and the College English Test Band 4. Your support and assistance would be much appreciated.

Project Procedures

The study will last for one school year, which will begin on 1st October, 2011 and will be completed by 30th July, 2012.

At the beginning of the school year, the researcher will request access from you to the students' names and grades in the National College Entrance Examination. The researcher will invite selected teachers to complete a survey which will take 20 minutes per class and invite them to be interviewed for half an hour.

In the middle of the school year, the researcher will ask students to fill out a questionnaire anonymously which may take them 20 minutes and to attend a focus group discussion which may last for one hour. For teachers, the researcher will interview them again at mid-year for half an hour.

At the end of the school year, the researcher will ask your permission to access the students' grades in the National College English Test.

Data storage

All the paper data will be stored in a locked cabinet in an office in the Faculty of Education at the University of Auckland. Consent forms will be stored separately from surveys and questionnaires. The audio data will be stored electronically on the researcher's password protected computer. All data will be held for a period of six years after which the records will be securely destroyed.

Right to Withdraw from Participation

You have the right to choose not to participate. Before 30th Dec, 2011, you will be free to withdraw your School/Department from the project, or to withdraw any information traceable to your School/Department at any point up to 30th July, 2012, without giving a reason.
The questionnaire, survey, interviews and focus groups will be conducted at a time that is mutually suitable for participating teachers and students. The teacher participants will have the opportunity to make changes to the interview transcripts for accuracy. The focus group data cannot be modified or removed once the students have agreed to participate.

Anonymity and Confidentiality

The surveys and questionnaires will not be anonymous; the participants will be asked to provide their names with their responses so that the student participants can be matched to the teacher participants for analytical purposes. However, **their names will be replaced by code numbers and the code for individual participants will be accessible to the researcher alone.**
The interviews with the teacher participants are considered confidential, and their information will not be released to any third party. Confidentiality of student information in focus groups cannot be guaranteed, however, focus group members will be asked to respect the confidentiality of other members of the group.
The information gathered in this study will be secured so that it is accessible only to the researcher. The analysis and findings will be reported in a way that prevents the identification of individuals and your school.

Contact Details and Approval Wording

> If you agree to be part of this research, please complete the attached consent form and return to the researcher.

For any queries regarding the research, please contact

The researcher	The main supervisor	The Head of School
Zheng Li	A. P. Christine Rubie-Davies	Dr Frances Langdon
School of Teaching, Learning and	School of Teaching, Learning and	School of Teaching, Learning and Development,

Development, Faculty of Education, The University of Auckland Private Bag 92601 Auckland,	Development, Faculty of Education, The University of Auckland Private Bag 92601 Auckland,	Faculty of Education, The University of Auckland Private Bag 92601 Auckland,
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There is also local contact information

Zheng Li	1-10-1, Xuefuxiaoqu, Beibei, Chongqing, China	+86-023-68284534

For any queries regarding ethical concerns you may contact

The Chair,

The University of Auckland Human Participants Ethics Committee,

The University of Auckland,

Office of the Vice Chancellor,

Private Bag 92019, Auckland 1142.

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APPROVED BY THE UNIVERSITY OF AUCKLAND HUMAN PARTICIPANTS ETHICS COMMITTEE ON 31 May 2011 for (3) years, Reference Number 2011/244

Appendix A-2

Consent Form

(Head of the School/Department)

THIS FORM WILL BE HELD FOR A PERIOD OF 6 YEARS

Project Title: Teacher Expectation Effects in Teaching and Learning English as a Foreign Language

Name of Researcher: Zheng Li

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

- I give my consent to have this research conducted in my school/Department.
- I give my assurance that the teachers' and the students' choice of participation or non-participation will not affect them at all in my school/Department.
- I understand that I am free to withdraw participation before 30th Dec, 2011, and to withdraw any data traceable to my school at any point up to 30th July, 2012.
- I wish to receive a summary of findings. YES/ NO
- I understand that no third party will have access to the information collected in this study.
- I understand that data will be kept for 6 years, after which they will be destroyed.

Name_____

School/Department _____

University_____

Signature_____

Date_____

APPROVED BY THE UNIVERSITY OF AUCKLAND HUMAN PARTICIPANTS ETHICS COMMITTEE ON 31 May 2011 FOR 3 YEARS REFERENCE NUMBER 2011/244

Appendix A-3

Participant Information Sheet

(Student)

Project title: Teacher Expectation Effects in Teaching and Learning English as a Foreign Language

Name of Researcher: Zheng Li

Researcher Introduction

My name is Zheng Li. I am enrolled in a PhD degree in the Faculty of Education at the University of Auckland. I am conducting a research project as part of the requirement for the PhD thesis. My project plans to investigate teacher expectation effects in the specific curriculum of foreign language teaching and learning.

Project Description and Invitation

With regard to the domain of foreign language instruction in which teacher-student interaction plays an important role, the current research attempts to conduct an intensive study of the potential impact of teacher expectations within foreign language classrooms. The research aims to identify teacher expectation effects for undergraduate students in foreign language classrooms, and to investigate classroom socio-emotional climate factors working as moderators of teacher expectation effects.

As a student of the College English Course, you have been selected and are being invited to be part of the research. Your teacher and the Head of your School/Department have both given an assurance that your participation or non-participation in this study will not affect their relationship with you or your grades. Your participation and assistance would be appreciated.

Project Procedures

The study will be lasting for one school year, which will begin on 1st October, 2011 and will be completed by 30th July, 2012.

At the beginning of the school year, the researcher will seek access to your English grade in the National College Entrance Exam. In the middle of the school year, you will be asked to fill out a questionnaire which is about the socio-emotional climate in your classroom. It will probably take you 20 minutes to finish the questionnaire. The questionnaire will be administered to your whole class at a time which is suitable for you all.

You may also be invited to take part in a focus group discussing your perceptions of your teacher's expectations and the classroom climate during your course. The focus group will be conducted in Chinese, will take approximately one hour and it will be held at a central venue (you will be informed of the exact venue and date by phone/email, if you agree to participate). The focus group will involve a small number of students and the researcher, and the whole discussion will be audio-recorded. At the end of the school year, the researcher will ask for permission to access your grade in the National College English Test Band 4.

Data storage

The questionnaire, audio-records and transcripts will be stored in a locked cabinet in an office in the Faculty of Education at University of Auckland. They will be held for a period of six years after which the records will be deleted and the paper surveys and transcripts will be shredded.

Right to Withdraw from Participation

Participation in any research project is voluntary. If you do not wish to take part you are not obliged to. If you decide to take part in the project and later change your mind, you will be free to withdraw from the project before 30th Dec, 2011, without giving a reason.

If you agree to participate in the questionnaires, you can withdraw your questionnaire at any point up to 30th July, 2012. Once you take part in a focus group discussion, where your responses will be collected alongside the responses of other participants, it is not possible for you to withdraw your data from the project. However, you can decide not to respond to some of the prompts should you choose to do so.

Anonymity and Confidentiality

Questionnaires are not anonymous but your **names will be replaced by code numbers and the code for individual participants will be accessible to the researcher alone**.

Confidentiality of student information in focus groups cannot be fully guaranteed, however, focus group members will be asked to respect the confidentiality of other members of the group.

The information gathered in this study will be secured so that it is accessible only to the researcher. The analysis and findings will be reported in a way that prevents the identification of individuals.

Contact Details and Approval Wording

If you agree to be part of this research, please complete the attached consent form and return to the researcher.

For any queries regarding the research, please contact

The researcher	The main supervisor	The Head of School
Zheng Li	A. P. Christine Rubie-Davies	Dr Frances Langdon
School of Teaching, Learning and Development,	School of Teaching, Learning and Development,	School of Teaching, Learning and Development, Faculty of Education,

Faculty of Education, The University of Auckland Private Bag 92601 Auckland,	Faculty of Education, The University of Auckland Private Bag 92601 Auckland,	The University of Auckland Private Bag 92601 Auckland,
+64-0211478201 zheng.li@auckland.ac.nz	+64-09-3737599 ext 82974 c.rubie@auckland.ac.nz	+64-09-6238899 ext. 48769 f.langdon@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,

Office of the Vice Chancellor,

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APPROVED BY THE UNIVERSITY OF AUCKLAND HUMAN PARTICIPANTS ETHICS COMMITTEE ON 31 May 2011 for (3) years, Reference Number 2001/244

Appendix A-4

Consent Form

(Student)

THIS FORM WILL BE HELD FOR A PERIOD OF 6 YEARS

Project Title: Teacher Expectation Effects in Teaching and Learning English as a Foreign Language

Name of Researcher: Zheng 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 this research.
- I understand that the Head of School/Department and my teacher have given an assurance that my participation or non-participation will not affect my grades or personal relationships in the school/Department.
- I agree that the researcher can access my grades for the College Entrance Exam and the College English Test Band 4 for the school year (2011-2012).
- I understand that I am free to withdraw participation at any time before 30th Dec, 2011.
- I understand that my questionnaire can be withdrawn up to 30th July, 2012, but focus group once completed cannot be withdrawn.
- I understand that my questionnaire will not be anonymous but will be confidential.
- I wish to take part in focus group. YES/NO
- I agree to be audio-recorded if I choose to participate in the focus group.
- I wish to receive the summary of findings. YES/ NO
- I agree to not disclose anything discussed in the focus group.
- I understand that no third party will have access to my information.
- I understand that data will be kept for 6 years, after which they will be destroyed.

Name _____   University _____

Email Address or Phone Number (if I agree to participate in the focus group)

_____

Signature _____   Date _____

APPROVED BY THE UNIVERSITY OF AUCKLAND HUMAN PARTICIPANTS ETHICS COMMITTEE ON 31 May 2011 FOR 3 YEARS REFERENCE NUMBER 2001/244

Appendix A-5

Participant Information Sheet

(Teacher)

Project title: Teacher Expectation Effects in Teaching and Learning English as a Foreign Language

Name of Researcher: Zheng Li

Researcher Introduction

 My name is Zheng Li. I am enrolled in a PhD degree in the Faculty of Education at the University of Auckland. I am conducting a research project as part of the requirement for the PhD thesis. My project plans to investigate teacher expectation effects in the specific curriculum of foreign language teaching and learning.

Project Description and Invitation

With regard to the domain of foreign language instruction in which teacher-student interaction plays an important role, the current research attempts to conduct an intensive study of the potential impact of teacher expectations within foreign language classrooms. The research aims to identify teacher expectation effects for undergraduate students in foreign language classrooms, and to investigate classroom socio-emotional climate factors working as moderators of teacher expectation effects.

As a teacher of the College English Course, you have been selected and are being invited to be part of the research. Should you choose to participate, your students will also be invited to be part of the study. I seek your assurance that their participation or non-participation in this study will not affect their relationship with you or their grades.

Your participation and assistance would be appreciated.

Project Procedures

The study will last for one school year, which will begin on 1st October, 2011 and will be completed by 30th July, 2012.

At the beginning of September, 2011, you will be invited to spend 20 minutes filling out a survey predicting your students' achievement in the National College English Test which will be held at the end of the school year. Possibly, you will also be invited to attend an interview about your expectations for student academic achievement. The interview will last for half an hour and be audio-recorded.

If you were interviewed at the beginning of the school year, , you will be interviewed again in the middle of the school year about the classroom climate as well as your expectations. The interview will last for half an hour and be audio-recorded.

Data storage

The surveys, audio recordings and transcripts will be stored in a locked cabinet in an office in the Faculty of Education at University of Auckland. They will be held for a period of six years after which the records will be deleted and the paper surveys and transcripts will be shredded.

Right to Withdraw from Participation

You have the right to choose not to participate, and your Head of School has provided an assurance that your participation or non-participation will not affect you in any way. Before 30th Dec, 2011, you will be free to withdraw from the project, without giving a reason. And at any point throughout the project and up to 30th July, 2012, you can withdraw any information traceable to you.

The survey and interviews will be at a time that is mutually suitable for you. During the interviews, the audio- recorder will be switched off at any time at your request. You will be welcome to make changes to the transcript for accuracy.

Anonymity and Confidentiality

Surveys are not anonymous but your names will be replaced by code numbers and the code for individual participants will be accessible to the researcher alone.

For interviews, there is no third party involved, only the researcher and yourself, so the confidentiality of the interview will be guaranteed.

The information gathered in this study will be secured so that no third party can access it. The analysis and findings will be reported in a way that prevents the identification of individuals.

Contact Details and Approval Wording

If you agree to be part of this research, please complete the attached consent form and return to the researcher.

For any queries regarding the research, please contact

The researcher	The main supervisor	The Head of School
Zheng Li	A. P. Christine Rubie-Davies	Dr Frances Langdon
School of Teaching, Learning and Development, Faculty of Education, The University of Auckland Private Bag 92601	School of Teaching, Learning and Development, Faculty of Education, The University of Auckland Private Bag 92601	School of Teaching, Learning and Development, Faculty of Education, The University of Auckland Private Bag 92601 Auckland,

Auckland,	Auckland,	
+64-0211478201 zheng.li@auckland.ac.nz	+64-09-3737599 ext 82974 c.rubie@auckland.ac.nz	+64-09-6238899 ext. 48769 f.langdon@auckland.ac.nz

For any queries regarding ethical concerns you may contact

The Chair,

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APPROVED BY THE UNIVERSITY OF AUCKLAND HUMAN PARTICIPANTS ETHICS COMMITTEE ON 31 May 2011 for (3) years, Reference Number 2001/244.

Appendix A-6

Consent Form

(Teacher)

THIS FORM WILL BE HELD FOR A PERIOD OF 6 YEARS

Project Title: Teacher Expectation Effects in Teaching and Learning English as a Foreign Language

Name of Researcher: Zheng 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 this research.
- I give my assurance that my students' choice of participation or non-participation will not affect their relationship with me or their grades.
- I understand that I am free to withdraw participation before 30th Dec, 2011, and to withdraw any data traceable to me up to 30th July, 2012.
- I agree to be interviewed.
- I agree to not disclose anything discussed in my interviews.
- I agree to my interview being audio-recorded.
- I understand that I will be offered the opportunity to edit the transcripts of the recordings.
- I wish to receive a summary of the findings. YES/ NO
- I understand that no third party will have access to my information.
- I understand that data will be kept for 6 years, after which they will be destroyed.

Name _____

University _____

Signature _____

Date _____

APPROVED BY THE UNIVERSITY OF AUCKLAND HUMAN PARTICIPANTS ETHICS COMMITTEE ON 31 May 2011 FOR 3 YEARS REFERENCE NUMBER 2001/244

Appendix B

Code: _____

Estimation of Student Achievement in College English Test (Band-4)

Dear Teacher,

You have now had a few weeks to get to know your students. Based on your knowledge and understandings of them, I would like you to estimate what level you think each of your students will achieve in CET-4 which will be held in June or July, 2012.

This is a 9-level scale of student achievement in CET-4, indicating the level to which you believe each student's achievement in CET-4 will belong. Please predict the grade each of your students probably will get, and circle the number in the right column accordingly. If you change your mind about an answer just cross it out and choose another.

1.   Less than 430

2.   431—450

3.   451—470

4.   471—490

5.   491—510

6.   511—530

7.   531—550

8.   551—570

9.   More than 570

Please circle or enter the appropriate response to your basic information:

Name: _____   **Sex:**   Male   Female

Age: less than 25   26-30   31-35   36-40   41-45   46-50   more than 51

Teaching Experience: 0-5 years   6-10 years   11-15 years   16-20 years   more than 20 years

Education Background: Bachelor   Master   PhD

 Current University: _____

Thanks for your time and cooperation

Student Name	Less Than 430	431-450	451-470	471-490	491-510	511-530	531-550	551-570	More Than 571
	1	2	3	4	5	6	7	8	9
	1	2	3	4	5	6	7	8	9
	1	2	3	4	5	6	7	8	9
	1	2	3	4	5	6	7	8	9
	1	2	3	4	5	6	7	8	9
	1	2	3	4	5	6	7	8	9
	1	2	3	4	5	6	7	8	9
	1	2	3	4	5	6	7	8	9
	1	2	3	4	5	6	7	8	9
	1	2	3	4	5	6	7	8	9
	1	2	3	4	5	6	7	8	9
	1	2	3	4	5	6	7	8	9
	1	2	3	4	5	6	7	8	9
	1	2	3	4	5	6	7	8	9
	1	2	3	4	5	6	7	8	9
	1	2	3	4	5	6	7	8	9
	1	2	3	4	5	6	7	8	9
	1	2	3	4	5	6	7	8	9
	1	2	3	4	5	6	7	8	9
	1	2	3	4	5	6	7	8	9
	1	2	3	4	5	6	7	8	9
	1	2	3	4	5	6	7	8	9
	1	2	3	4	5	6	7	8	9
	1	2	3	4	5	6	7	8	9

Student Name	Less Than 430	431-450	451-470	471-490	491-510	511-530	531-550	551-570	More Than 571

Student Name	Less Than 430	431-450	451-470	471-490	491-510	511-530	531-550	551-570	More Than 571
	1	2	3	4	5	6	7	8	9
	1	2	3	4	5	6	7	8	9
	1	2	3	4	5	6	7	8	9
	1	2	3	4	5	6	7	8	9
	1	2	3	4	5	6	7	8	9
	1	2	3	4	5	6	7	8	9
	1	2	3	4	5	6	7	8	9
	1	2	3	4	5	6	7	8	9
	1	2	3	4	5	6	7	8	9
	1	2	3	4	5	6	7	8	9
	1	2	3	4	5	6	7	8	9
	1	2	3	4	5	6	7	8	9
	1	2	3	4	5	6	7	8	9
	1	2	3	4	5	6	7	8	9
	1	2	3	4	5	6	7	8	9
	1	2	3	4	5	6	7	8	9
	1	2	3	4	5	6	7	8	9
	1	2	3	4	5	6	7	8	9
	1	2	3	4	5	6	7	8	9
	1	2	3	4	5	6	7	8	9
	1	2	3	4	5	6	7	8	9
	1	2	3	4	5	6	7	8	9
	1	2	3	4	5	6	7	8	9

Student Name	Less Than 430	431-450	451-470	471-490	491-510	511-530	531-550	551-570	More Than 571

Appendix C

College and University Classroom Environment Inventory

(CUCEI)

Today you are going to think about yourself, your teacher, his/her instructional practices and the climate in your classroom as you answer the questions in the booklet. This is a chance to tell us exactly what you feel and think. We will not share your answers with anyone. They will be completely private.

Even though there are lots of questions in this booklet, please answer every question. We really want to know what you think.

Please circle or enter the appropriate response to your basic information:

Student No.: _____

University: _____

Department/ School: _____ **Class:** _____

Your Teacher's Name: _____

Date: _____

This is a questionnaire in which there are statements about yourself, your teacher and your classroom. **It is not a test.** There are no right answers and everyone will have different answers. Be sure that your answers show how you feel about yourself, your teacher and your classroom.

PLEASE DO NOT TALK ABOUT YOUR ANSWERS WITH ANYONE ELSE WHILE YOU ARE COMPLETING THIS SURVEY.

We will keep your answers private and will not show them to anyone else.

When you are ready to begin, please read each sentence and decide on your answer. Just put up your hand if you need me to help you. There are five choices after each statement— "False", "Mostly false", "Sometimes false sometimes true", "Mostly true", "True"—indicating the extent to which you agree with the statement. There are five numbers next to each statement, for each of the answers. The answers are written at the top of the page above the numbers. Choose your answer to a sentence and put a circle around the number you choose. You may choose only one answer. If you want to change an answer you should cross out the circle and make a new circle in another box on the same line.

For all the sentences, be sure that your circle is on the same line as the right sentence. You should have only one answer for each sentence. **Do not leave out any sentences.** Once you have started **DO NOT** say your answer out loud or talk about it with anyone else. **Please ask for help if you need it.**

Please circle the number which is the most correct statement about you.

	Remember that you are describing your **actual** classroom	False	Mostly False	Sometimes True Sometimes False	Mostly True	True
1	The instructor considers my feelings.	1	2	3	4	5
2	The instructor is friendly and talks to me.	1	2	3	4	5
3	The instructor goes out of his/her way to help me.	1	2	3	4	5
4	The instructor helps me when I am having trouble with my work.	1	2	3	4	5
5	The instructor moves around the classroom to talk with me.	1	2	3	4	5
6	The instructor is interested in my problems.	1	2	3	4	5
7	The instructor is unfriendly and in considerate towards me.	1	2	3	4	5
8	New ideas are seldom tried out in this class.	1	2	3	4	5
9	My instructor uses new and different ways of teaching in this class.	1	2	3	4	5
10	The instructor thinks up innovative activities for me to do.	1	2	3	4	5
11	The teaching approaches used in this class are characterised by innovation and variety.	1	2	3	4	5
12	Seating in this class is arranged in the same way each week.	1	2	3	4	5
13	My instructor often introduces unusual activities to teaching.	1	2	3	4	5
14	I seem to do the same type of activities in every class.	1	2	3	4	5

	Remember that you are describing your **actual** classroom	False	Mostly False	Sometimes True Sometimes False	Mostly True	True
15	My class is made up of individuals who don't know each other well.	1	2	3	4	5
16	I know most students in this class by their first names.	1	2	3	4	5
17	I make friends easily in this class.	1	2	3	4	5
18	I don't get much of a chance to know my classmates.	1	2	3	4	5
19	It has taken me a long time to get to know everybody by his/her first name in this class.	1	2	3	4	5
20	I have the chance to get to know my classmates well.	1	2	3	4	5
21	I am not very interested in getting to know other students in this class.	1	2	3	4	5
22	I know exactly what has to be done in this class.	1	2	3	4	5
23	Getting a certain amount of work done is important in this class.	1	2	3	4	5
24	I often get sidetracked in this class instead of sticking to the point.	1	2	3	4	5
25	This class is always disorganised.	1	2	3	4	5
26	Class assignments are clear and I know what to do.	1	2	3	4	5
27	This class seldom starts on time.	1	2	3	4	5
28	Activities in this class are clearly and carefully planned.	1	2	3	4	5

	Remember that you are describing your **actual** classroom	False	Mostly False	Sometimes True Sometimes False	Mostly True	True
29	I cooperate with other students when doing assignment work.	1	2	3	4	5
30	I share my books and resources with other students when doing assignments.	1	2	3	4	5
31	I work with other students on projects in this class.	1	2	3	4	5
32	I learn from other students in this class.	1	2	3	4	5
33	I work with other students in this class.	1	2	3	4	5
34	I cooperate with other students on class activities.	1	2	3	4	5
35	Students work with me to achieve class goals.	1	2	3	4	5
36	I am expected to do the same work as all the students in the class, in the same way and in the same time.	1	2	3	4	5
37	I am generally allowed to work at my own pace in this class.	1	2	3	4	5
38	I have a say in how class time is spent.	1	2	3	4	5
39	I am allowed to choose activities and how I will work.	1	2	3	4	5
40	Teaching approaches in this class allow me to proceed at my own pace.	1	2	3	4	5
41	I have little opportunity to pursue my particular interests in this class.	1	2	3	4	5
42	My instructor decides what I will do in this class.	1	2	3	4	5

	Remember that you are describing your **actual** classroom	False	Mostly False	Sometimes True Sometimes False	Mostly True	True
43	The instructor gives as much attention to my questions as to other students' questions.	1	2	3	4	5
44	I get the same amount of help from the instructor as do other students.	1	2	3	4	5
45	I am treated the same as other students in this class.	1	2	3	4	5
46	I receive the same encouragement from the instructor as other students do.	1	2	3	4	5
47	I get the same opportunity to answer questions as other students.	1	2	3	4	5
48	My work receives as much praise as other students' work.	1	2	3	4	5
49	I have the same amount of say in this class as other students.	1	2	3	4	5